



**DOCTORAL THESIS**

**An International  
Comparative Analysis  
of the Regulation  
of Nursing Practice**

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*It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.*

Charles Darwin





## Acknowledgements

During the course of this study I would like to particularly acknowledge the support and expert guidance of my two Directors of Studies – Prof. Dr. Máximo Antonio.González-Jurado and Prof. Dr. Juan Vicente Beneit-Montesinos. Each brought many years of expertise, unbounded wisdom and energy but also a genuine interest and enthusiasm for the topic under investigation. This enthusiasm helped to keep me focused as well as motivated to complete the research. They also nurtured my rather primitive Spanish and gently encouraged me to persist in striving towards being bilingual.

To Rafael Lletget-Aguilar who helped me navigate the administrative processes of registering with the University I am enormously indebted both for his skills and patience.

I also wish to acknowledge the contribution of the experts who generously found the time to complete the various rounds of the Delphi study, sharing their perspectives that resulted in triggering new lines of thought.

I must thank my employer, the International Council of Nurses, who for more than a century has contributed to the literature on this subject and by so doing helped to improve both patient safety and professional development. Indeed it was through such publications that my own interest and commitment to this important subject was generated.

Finally, I must acknowledge the fantastic support I have had from my wife Denise who has tolerated with great grace my ‘absence’ due to my preoccupation with completing this study and the many hours I spent on my computer polishing the various versions of this thesis. To my children, Kenneth, Katrina and Andrew, thanks for the encouragement and humour. Last but not least to Caroline with her wonderful administrative skills and Carlos for giving me a voice when my Spanish failed me.



## Abstract

### INTRODUCTION

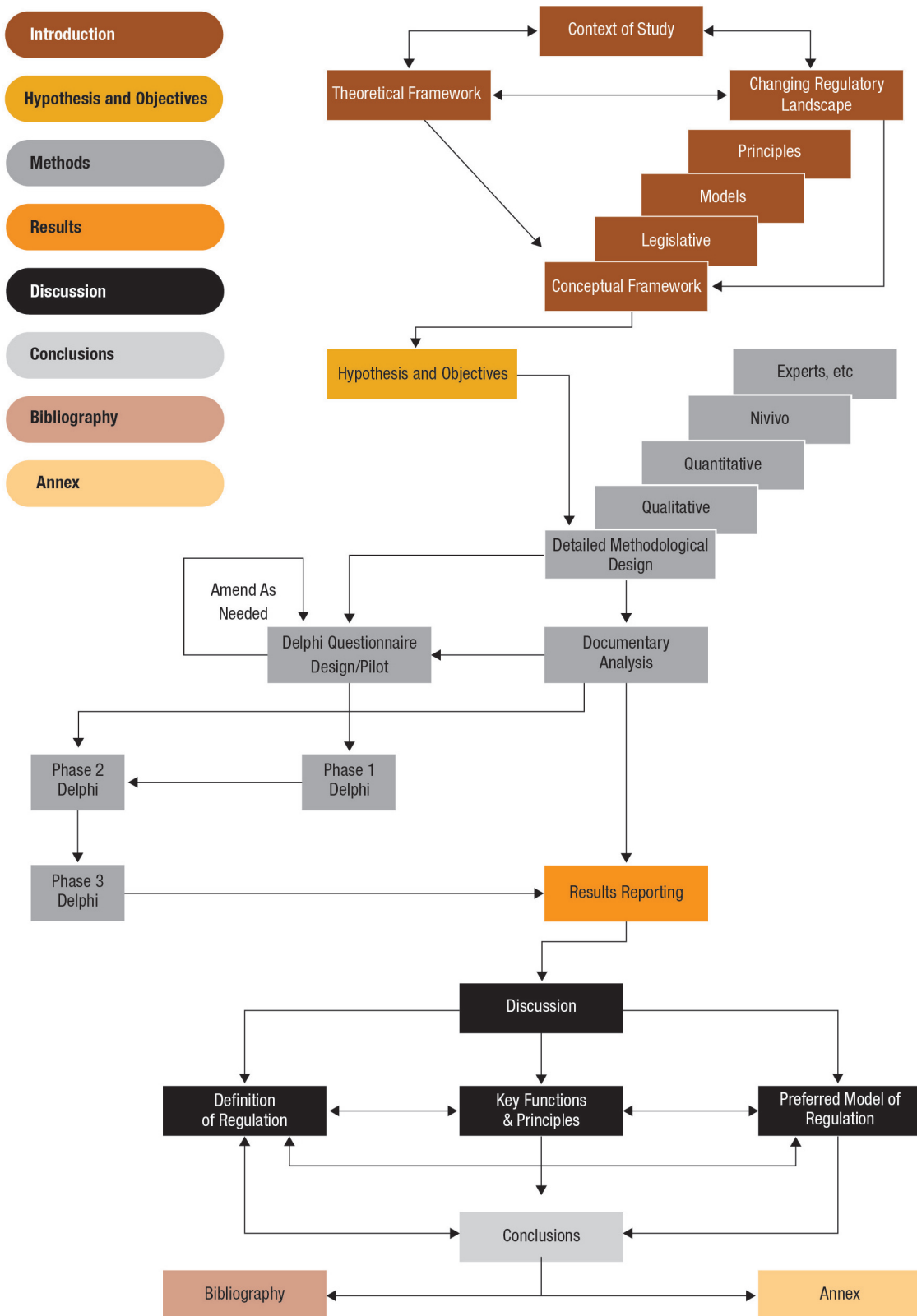
This research examines an important and neglected topic. The way that a profession is regulated provides the foundations for its education and the basis of the ethical and conduct framework against which competence is judged. It prescribes the limits of practice and the means by which its potential to evolve is facilitated or constrained.

Sadly, the level of knowledge of professional regulation even within a single jurisdiction is often woefully inadequate. At the international level, the number of studies that have examined the emergent trends in relation to professional regulation are few and do not use a systematic framework, hence comparisons and tracking trends overtime is fraught with problems. At this time, workforce shortages, health systems redesign and a range of demographic, economic and social factors are driving changes to the scope of professional practice. If nurses are to fully address these challenges, regulatory frameworks needs to support and facilitate change.

For the first time an open systems framework is used to organize and analyze global trends impacting upon professional self-regulation. Additionally, a critical examination of the principles underpinning self-regulation is conducted drawing on both the professional and wider regulatory literature so as to provide an updated and contemporary set of principles, definitions of key terms and a framework for the production of modern and comprehensive legislation.

An exploratory international comparative analysis of how the practice of nurses as specified and documented in extant legislation is described and reviewed. The analysis uses geography, legal tradition, administrative approach, regulatory model and economic status to explore the content, powers and processes associated with a random stratified sample (n=14) of jurisdictions. Though the use of documentary analysis a range of potential relationships are identified, described and explored between the dimensions and the legislative content.

The documentary analysis provides a comprehensive framework for describing the component parts of nurse legislation and this is used to inform the conduct of a policy Delphi analysis structured to generate consensus on a redefined and extended definition of professional regulation. In addition, 47 key measures, clustered under four themes of a high performing regulatory body are identified. The performance measures are also used to describe the model and administrative approach best suited to delivering these features. The majority of respondents identify that a delegated self-regulatory model administered through profession specific board is felt most likely to deliver high performance.



**Figure 1. Schematic Representation of Thesis Content**

A range of significant conclusions are reached relating to: the applicability of general systems theory to monitoring trends in professional regulation; the need for further development of specificity of definitions in nursing legislation; weaknesses in the current ICN underpinning principles for professional self regulation; and metrics that can be used to measure regulatory body performance. A number of important recommendations both for policy and further research relating to these conclusions are proposed.

## **HYPOTHESIS**

By analysing a random stratified sample of current jurisdictional nurse legislation, it is :

- possible to identify key features of current nursing legislation so as to
- develop a set of measures to judge contemporary regulatory body performance, and
- determine an optimum regulatory model and associated administrative approach congruent with a high performance regulatory body.

## **RESEARCH OBJECTIVES**

- Analyse the socio-economic, demographic and health systems context of a random stratified sample of jurisdictions;
- Develop a lexicon of key terms used in a random stratified sample of legislation drawn from diverse jurisdictions;
- Critique the key features of current nurse legislation associated with diverse professional regulatory models;
- Analyse how contemporary trends facing the profession interact with diverse models of professional regulation;
- Generate a set of measures used to judge regulatory body performance.
- Critically elaborate a contemporary definition of professional nurse regulation; and
- Determine an optimum regulatory model and associated administrative arrangements best suited to the attainment of high-performance regulatory body functioning.

## OUTLINE OF RESULTS SECTION CONTENT

This section provides details of the documentary analysis of the random stratified sample of legislation and the Delphi study results and is reported sequentially in two parts.

The first part of the results section addresses the first three objectives as set out in the section on Hypothesis and Objectives:

- Analyse the socio-economic, demographic and health systems context of a random stratified sample of jurisdictions;
- Develop a lexicon of key terms used in a random stratified sample of legislation drawn from diverse jurisdictions;
- Critique the key features of current nurse legislation associated with diverse professional regulatory models;

Part one, based on the documentary analysis, starts by reporting basic contextual information relating to each of the jurisdictions selected. This information highlights legal, demographic, economic, professional and socio-political information.

Next, the comprehensive framework of legislative content is presented and a lexicon of the associated terms described. The framework is then analysed on the basis of the key attributes (geographic regions, legal traditions, administrative approaches, regulatory models and economic status).

The second part of the results section reports the findings of the three-round Policy Delphi that address the remaining objectives set for this study.

## CONCLUSIONS

1. Hitherto this research, nurse regulation has been predominantly based on the work of **Fadwa A. Affara and Margaretta Madden Styles**, which for three decades has stood as the internationally accepted benchmark and provided both the accepted definition of nurse regulation as well as the principles upon which nursing regulation has been based.
2. I believe this research study constitutes a **major contribution to the understanding of nurse regulation at international level** and broadens and updates the seminal work established by Affara and Styles. Therefore, **this Thesis offers new foundations for the future since it provides a new definition of professional nurse regulation** to ensure public protection and to guide nurse legislation.

3. **As Chief Executive Officer of the International Council of Nurses**, it is essential that the findings of this study be integrated into the key ICN policy documents. These serve as guidance for governments and for institutions such as the World Health Organization in their efforts to establish a framework for the future.
4. The principles identified will assist governments in identifying the need for nurse regulation and now include current thinking relating to best governance practice.
5. **The glossary of terms** (lexicon) provides the foundation for international collaboration between different jurisdictions.
6. **Open systems theory** has proved to be a powerful tool for analyzing trends in regulation. It is a framework that can facilitate monitoring of change over time and can also serve as a vehicle for conducting international comparative analyses.
7. The documentary analysis offers **a comprehensive map of the architecture of nurse regulatory legislation**, thereby providing an enhanced model for drafting new legislation and for reviewing and amending existing laws.
8. By determining the main characteristics of high-performing regulatory bodies this Thesis affords a unique opportunity **to improve regulatory body functioning**. At the same time, it offers governments a basis for determining and implementing, based on international consensus, the best regulatory model and administrative arrangements.
9. **This Thesis draws attention to a number of major shortcomings in the understanding of the regulation of the nursing profession**, notably with respect to low-income jurisdictions, Islamic and civil law based jurisdictions and to the paucity of material from Asia, Africa, the former Soviet Union, Central and Latin America.
10. Thanks to this pioneering study, it is now possible to explore the potential impact of such dimensions as the income, legal tradition and geography of jurisdictions as well as that of mutual recognition agreements in terms of the structure and functioning of legislation on the nursing profession.

11. **This Thesis has already started to address the identified scientific gap and shortcomings in our understanding of the regulatory process and its supporting evidence base.** Four research articles have already been published, three of them in high-impact journals. Three other articles have been accepted and will be published in scholarly journals in July and September 2013, and three more are in various stages of development.
12. This Thesis constitutes a fundamental contribution in this area of research, as well as the starting point for a comprehensive future programme of research.



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## CONTENTS

Abstract  
Contents  
List of Tables  
List of Figures  
List of Annexes

<b>1. INTRODUCTION</b>	<b>27</b>
CONTEXT OF STUDY	29
A TIME OF CHANGE	30
THEORETICAL FRAMEWORK	34
OPEN SYSTEMS THEORY	34
OPEN SYSTEMS THEORY AND THE CHANGING REGULATORY LANDSCAPE	36
Open to Environment	36
Workforce	36
Economics and Markets	38
Quality Improvement	39
Demographics and Changing Health Needs	41
Technology	42
Education and Competence	45
Culture and Social Changes	46
Communication	47
Interrelated Subsystems	47
Clinical Teams	48
Educational Systems	48
Service Links	49
Regulators, Legislation and Regulatory Functions	49
Input–Transformation–Output Process	50
Code of Conduct	50
Scope of Practice	51
Curriculum Updating	52
Entry Requirements	53
Continuing Competence	53
Faculty Competence	54
Teleology or Purpose	55
Protecting the Public	55
Promoting the Profession	56

Feedback. . . . .	57
Individual Performance. . . . .	57
Organisational Performance . . . . .	58
Homeostasis . . . . .	59
Equifinality . . . . .	60
Composite Overview of Open Systems Approach to a Changing Regulatory Landscape. . . . .	61
<b>CONCEPTUAL FRAMEWORK . . . . .</b>	<b>62</b>
Public Interest Theory . . . . .	71
Capture Theory . . . . .	71
Political Economy Theory. . . . .	71
<b>REGULATORY BODY GOVERNANCE AND SYSTEMS. . . . .</b>	<b>73</b>
<b>SUMMARY OF DIMENSIONS OF MODELS TO BE STUDIED . . . . .</b>	<b>75</b>
<b>ADMINISTRATIVE SYSTEMS . . . . .</b>	<b>82</b>
Single Structure Systems . . . . .	83
Division of Power Systems. . . . .	83
Umbrella Systems . . . . .	83
<b>PRINCIPLES UNDERPINNING CONTEMPORARY REGULATION. . . . .</b>	<b>86</b>
<b>CURRENT MECHANISMS FOR EXERCISING PROFESSIONAL REGULATION . . . . .</b>	<b>94</b>
Registration . . . . .	98
Use of Title . . . . .	98
Licensure . . . . .	98
Negative Licensing . . . . .	99
Certification . . . . .	99
Information Regulation . . . . .	99
Transaction Regulation . . . . .	99
Conduct . . . . .	99
Health . . . . .	100
Competence and Continuing Education . . . . .	100
<b>KEY POINTS FROM EXISTING LITERATURE . . . . .</b>	<b>100</b>
 <b>2. HYPOTHESIS AND OBJECTIVES . . . . .</b>	 <b>103</b>
STATEMENT OF PROBLEM. . . . .	105
HYPOTHESIS. . . . .	105
RESEARCH OBJECTIVES . . . . .	105

<b>3. METHOD</b>	<b>107</b>
RESEARCH PARADIGM	109
DATA COLLECTION METHODS	109
Documentary Analysis	110
The Analytical Approach in Relation to Documentary Analysis	111
The Legislation for the Documentary Analysis	112
Selecting the Sample of Legislation	112
Delphi Analysis	113
The Panel of Experts	116
Selecting the Experts	16
Securing the Commitment of the Experts	117
Panelist Anonymity	117
Designing the Delphi Instruments	118
Criteria used to Assess Questions Posed in the Instruments	118
Feedback to Panelists at the end of Rounds One and Two	119
Defining Consensus	119
TRIANGULATION	120
ETHICAL AND INSTITUTIONAL APPROVALS	121
LIMITATIONS	121
 <b>4. RESULTS</b>	 <b>123</b>
OUTLINE OF RESULTS SECTION CONTENT	125
RANDOM STRATIFIED SAMPLE OF JURISDICTIONS FOR DOCUMENTARY ANALYSIS	127
Australia	128
Brazil – The Federal Republic of Brazil	129
Ethiopia	130
India – Republic of India	131
Iran – Islamic Republic of Iran	132
Jamaica	133
Jordan – Hashemite Kingdom of Jordan	134
Karnataka – State of India	135
New Brunswick – Province of Canada	136
New Zealand	137
Norway	138
Rwanda	139
Spain	140
Taiwan	141
Random Stratified Sample of Jurisdictions and Associated Key Dimensions	142

---

THE COMPREHENSIVE FRAMEWORK. ....	143
NODES IN THE COMPREHENSIVE FRAMEWORK – A LEXICON OF TERMS .....	145
SIMILARITIES AND DIFFERENCES BASED ON KEY ATTRIBUTES. ....	148
Title .....	148
Definitions .....	149
Purpose of Legislation .....	154
Council Related Elements .....	155
Operative Rules .....	156
Powers of Minister or Oversight Authority .....	156
Power of the President. ....	157
Power of the Registrar or Chief Executive officer .....	157
Mutual Recognition .....	157
Related Legislation .....	158
Enactment .....	159
Responsibilities and Functions .....	159
Relationships at Level 1 regarding the node Responsibilities and Functions. ....	159
Relationships at Level 2 regarding the node Responsibilities and Functions. ....	159
Relationships at Level 3 regarding the node Responsibilities and Functions. ....	160
DESCRIPTIVE STATISTICS OF THE CHARACTERISTICS OF THE DELPHI RESPONDENTS .....	160
ROUND ONE DATA – A DEFINITION OF PROFESSIONAL NURSE REGULATION ..	163
ROUND ONE DATA – FEATURES OF HIGH PERFORMING REGULATORY BODIES ..	165
ROUND TWO DELPHI DATA. ....	165
ROUND TWO DATA– A DEFINITION OF PROFESSIONAL NURSE REGULATION ..	165
ROUND TWO DATA – FEATURE OF HIGH PERFORMING REGULATORY BODY ...	168
ROUND TWO DATA – MODEL OF REGULATION AND ASSOCIATED ADMINISTRATIVE ARRANGEMENTS .....	170
ROUND THREE DATA – DEFINING PROFESSIONAL NURSE REGULATION .....	176
ROUND THREE DATA – FEATURE OF HIGH PERFORMING REGULATORY BODY REVISITED. ....	177

---

ROUND THREE DATA – MODEL OF REGULATION AND ASSOCIATED ADMINISTRATIVE ARRANGEMENTS REVISITED .....	182
<b>5. DISCUSSION .....</b>	<b>185</b>
EXPLORING AN INTERNATIONAL COMPARATIVE FRAMEWORK OF HOW THE PRACTISE OF NURSES IS REGULATED .....	187
EXPLORATION OF KEY ATTRIBUTES .....	190
LEXICON OF TERMS .....	194
DELPHI STUDY RESPONSE RATE .....	197
WHAT DO WE MEAN BY REGULATION? .....	199
Occupational Regulation .....	200
Professional Regulation .....	201
FEATURES OF A HIGH PERFORMING REGULATORY BODY .....	202
<b>6. CONCLUSIONS .....</b>	<b>207</b>
<b>BIBLIOGRAPHY .....</b>	<b>211</b>
<b>ANNEXES .....</b>	<b>233</b>

## LIST OF TABLES

Table 1	Open systems theory concepts and illustration of their relationship to nurse regulation. . . . .	35
Table 2	Cross-tabulation of workforce with open to environment, inter-related sub-systems and input-transformation-output processes. . . . .	66
Table 3	Cross-tabulation of technology with open to environment, inter-related sub-systems and input-transformation-output processes. . . . .	67
Table 4	Cross-tabulation of communication, demographic and changing health needs and quality improvement with open to environment, inter-related sub-systems and input-transformation-output processes. . . . .	68
Table 5	Cross-tabulation of education and competence, culture and social changes and economics and markets with open to environment, inter-related sub-systems and input-transformation-output processes. . . . .	69
Table 6	Augmented definitions of regulation by Baldwin et al. (1998) . . . . .	73
Table 7	Augmented summary of levels of regulation as defined by Benton (2007a) . . . . .	74
Table 8	Matrix of advantages and disadvantages of different types of regulatory model (Benton 2008). . . . .	76
Table 9	Modified description of the four points on the regulation continuum as proposed by Bartle and Vass (1998) . . . . .	77
Table 10	Five-point continuum of professional nurse regulation. . . . .	82
Table 11	Models of umbrella regulation from occupational regulation, Office of the Legislative Auditor State of Minnesota (1999). . . . .	85
Table 12	Summary of models to describe administrative approaches . . . . .	85
Table 13	Regulatory principles as modified and described by Benton and Morrison (2009a). . . . .	87
Table 14	Summary of the amended list of principles and their modified description from Benton, et al <sup>b</sup> . (2013) . . . . .	91
Table 15	Comparison of principles identified from updated critical analysis by Benton, et al <sup>b</sup> . (2013). . . . .	95
Table 16	Summary of mechanisms used to exercise professional regulation. . .	98



---

Table 17	Summary of key dimension for random stratified sample of jurisdictions . . . . .	142
Table 18	Illustrative example of name and associated description of a node . . .	148
Table 19	Detailed breakdown of frequency of 'definitions' coded from source jurisdictions ranked by attributes (geographic region, economic status, legal tradition) . . . . .	151
Table 20	Detailed breakdown of frequency of 'definitions' coded from source jurisdictions ranked by attributes (administrative approach and regulatory model) . . . . .	152
Table 21	Summary table of data from sources, coded to node “definitions” with associated attributes and sub-node data . . . . .	153
Table 22	Summary of participation in the various stages of data collection . . .	161
Table 23	Distribution of backgrounds of respondents. . . . .	162
Table 24	GNI categories of countries where respondents work . . . . .	162
Table 25	Legal traditions of countries where respondents work . . . . .	163
Table 26	Quantitative results relating to round two definition of professional regulation . . . . .	166
Table 27	Top five features by dimension and aggregated position . . . . .	171
Table 28	Bottom five features by dimension and aggregated position. . . . .	174
Table 29	Quantitative results relating to round three thematic presentation of performance measures. . . . .	179
Table 30	Example taken from ICM (2011) Glossary of Terms. . . . .	195
Table 31	Illustrative example of metric for a specific statements . . . . .	202

## LIST OF FIGURES

Figure 1	Schematic Representation of Thesis Content. . . . .	8
Figure 2	Schematic representation of Application of Open Systems Framework to the Changing Regulatory Landscape . . . . .	63
Figure 3	Mind-Map of Application of Open Systems Approach to the Literature on the Changing Regulatory Landscape . . . . .	64
Figure 4	The Embedded Nature of Nurse Regulation. . . . .	70
Figure 5	Categorisation of Provinces and Territories Reproduced from The Conference Board of Canada, 2007. . . . .	81
Figure 6	Stratified Random Selection of Legislation . . . . .	113
Figure 7	Schematic Representation of Policy Delphi Process . . . . .	115
Figure 8	Summary of Process used to Generate Part 1 (Documentary Analysis) of Results addressing Research Objectives 1–3. . . . .	126
Figure 9	Map and Flag of Australia . . . . .	128
Figure 10	Map and Flag of Brazil . . . . .	129
Figure 11	Map and Flag of Ethiopia . . . . .	130
Figure 12	Map and Flag of India . . . . .	131
Figure 13	Map and Flag of Iran. . . . .	132
Figure 14	Map and Flag of Jamaica. . . . .	133
Figure 15	Map and Flag of Jordan. . . . .	134
Figure 16	Map of and Flag Karnataka state, India . . . . .	135
Figure 17	Map and Flag of New Brunswick, Canada . . . . .	136
Figure 18	Map and Flag of New Zealand . . . . .	137
Figure 19	Map and Flag of Norway . . . . .	138
Figure 20	Map and Flag of Rwanda. . . . .	139
Figure 21	Map and Flag of Spain . . . . .	140
Figure 22	Map and Flag of Taiwan . . . . .	141
Figure 23	Schematic Representation of the Initial Nodes From the Comparative Analysis by Benton and Morrison 2009b. . . . .	144
Figure 24	Extract from Methodological Memos Generated during Qualitative Analysis of Source Material. . . . .	145

---

Figure 25	Schematic representation of Nodes generated through Data Driven coding of Sources Material to Describe Comprehensive Comparative Framework.....	146
Figure 26	Line Graph of Frequency of use of node definition relative to source legislation .....	150
Figure 27	Round Three Questionnaire Definition and Associated Elaboration of Five Component Parts.....	169
Figure 28	Thematic Mapping of the 49 Statements.....	172
Figure 29	Summary of Responses Relating to Regulatory Models .....	175
Figure 30	Summary of Responses Relating to Administrative Approaches.....	176
Figure 31	Final Revised and Extended Definition of Professional Nurse Regulation .....	178
Figure 32	Final Thematic Mapping of the 47 Key Statements Relating to High Performing Regulatory Bodies.....	180
Figure 33	Breakdown of Random Stratified Sample of Sources against Key Attributes .....	189
Figure 34	Country income groups as defined by the World Bank (2012) .....	192
Figure 35	Dominant legal tradition of countries, Blackman and Srivastavan (2011) –(for greater specificity see Annex 12).....	193

## ANNEXES

Annex 1	List of Critical Reviewers Involved in Questionnaire Development for Rounds 1, 2 and 3 of the Delphi Study . . . . .	A3
Annex 2	Names and Country of Origin of the Panel of Experts Participating in the Delphi Study . . . . .	A7
Annex 3	Letter Recruiting Panelists to Participate in Delphi study . . . . .	A11
Annex 4	Round One – Delphi Study Instrument and Explanatory Notes . . . . .	A15
Annex 5	Round Two – Delphi Study Instrument and Explanatory Notes . . . . .	A23
Annex 6	Round Three – Delphi Study Instrument and Explanatory Notes . . . . .	A45
Annex 7	Papers Published in the Course of this Study . . . . .	A85
	• Benton, D.C. (2011) International Issues and Trends in Nursing Regulation. <i>Journal of Nursing Regulation</i> 4:1, 4–8. . . . .	A89
	• Benton, D. González-Jurado, M. Beneit-Montesinos, J. (2013) A structured policy review of the principles of professional self-regulation. <i>International Nursing Review</i> 60:1, 13–22. . . . .	A95
	• Benton, D. González-Jurado, M. Beneit-Montesinos, J. (2013) Nurse faculty migration: a systematic review of the literature. <i>International Nursing Review</i> 60:2. . . . .	A105
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Annex 8	Listing of Nodes and the Associated Descriptions (Lexicon of Terms) . . . . .	A141
Annex 9	Node Summary Data Tables . . . . .	A155

---

Annex 10	Summary Tables of Respondent Frequencies to Delphi Study Rounds . . . . .	A189
Annex 11	Mean scores for Desirability, Feasibility, Importance and Confidence for each of the 49 features and the associated aggregated mean . . .	A197
Annex 12	Regional Maps of the Legal Tradition of Countries . . . . .	A203









## CHAPTER 1 INTRODUCTION

### CONTEXT OF STUDY

The International Council of Nurses (Styles and Affara, 1997) defines nurse regulation as:

***“All of those legitimate and appropriate means —governmental, professional, private, and individual— whereby order, identity, consistency, and control are brought to the profession. The profession and its members are defined; scope of practice is determined; standards of education and ethical and competent practice are set; and systems of accountability are established through these means.”***

*Styles y Affara (1997)*

Professional self-regulation is a privilege and, in addition to protecting the public, it is said to enhance the political, social and economic power of the occupational group concerned (Shimberg, 1982; Gross, 1984; Freidson, 1994). It is therefore perhaps not surprising that, since its very inception, the International Council of Nurses has, through a number of work programmes and projects, pursued activity in relation to the development of nurse regulation (Benton and Morrison 2009a). The International Council of Nurses advocates for the profession and, through its actions, speaks globally with one voice on a range of key issues. During more than 110 years of its existence, the International Council of Nurses has frequently lobbied for the development of legislation that introduces regulation of the profession, establishes regulatory bodies and implements the associated processes so as to protect the public, establish standards of quality practice and advance the profession.

For more than one century the work of ICN, in promoting the development of laws and bodies to protect the public and support the advancement of the profession, has had considerable success. However, in a recent ICN publication, the authors, Benton and Morrison (2009a), highlight that regulation of the profession is now far more complicated than in the past. No longer is protection of the public, establishment of standards and the advancement of professional practice the responsibility of a single actor such as the regulatory body. Instead Benton and Morrison (2009a) assert that the practise of an individual nurse is regulated by many actors who often achieve this through a wide range of processes, guidance and standards that can and do impact on the day-to-day work of the nurse. The forces impacting on the profession may not be limited to those emanating exclusively from the nurse-practice act. In short, there is explicit recognition of the full breadth of the definition framed by Styles and Affara (1997). Nevertheless, the work by

Benton and Morrison (2009a) does not fully delineate the various actors, the range and extent of their contributions or indeed how they interact. This is perhaps not surprising since it mirrors the situation and the conclusions reached by Black (2002) in her exploration of the wider regulation literature noting:

***“Once regulation is not seen as something tied exclusively or even predominantly to the state, it is not clear where its boundaries lie either as a social practice or as an academic discipline”.***

*lack (2002)*

In preparing to research this topic and having conducted extensive reviews of the literature, it is appropriate to conclude that regulation of the nursing profession is on the whole a poorly researched subject as can be demonstrated by the almost total absence of scholarly writing on the topic. This lack of evidence, at least in part, can be explained by the findings of both Canadian and British researchers who noted that health professions in general (The Conference Board of Canada, 2007) and nurses in particular know very little about the subject and even confuse the responsibilities of the regulator with those of the professional association and trade union (JM Consulting, 1998). Much of the material that is available, up to this point, has been conducted under the auspices of the International Council of Nurses who has tended to use nurse leaders and government officials as key informants for such work. These publications are often based on the analysis of contributions from structured workshop events (ICN, 1960; ICN 1969; ICN, 1985; Affara and Styles, 1992; Styles and Affara, 1997; Bryant, 2005). Published as a series of project reports and monographs and despite being subject to expert review, they tend to lack detailed explanation of the methods of inquiry and analysis and rationale for sample selection. Much of this work – including the seminal study “The Nursing Regulation: Moving Ahead”, launched in 1988 and principally funded by a grant by the W.K. Kellogg Foundation, providing significant global coverage (11 workshops with representatives from 77 countries) – is almost silent in relation to the details of any underpinning theoretical and conceptual basis for the study (Affara and Styles, 1990). In short, there exists at best, a partial research-based exploration of the topic of nurse regulation.

## **A TIME OF CHANGE**

The nursing profession and the role of the nurse has been subject to considerable change over the past decades, yet to date, investigation and analysis of the topic of nurse regulation and its impact has not been studied to any great extent using rigorous research-based approaches. Although a wide range of opinion papers can be found (Esterhuizen, 1996; Rowell, 2003; Benton, 2007b;) these lack academic rigour and as such do not provide an evidential base to support the research-based redesign of contemporary professional regulation.

In many jurisdictions the practise of nurses is delineated by nurse practice acts that have evolved over time. It is recognised in the Anglophone literature that modern day regulation of the nursing profession followed on after the establishment of medical regulation in 1858. In the case of nurse regulation, although the debate commenced in England, the first nurse practice act was passed on 12 September of 1901 in New Zealand. The New Zealand act alongside those of the medical profession was based on what has been consistently referred to as a ‘self-regulation model’. This is not the only model and in many jurisdictions a state-based model, either uniquely focused on a single discipline or as part of wider umbrella or omnibus arrangement, is in place. Alternatively, models that can be described as co-regulation based, where both the state and the profession fulfil delineated roles, are also in use. These different models are explored in detail later in this chapter.

Despite the availability of various regulatory models, self-regulation—a term that will be shown later to be used rather loosely with differing definitions—is the preferred approach advocated by the professions to be used to regulate the practice of professionals (Chamberlain, 2009; Balthazard, 2010). Although explored in far more detail later in this study, this approach is said to utilise the expertise of the profession, act to protect the public and simultaneously grant professions the necessary autonomy to act in a manner that avoids political imperatives. For clarification at this point Balthazard (2010) describes self-regulation as:

***“...an approach based upon the concept of an occupational group entering into an agreement with government to formally regulate and control the activities of its members.”***

Acknowledging this preference for self-regulation, it is perhaps surprising that views on the approach seem polarised. Debates over the prime purpose of professional self-regulation fall into two general camps – advocates for the approach are unequivocally of the view that this is the best way to protect the public (Styles and Affara, 1997; Bryant, 2005). Whereas, antagonists take the view that self-regulation is about protecting and promoting the profession (National Consumer Council, 1999). Irrespective of the view taken, professional self-regulation is a model which enables government to have some control, normally set out in the establishing legislation or decree (law), over the practice of the profession and the services they provide without having to maintain the specialist knowledge and expertise to regulate the profession and discharge the powers given to the regulatory body by the law.

In recent years, the concept of self-regulation has been challenged from a number of perspectives. Self-regulation has been the subject of intense professional, media and social scrutiny (Salter, 2004; National Consumer Council, 1999; Gladstone et al., 2000; Bartle and Vass, 2005; Conference Board of Canada, 2007; Young, 2009). Much of this interest has been driven by high profile failures of the existing regulatory systems. In truth the high profile cases such as children dying unnecessarily in Bristol, retaining

organs without permission at Alder Hey, and the unlawful killing of more than 200 people by Harold Shipman have brought intense debate as to how health professions in general and the medical profession in particular are regulated.

The problem of rogue practitioners is neither new nor limited to the United Kingdom and whilst the nursing profession was involved to a peripheral extent in these most recent high-profile heinous events it cannot ignore the intense scrutiny that they bring particularly since nursing in the past has had its share of infamous practitioners. Jane Toppan, confessed to 31 murders in 1901 in the United States; Beverly Allitt from the North East of England murdered four children and injured nine others; Christine Malevere killed six of her patients in a hospital near Paris, France; Charles Cullen killed at least 29 people over a 16 year period in two different states across ten different health facilities in America; and Daisuke Mori from Japan was sentenced to life imprisonment for killing one person and attempting to murder four others. With such a history, nurses cannot ignore recent calls to review the way the profession is regulated so as to ensure patients and the public are adequately protected. These calls have resulted in concrete proposals for change in the United Kingdom and elsewhere (van Zwanenberg, 2004; Allsop and Jones, 2006; Federation of State Medical Boards, 2008). However, proposed changes to professional regulation cannot be seen in isolation but rather as part of the wider context of government's concerns with the need to review regulation in its broadest sense (Better Regulation Taskforce, 2005; Regulation Taskforce, 2006).

Some of this wider scrutiny has been brought about through the demands of business to deregulate, thereby removing unnecessary bureaucracy such as proposals designed to facilitate the free movement of persons so as to enable them to provide their services in other countries (Smith, 2007; Better Regulation Taskforce, 2005; Monetary Authority of Singapore, 2010). If these factors are not sufficient to trigger change then the far-reaching impacts of the economic crisis in 2008 needs to be recognised as a further, potentially major, driver for change. With existing systems of financial regulation and governance being found wanting in many countries, especially in light of increased globalisation, regulatory review is a significant focus for action around the world (UNCTAD 2010). Indeed, in the wake of the financial crisis the recent analysis on corporate governance, often associated with the literature on regulation, would appear to bring added scrutiny as it was said:

***“It is increasingly recognized that many of these governance weaknesses also apply to other areas. Consequently, on-going corporate governance reforms in many jurisdictions apply not only to the financial sector but to other sectors in general.”***

UNCTAD (2010)

Indeed this scrutiny has already begun as a result of consistent and persistent governance and performance failures of the Nursing and Midwifery Council of the United Kingdom (Council for Health Care Regulatory Excellence, 2012). Accordingly, if professional regulation of nurses is to remain in step with contemporary needs of patients and citizens then not only is it necessary to consider the wider context but also the specific demands of both current and emergent practise.

This study is predicated upon the belief that by drawing upon current experiences of different regulatory approaches and viewing these within current and future challenges the profession will be in a better position to shape the next generation of regulatory processes and thereby protect the public. The researcher also contends that regulatory reform does not exist in a vacuum. With health systems redesign being at the heart of many country policy agendas these forces along with wider changes such as increased trade agreements, that make freedom of movement of persons far easier, are impacting upon as well as reacting and interacting with the changing role of the nurse in society and our health systems (World Health Organization, 2010a). Additionally, changes at the practitioner level, including the impact of a range of push and pull factors (Buchan, 2006) is simultaneously contributing to the dynamics of regulatory change. For example, nurses who qualify in one jurisdiction may move to another and as a result experience a different regulatory regime and/or face complex adaptation requirements (Bryant, 2005). The public themselves are also part of the drive for change specifically as information on quality of care and treatment options become more available to the general public the relationship between the profession and the public is changing (Salter 2004). Furthermore, through mechanisms such as health tourism where a patient chooses to move to a country to receive a treatment at equal or better quality, often at lower cost and/or within a shorter timeframe, nurses are increasingly providing services to people who come from countries with differing regulatory frameworks (Benton 2011). Finally, with governments finding it increasingly difficult to control the costs of health care and invariably looking to see how value for money can be secured, new cadres of worker are being introduced and scopes of practice of existing professionals changed (World Health Organization, 2008). These are but a few of the contextual factors impacting on practice at this time – each, to a greater or lesser extent, impacting on the way nursing is regulated.

An initial analysis of nurse regulation and nursing legislation has highlighted that there are significant differences between jurisdictions in the extent of powers included within nurse practice acts, the composition and level of autonomy of the bodies charged with enacting these powers and the processes used to exercise the powers (Benton and Morrison (2009b). However, as indicated in the definition by Styles and Affara (1997), there may be a much wider range of actors impacting upon and shaping the practice of nurses and as a result the time seems particularly opportune to update our understanding of what we mean by professional nurse regulation and how it can be delivered.

## THEORETICAL FRAMEWORK

It has been suggested that nurse regulation is no longer the sole mechanism for securing patient safety but instead nurse regulation ***“forms part of an orchestra”*** that collectively contributes towards patient safety (Benton and Morrison 2009a). In short, the manner by which a nurse’s practice is controlled is far more complex than it has been in the past. Bouchard (2008), when looking at how systems models could explain the regulation of medical research and product development, noted that linear models tended, in the past, to dominate the analysis of the behaviour of individuals. However, he then went on to state that such linear models are narrow in range and simple in the nature of the assumptions and operational conditions that characterise them. Indeed, Bouchard (2008) continued by asserting that, despite their good intent, linear models tend to accrue knowledge in relation to discrete silos and as such often inhibit or even prevent, through unintended consequences, the goal they set out to achieve. Accordingly, he advocated for the use of systems models that he contended are far better positioned to deal with complex and dynamic change with many interacting factors.

## OPEN SYSTEMS THEORY

Ludwig von Bertalanffy, in the 1940s when examining biological systems, was attributed with developing the theoretical approach of open systems theory and referred to this as ‘general systems theory’. Since then this approach has been applied to the investigation of a wide range of areas; as a result the theoretical basis has been elaborated. Specifically, general systems theory was refined by the work of Kast and Rosenzweig (1972) who described seven key concepts, which are particularly relevant to the focus of this study as can be seen from Table 1 which provides a summary description of each concept and offers brief examples of how they relate to nurse regulation.

**Table 1. Open systems theory concepts and illustration of their relationship to nurse regulation**

CONCEPT AND DESCRIPTION	APPLICATION OF CONCEPT TO NURSE REGULATION
<b>Open to environment.</b> The system can interact with the environment and as a result grow and change over time.	As nurses have moved from a hospital schools of nursing training to a university based educational preparation, the content and level of curricula, the means of approving and regulating programmes has changed.
<b>Interrelated subsystems.</b> The system contains a set of interrelated subsystems which results in the behaviour of the total system being greater than the sum of the parts.	The nurse regulatory system contains a series of sub-systems that are often set out as powers in the establishing legislation – the power to set standards for entry and education, the power to deal with conduct and competence deficits, etc.
<b>Input–transformation–output process.</b> The system is constantly taking inputs and transforming them into outputs.	Nurse regulatory systems control the entry of student nurses into approved educational programmes and through completion of both theoretical and practical education attain, sometimes after completing a final assessment, a nursing qualification and licence to practice.
<b>Teleology or purpose.</b> The system being studied is said to have a purpose or goal.	Most recent writers on the subject of nurse regulation agree that the prime purpose of nurse regulation is to protect the recipient of the nurse's actions.
<b>Feedback.</b> Is the mechanism for using a comparison of planned effects with those desired to provide a means of feeding back the difference to better achieve the desired results.	The nurse regulatory feedback system is designed to ensure that nurses are and remain fit for practice. This entails the use of conduct and competence processes as well as, in an increasing number of countries, live registers that have requirements for continuing education and or continuing competence.
<b>Homeostasis.</b> Is the ability of the system to achieve a state of dynamic equilibrium.	Nurse regulation should ensure that nurses are fit to practice and meet patient and population health needs. As health needs change, health systems evolve and accordingly regulation evolves through mechanisms such as programme approval and accreditation processes set alongside changing scopes of practice thereby achieving homeostasis.
<b>Equifinality.</b> Is the ability of a system to attain the same final state from many different initial conditions.	Increasingly regulatory bodies are introducing multiple–entry pathways to the attainment of nurse licensure. Some countries have nurses with the same licence but different academic qualifications for initial registration (diploma, associate degree, baccalaureate degree and masters' degree). In some countries through step–on programmes individuals can enter 2nd year of RN programmes having completed assistant or health worker training. Also nurses who qualified as enrolled nurses or licenced practical nurses can, after a top–up (additional) programme, convert to RN licence level.

## OPEN SYSTEMS THEORY AND THE CHANGING REGULATORY LANDSCAPE

There have been a number of papers written that seek to examine the changing regulatory environment. A number of organisations such as the International Council of Nurses and various regulatory bodies have completed, often on a recurrent basis, environmental scans that identify various trends and issues impacting on nurse regulation; however, none of these, nor the other papers considered, have used the open systems framework to support the analysis. In preparing this section the relevant literature was reviewed using the seven concepts of the open systems framework to explore the content of the papers. This resulted in the emergence of a significant number of themes and sub-themes.

### Open to Environment

It is evident, from examination of the literature, that there is a wide range of issues impacting on the macro direction, design and functioning of professional regulation at this time. For example, when providing evidence to the Australian Government who were looking at regulatory systems reform Professions Australia (2005) stated:

*“It is clear that matching the flow of graduates to individual community needs is an increasingly important issue. Globalisation, technological and demographic change and the desirability of maintaining positive economic growth will only increase the pressure on governments and other stakeholders to take appropriate action to support and implement initiatives to address occupational and skill imbalances. Failure to anticipate and develop appropriate responses to these challenges risks adverse impacts on employment, income, income distribution and social cohesion over the longer term.”*

Subsequent sections will, through the various concepts included in the open systems framework, explore the various dimensions referred to in the above citation (demographics, needs, economics, globalisation and technology) and expand and augment these with additional perspectives identified by other authors.

### Workforce

The theme of how regulation impacts on workforce is commonly reported in the literature on regulation. However, this general theme appears to be composed of three specific dimensions:

- Mutual recognition, migration and workforce mobility;
- Workforce reform, efficiency and effectiveness; and



- Workforce planning.

There is recognition of a global nursing shortage and mal-distribution of nurses across and within jurisdictions as well as between sectors (public-private-voluntary) and geographic distribution within countries (WHO, 2006). This shortage has contributed to increased migration of nurses from rural to urban, from sector to sector and from one jurisdiction to another (often from developing to developed economics). Governments have become frustrated when their efforts to rectify these shortages have been impeded by what they see as regulatory barriers to mutual recognition, migration and workforce mobility (WHO, 2006). Getting the right balance between the speedy processing of applications versus the need to make sure that nurses are not only appropriately qualified but also have no outstanding conduct allegations can generate significant work for the regulator. Added to this Benton (2011a) also noted that within the context of the recent economic crisis:

***“Many regulatory bodies have to cope with a large volume of nurses moving around, and the issue of jurisdictional practice is a significant challenge, particularly when the direction and magnitude of the flows can change in such a rapid and unpredictable manner.”***

The shortage of nurses has also resulted in governments focusing on workforce reform that seeks to pursue more efficient and effective solutions often by looking to introduce new cadres of workers or through changing existing scopes of practice. New cadres are, at least initially, often unregulated and as a result questions of who does what and to what standard often emerge. Also issues of who educates and supervises these new groups can often generate considerable debate (WHO, 2008).

The third dimension attracting considerable attention is the lack of comprehensive and functioning work force planning systems. Carlton (2006) forcefully stated:

***“Perhaps the most significant imperative driving reform and rationalisation of the regulatory arrangements for the health professions is the need for a regulatory system that optimises the flexibility and sustainability of the health workforce. Daily newspapers report a crisis in our health care system with shortages of doctors, nurses and many other allied health professionals. The pressures are particularly acute in public hospitals, mental health and aged care. Shortages are projected to grow over the next five to ten years.”***

The inadequacies of current health workforce planning systems have been long recognised by WHO (2006) but when the views of Carlton (2006) are seen within the context of those expressed by the Pew Health Professions Commission (1995b) who recognise that there can be added opportunities, namely:

***“Because most health professionals are licensed, certified, or registered by state boards or departments, a fundamental link already exists between the professions and state regulatory agencies. This connection could support accessible, standardized and simple state-wide data collection for health workforce analysis and planning. The collection of basic workforce data by regulatory agencies would greatly increase the effectiveness of both the current regulatory system and the larger health care system.”***

A potential solution may be available if, as is the case in some jurisdictions, the core functions of the regulator are adjusted to facilitate such a contribution through the provision of regular, timely and accurate data on the stocks, flows and demographic profiles of the various categories of registrant.

### **Economics and Markets**

The economic crisis of 2008 has had profound effects on both health care systems and those bodies that regulate the professions (Benton, 2011a). From consideration of the various articles published, resource constraints in terms of health systems delivery and regulatory body operation as well as market globalisation, restructuring and reform feature prominently.

Countries struggling to bring their national debt under control have, in some cases, had to cut back significantly on public spending. In those countries where health care is publically provided these cuts have resulted in reductions in the numbers of staff, wage freezes or cuts and rationalisation of services (Royal College of Nursing, 2011). Med-EmergInc (2005) noted that when there are no permanent full-time positions available and/or the working conditions do not meet the professional's expectations they may leave and seek work in another jurisdiction. Those countries where the budget of the regulator is controlled by government have also been confronted with reductions in their budget. The Federation of State Medical Boards (2008) identified that:

***“A major constraint on innovation by medical regulators is variation in the funds available to them as a result of differences in the annual fees.”***

Furthermore, the Federation of State Medical Boards, (2008) went on to note:

***“In the real world, licensure fees are more often set at a level that the board perceives members will tolerate and, in the United States, that state legislatures will authorize. The regulatory authority must then tailor the range and nature of its work to an inadequate resource base.”***

Hence, resource constraints can have a double impact on the regulatory body – increased workload, as they process applications for those that are moving to or from

another jurisdiction, and, simultaneously, demands from government to reduce costs. The importance of fiscal autonomy should therefore not be underestimated if the regulatory body is to continue to discharge its responsibilities particularly when resources are constrained.

In addition to the acute economic pressures, brought about as a result of the 2008 crisis, market changes have, for some time, been driven by the realisation that health care is consuming too much of many nations' resources (Pew Health Professions Commission, 1995a). These market forces are shaping the structure of delivery systems that are seeking to limit costs by scope of practice changes for practitioners as well as the private/public mix of service provision (Pew Health Professions Commission, 1995b). Professions Australia (2005) when giving evidence to a government review of regulation noted:

*“Professionals are now operating in a more global market and we need to better understand Australians’ position in the global marketplace for skilled workers and the influences on professional mobility. What do new patterns of employment, new kinds of work organisation and new ideas about knowledge acquisition and learning mean for the attraction and retention of professionals in the future?”*

Regulators therefore need to be ahead of these changes and be in a position to ensure that evolving markets have access to appropriately educated and regulated practitioners.

### **Quality Improvement**

As populations have become better educated; as health systems have developed; as citizens have had easier access to information on treatment options; health systems and health professionals have increased their focus on quality improvement (Department of Health 2008; Department of Health, 2009; Association of Registered Nurses of Newfoundland and Labrador, 2010).

Several authors have identified that, as governments have increased their attention towards quality initiatives, the scope of the regulatory bodies relative to other quality systems have featured in these debates. Specifically, Benton (2011a) noted that as professional education has transferred to the higher education sector, mandatory university systems or voluntary academically focused accreditation systems have started to interact and in some cases compete with those of the regulatory body. Benton (2011a) also went on to highlight that employer systems can also directly impact on the ability of the nurse to meet professional standards and therefore the need for the regulator to focus not just on the individual but also the wider milieu in which they practice may be necessary. Indeed, in Canada, the Province of Ontario has been examining the need:

***“...to give health regulatory colleges new powers to conduct comprehensive inspections in settings that are currently unregulated, such as cosmetic surgery clinics. If passed the legislation would give regulatory bodies the right to directly observe a health professional’s practice and watch a procedure being performed.”***

*Association of Registered Nurses of Newfoundland and Labrador (2010)*

This increased interest and focus upon quality improvement has also resulted in increased scrutiny for existing regulatory systems. Apparent and actual failures, often drawn to the attention of government and society through media reporting, have raised questions over the abilities of both regulatory systems and those that operate them – for example:

***“High profile cases such as the Bristol Infirmary have fuelled the notion that registration boards are, in fact, unable to properly deal with professionals whose conduct or performance is sub-standard, and that boards are failing in their duty to protect the public.”***

*Carlton (2006)*

Indeed, Mastromatteo (2009) noted:

***“...external forces can readily exert pressures on regulatory organisations. In recent years, a pattern has developed where the media releases concerns about the effectiveness of a particular regulator, and the government makes changes or amends legislation to increase the accountability of the regulator.”***

Mastromatteo (2009) then went on to state that:

***“Our profession may be self-regulatory, but that does not make us completely autonomous. We are ultimately accountable to the government and, if we want to maintain our self-regulating status, it behooves us to seek out and adopt the best practices in professional regulation and to be at the leading edge in responding and adapting to changing circumstances. We can only achieve that by looking outside ourselves and being actively engaged with other regulators and with government. Navel-gazing and seeking all of our solutions within is a surefire formula for obsolescence.”***

The points made by the preceding authors on the subject of quality improvement highlights the need for regulatory bodies to be both externally and internally focused as well as being prepared to view and interact with other systems in a way that addresses concerns in a speedy, open, and transparent manner. Norman (2002) contends that increased lay member involvement both on governing bodies as well as through more

comprehensive and regular consultation may support achieving a more accountable, independent and higher performing regulatory body.

The Saskatchewan Registered Nurses' Association (2010) also identified that, in this era of increased interest in quality improvement, nurses – as well as the regulatory bodies that set the standards – need to be far better equipped with quality enhancement knowledge and skills to lead such initiatives.

### **Demographics and Changing Health Needs**

It is perhaps unsurprising that many of the papers on the regulatory landscape identify demography and changing health needs as important when considering how nurses should be regulated (Pew Health Professions Commission, 1995b; Professions Australia, 2005; Carlton, 2006; Benton and Morrison, 2009a; Association of Registered Nurses of Newfoundland and Labrador, 2010; Saskatchewan Registered Nurses' Association, 2010). Indeed in their analysis of issues impacting upon regulation Med–EmergInc (2005) stated:

*“The changing health care needs of populations should form the basis (although not the sole consideration) of all decisions and practices regarding health care provider education, certification, licensure and full scope of practice. Population health needs and evidence of outcomes must inform what providers do, and what providers are required to do must inform how they are educated and trained.”*

The changing age structure of many societies with far more very elderly and fewer children being born not only requires a shift in the focus of educational programmes but also raises the question of who will deliver care in the future if there are fewer people of working age to enter into the nursing profession at the very time when care needs are increasing (Benton and Morrison 2009a). As people age they often need a mixture of both health and social care and this requires regulators to think about how they can work across sectors and/or look at issues such as shared competence (Malvarez and Agudelo 2005).

Not only is the age structure of our societies changing but also the geographical distribution of populations. As nuclear and multiple partner families start to proliferate in many societies, the elderly are often left in rural areas where next generation practitioners may gain only limited experience and be less willing to work once qualified (WHO 2010b; Chhea, et al. 2010; Buchan et al, 2011). Added to this longer term population shift, more rapid mass movements can occur as the result of disaster or conflict resulting in significant re-distributions of individuals, families and populations often with significant acute and chronic health needs that can overwhelm local services and require fundamentally different competencies particularly relating to priority setting and ethical perspectives (ICN, 2009a).

Health tourism, a developing service in a number of countries, can also offer regulatory challenges both in terms of the preparation of local nurses to deliver the service but also when visiting experts require to practice in the facilities.

Just as the demographics of society are changing so too are the profiles of disease. Many conditions that were endemic in the past have all but disappeared whilst others such as the almost exponential increase in non-communicable diseases requires regulators to keep a careful watch on such trends if required competencies and programme content are to remain congruent with population needs (Association of Registered Nurses of Newfoundland and Labrador, 2010).

From time to time the very values of our societies shift and, as a result, may require regulators to carefully consider the implications for core guidance documents such as codes of practice. The emergence of discussion on topics such as abortion and euthanasia can leave practitioners with significant dilemmas to face if the regulator does not keep pace with these changes (van Bruchem-van de Scheur, et al. 2008).

All these demographic and societal changes are triggering health systems redesign, where the focus, delivery modalities and range of competencies required need to be reflected in the actions of the regulatory body. The Pew Health Professions Commission, (1995a) succinctly noted:

***“The system that is emerging will be integrated through delivery of primary care. This will mean that all health practitioners, generalists and specialists, must be able to understand the values and functions of coordinated, comprehensive, and continuous care and direct their practices to support such goals.”***

It is therefore appropriate to conclude and concur with the sentiments expressed by Med-EmergInc (2005) that demographics and changing health needs require to be carefully considered by regulators who wish to keep pace with the requirements of our health care systems and society.

### **Technology**

The Federation of State Medical Boards (2008) identified that rapid advances in technology and science are permanently changing the face of health care. In addition, a range of authors have identified that technology is having an impact on both regulation and the profession (Irvine, 1997; Pew Health Professions Commission 1995a–b; Federation of State Medical Boards, 2008; Benton and Morrison, 2009a; Saver, 2010; Benton, 2011). These changes are having a number of effects both on current requirements and future direction and can be considered under the three sub-themes:

- Information and Communications Technologies.

- Education Modalities.
- Treatment Modalities.

Developments in and increased access to information and communications technologies have resulted in rapid progress in the design and implementation of electronic patient records (Med–EmergInc, 2005). Not only does the development of such systems require regulatory bodies to examine the competencies required by practitioners to use them, but also there is a need to revisit and strengthen aspects of the code of conduct to reinforce issues relating to data confidentiality and ethical behaviours associated with such records that can now be accessed from multiple locations.

Associated with the issue of data access, confidentiality and ethical behaviours and linked to advancements in information technologies is the proliferation of social networking media where nurses have sometimes deliberately and sometimes inadvertently divulged information about their patients thereby breaching confidentiality. In addition, through social media such as Facebook or Twitter some nurses have entered into relationships with the patient that have then resulted in breeches of professional boundaries (Benton, 2011).

From a student nursing perspective the ready availability of material via the Internet has resulted in both the regulator and the educational institutions needing to develop and/or reinforce policies on plagiarism (Benton and Morrison, 2009a). Technology must therefore be viewed as an area where the regulator needs to be vigilant to new and developing challenges.

Just as the Internet has increased the amount of information available to professional staff it has also provided the same access to the public. However, questions on the accuracy of such information have been raised as well as the fact that a new dimension to poverty is emerging – those that have access to information and those that do not (Med–EmergInc, 2005). So information asymmetries, for certain segments of the population and the profession, are decreasing whereas for other groups the information gap is getting bigger than ever. Therefore, the ability of the public to judge the quality of a nurse's or other health professional's practice may be increasingly impaired for certain segments of society – often those who are already viewed to be the most vulnerable.

Technology can however be an asset for those regulators who utilise the Internet to increase access to the status of practitioners via publically available web-based databases. This can offer the public both a 'remote' and speedy means of checking that the person they are dealing with or who is providing their care has met the required standards of the regulatory body. These systems can also give instant access to essential documents that specify expected standards and the codes of practice for practitioners. The Association of Registered Nurses of Newfoundland and Labrador (2010) also noted that as well as publishing information on registrants for use by the public, web-based

technology can be used by nurses themselves to update their records and provide the information needed for re-licensure.

Educational modalities are also changing (Benton, et al.<sup>a</sup>, 2013). The Internet as a source of information has already been used to deliver parts of pre-registration programmes as well as in some cases entire post-basic education via distance learning that can often use either CD-ROM or web-based learning (American Association of Colleges of Nursing, 1999). This material can, in addition to the written word, integrate audio, picture or video content. In addition, in some countries, there is currently considerable debate about the degree to which patient simulations, often using sophisticated mannequins with inbuilt computer processors, can be used to augment or even in some cases replace aspects of clinical practice (Moule et al. 2006; Saver, 2010).

New technologies are inevitably impacting on the demand for and competencies needed by professionals. However these same technologies can also be used to monitor progress in achieving such competencies (Professions Australia, 2005). Saver (2010) identified:

***“...that technology will measure and maintain nurses’ competence through development of better scenarios for simulation.”***

and Pew Health Professions Commission (1995b) stated:

***“Emerging information technologies and the information super-highway offer States unprecedented opportunities to create innovative means of assessing both initial and continuing competence.”***

As yet, no regulator has identified how these measurement systems might feed into either formative or summative assessment of competence in either initial or post-registration programmes but this is certainly an opportunity that progressive regulators should explore if they are to exploit the potential of new technology. However, systems that provide a platform for computer based examination or marking are being explored by a number of jurisdictions.

Professions Australia (2005) identified that new technologies are increasingly facilitating professions to deliver services across extensive geographical areas. This may include the practitioners being located in one jurisdiction and delivering a service to a patient in another. This situation of trans-jurisdictional care delivery was one of the drivers for the National Council of State Boards of Nursing in the United States to develop their regulatory compact agreement (NCSBN, 2011a). The compact allows for a nurse registered in one jurisdiction to practice in another State that has signed up to the compact based on their original licence.



Benton (2011a) and Stacy and Menard (2006) have highlighted that new technology is playing an increasing role in ensuring that evidence based practice becomes the norm through using technology to augment decision making. These systems provide speedy access to the most up-to-date validated evidence associated with treatment options. However Benton (2011a) raised the issue of the need for regulators to engage with software vendors to ensure that the ethical and conduct implications, particularly relating to confidentiality and decision support tools are appropriately embedded as part of the treatment prescription and recording systems in a manner congruent with existing codes of conduct and standards of practice.

### Education and Competence

Med-EmergInc (2005) in their analysis of issues impacting on regulation noted:

***“During the last two or three decades, health professional education has been criticized for not being able to adjust quickly enough to change in health care delivery systems in ways that are responsive to people’s needs and expectations.”***

This is not surprising since the education service gap has been the focus for many papers. Fortunately, the findings from these studies are remarkably consistent by concluding there is a need for service and education to work more closely on the content of programmes and in offering high quality clinical experience as well as identifying the need for regulators to keep standards under regular review (McCaugherty, 1991; Pew Health Professions Commission, 1995a; ICN, 2009b; Odro et al., 2010). The changes and issues described in the previous sections on “*Demographics and Changing Health Needs*” and “*Technology*” have an impact on both the curriculum content and pedagogy. However, in addition to ensuring that those who are completing initial programmes are competent to practice, it is increasingly recognised that continuing competence needs to be addressed, for example, Casey (2008) noted:

***“In an era of rapid change, we can no longer assume that a professional continues to be competent simply because he or she once graduated from a recognized educational institution.”***

The National Council of State Boards of Nursing (2001) conducted research to explore the effectiveness of different approaches to the delivery and assessment of continuing competence. The assessment of competence is currently the focus of considerable debate by regulatory bodies (Australian Nursing and Midwifery Council, 2009). The impetus for much of this debate has been, as noted earlier, high profile cases where the competence and conduct of practitioners has been found wanting (Salter, 2004; National Consumer Council, 1999; Gladstone et al., 2000; Conference Board of Canada, 2007; Bartle and Vass, 2005).

Additionally, as health care delivery systems become more complex and patients' needs have changed, regulators have had to consider how shared competencies can be identified and team-based education developed, accredited, delivered and assessed often through the use of problem based team scenarios (Med–EmergInc., 2005).

### **Culture and Social Changes**

As noted in the sections on “Workforce” and “Demographic and Changing Health Needs” there has been increased movement of both professionals and patients as a result of improvements in mass transportation, the introduction of services such as health tourism and the increase in both bilateral and multilateral trade agreements. These changes require regulators to consider how the preparation of practitioners and their ongoing competence is sensitive to cultural needs of far more diverse populations. The report from the Pew Health Professions Commission (1995a) contained points that, although specific to the United States, are applicable to any country where diversity is a feature of the population namely:

***“Effective health care cannot come in a single form to fit the needs of everyone in a society as diverse as that in the U.S. To provide appropriate care, practitioners must be able to appreciate the growing diversity of the population and the needs to understand health status and health care through differing cultural values.”***

*Pew Health Professions Commission (1995a)*

Nurse migration also provides challenges for the regulator who needs to develop relationships with regulatory entities in other jurisdictions so they can exchange information in a timely manner but also may share best practices thereby developing new insights that will allow regulators to tackle problems from differing perspectives (Benton, 2011).

In addition to cultural change the literature on regulatory trends also contains many references to the impact of wider changes in societal values. Benton (2011a) and Med–EmergInc. (2005) both noted that the changing composition of the nursing workforce away from a predominantly female dominated profession to one with higher percentages of males and increased numbers of mature entry students of both genders who already have significant life experience is having an impact on the way that nurses need to be prepared. Professions Australia (2005) highlighted the impact that these changes can have both on work/life balance but also the nature of careers when they observed that:

***“Changing attitudes to work/life balance (as for generation X and Y), coupled with an increase in the numbers of women entering many professions is influencing the available supply of professional skills. More professionals are choosing to change career, to work for multiple employers or are demanding a more flexible approach to work on a contract or part-time basis.”***

*Professions Australia (2005)*

Casey (2008) has also documented a number of societal changes that are having an effect of the day-to-day operation of regulatory bodies. In particular, the increased demand over the past few decades by governments and the public for greater transparency, fairness and proactivity in their core work. Failure to address this matter has resulted, according to Klein (1998) and Mastromatteo (2009), in an erosion of trust in the health professions and those that regulate them. Therefore, the need to engage government, patients and other key stakeholders in the activities of regulators is seen as a pressing matter to be addressed (Pew Health Professions Commission, 1995b; Norman, 2002; Surdyk et al., 2003; College of Nurses of Ontario, 2006).

### **Communication**

It is widely recognised that regulatory bodies are working within an increasingly complex global environment (Casey, 2008). Accordingly, not only must they ensure that communication with their registrants and country based stakeholders is proactive and effective but increasingly there is a need to reach out to regulators in other jurisdictions so as to develop a shared understanding of issues whilst respecting the fact that the way that these issues may be addressed may differ from one country/jurisdiction to the next (Norman, 2002; Benton, 2011).

As noted in the preceding section on *“Culture and Social Changes”* there is an increased expectation that regulators will be more transparent and proactive. For communication to be credible and comprehensible, clarity over the use of terms is important. Lack of clarity has been identified by a number of researchers as being problematic (Pew Health Professions Commission, 1995b; Benton and Morrison, 2009b). The International Council of Nurses has sought to address this problem by developing a lexicon of terms where definitions are given and, where differences exist in usage across jurisdictions, these are highlighted (ICN, 2005). Not only does clarity of terms facilitate dialogue between jurisdictions and disciplines but it can also assist in empowering the public to actively participate in shaping regulatory policy and processes (Pew Health Professions Commission 1995a, b; Casey, 2008; Benton and Morrison 2009a). Additionally, with increased mobility, such lexicons can help regulators transparently and consistently reach decisions on applications by registrants for recognition in another jurisdiction.

### **Interrelated Sub-systems**

Whilst the preceding discussion could best be described as looking at the external environment and considering the macro level factors that are impacting upon regulation, this section examines the meso level where different systems and actors interact and respond to resolve or address the impact of factors in the external macro environment.

In examining the literature in the previous section related to the concept of *“Open to Environment”* a number of references has been made to the need for different stakeholders

to work together or for different functions to work in a synergistic manner. Based upon systematic scrutiny of the literature relationships between sub-systems can be described under a number of themes:

- Clinical Teams;
- Educational Systems;
- Service Links
- Regulators, Legislation and Regulatory Functions

Before reviewing these themes it is important to note that in general terms the literature indicates that the relationships between the various elements are complex and dynamic (Med–EmergInc., 2005; Pew Health Professions Commission 1995a) and can face a certain degree of inertia or even opposition as noted by Pew Health Professions Commission 1995a:

*“The difficulty of changing the established patterns of professional education and practice should not be underestimated. Though strong forces encourage change, there is nonetheless a complex system of public and private interest, professional and governmental policies and institutional independence characteristic of the entire system. Much of this operates at odds with other parts of the system.”*

### **Clinical Teams**

Pew Health Professions Commission (1995a), Surdyk et al. (2003), Med–EmergInc. (2005), the Federation of State Medical Boards (2008) and Frenk et al (2010) point to the importance of teamwork and the associated need to re-orientate education programmes towards a primary care led approach emphasising health promotion, disease prevention and community based delivery of care. They also stress that to obtain better patient outcomes more effective and efficient ways of working must be found.

### **Education Systems**

To facilitate effective clinical teams both “*Educational Systems*” and “*Service Links*” need to be addressed (Benton and Morrison 2009a). The College of Nurses of Ontario (2006) identifies that making changes to existing programmes requires careful consideration of the implications in terms of teaching and learning resources, faculty numbers and competence, clinical placements and supervision. Professions Australia (2005) noted that such change, if it is to be successful, results in the development of a co-dependent relationship between education and service.

### Service Links

Benton and Morrison (2009a) highlight the interdependence between service and education when they note that:

*“...economic pressures can lead to excessive workloads, inadequate supervision, lack of supplies and other resources. These can place the patient at risk and place nurses in situations where their ability to deliver care in accordance with their scope of practice and code of conduct may be compromised.”*

Also, the Federation of State Medical Boards (2008) noted that, as health care becomes more complex, effective practice requires collaboration across health disciplines as well as ensuring access to relevant specialist facilities and services. However, Irvine (1997) notes that under such circumstances, self-regulation, as exercised by the individual practitioners, is critically important if patients are to remain safe through the creative application of permissive scopes of practice. Norman (2002) integrated all these aspects when she observed:

*“In terms of the attitudes and behaviours of healthcare professionals and their fitness to practise, the regulator is fairly and squarely accountable. But, given the influence of the NHS as employer and provider of clinical training, and funding for education, the issues of fitness for practice, fitness for purpose and fitness for award are difficult to divide. These must surely be seen as a great collaboration between government health departments, employers – NHS and independent sector – the regulators and the universities, if we are going to get the product (newly qualified nurse) right.”*

*Norman (2002)*

### Regulators, Legislation and Regulatory Functions

Migration of nurses is a common phenomenon and places considerable pressure on the regulatory bodies in both source and destination countries/jurisdictions, (Kingma, 2006). Receiving countries need to contact source countries to obtain evidence of the registration status of the migrant nurse as well as validated transcripts of their programme of study. Regulatory bodies may have difficulties in knowing who to contact (Benton and Morrison 2009b). Even if the receiving body knows who to contact they may have difficulty in interpreting whether the required standards have been met as a lack of consistency of approaches can cause confusion (Carlton, 2006). Where mutual recognition agreements between jurisdictions are in place then recurrent contact between the sending and receiving body is more likely (Association of Registered Nurses of Newfoundland and Labrador, 2010). It is therefore evident that, with increasing and more complex migratory flows, jurisdiction based nurse regulatory systems are part of a more complex and dynamic global regulatory network.

As scopes of practice change; where health professions are regulated through individual legislative laws; where nurses are being given the authority to prescribe; where laws governing the educational institutions that teach nursing programmes are separate from the nursing act; then coordination of laws across different disciplines and sectors is important if inconsistencies and unintended conflicts of approach are to be avoided and overlaps and inefficiencies reduced. Casey (2006) highlighted the need for coordination and collaboration when he noted:

*“...to reduce duplication of effort in regulatory and accreditation functions, state and territory registration boards for each of the registered health professions have worked together to establish cooperative national structures.”*

However, Mastromatteo (2009) cautioned that such collaboration should not undermine patient safety. So whether looking at the functioning of teams, the delivery of health services and associated educational systems or the various regulatory and legislative arrangements, the dynamics of interrelated sub-systems have both risks and benefits that need to be fully explored and understood if optimum functioning of the various systems is to be achieved and patient protection assured.

### **Input–Transformation–Output Processes**

If regulatory bodies are to keep pace with the changing external environment then the detailed internal processes and functioning of those bodies will also need to change. Examination of the literature supports this assertion particularly in relation to: code of conduct, scope of practice, curriculum updating, entry requirements, continuing competence and faculty competence.

#### **Code of Conduct**

With advances in technology, increases in the information available on various interventions and as the attitudes and values of society change, regulators have to examine the ethical basis upon which the profession rests and reflect this through updating codes of conduct (College of Nurses of Ontario, 2006). Importantly the code of conduct is the benchmark against which the performance of the individual nurse is judged. Through increased transparency of complaints systems, including the wider use of social media and increased web techniques to raise awareness, the numbers of complaints received regarding nurses have increased which has presented problems for the regulator in terms of dealing with these complaints in a timely, efficient and effective manner (Ford, 2011).

The increase in demand to investigate complaints has presented regulatory bodies with significant challenges particularly for those that are facing decreasing budgets which can result in delays in investigation leading to increased public criticism on how the

regulator is performing on their core conduct function (Pew Health Professions Commission, 1995b). The College of Nurses of Ontario (2006) highlighted that there is a potential problem with existing systems in that complainants are protected through 'absolute privilege' meaning that – even if their complaint was vexatious or an abuse of process – under current law regulators must examine such complaints to a certain degree before considering dismissing them. When this legal principle was examined in the Ontario courts they concluded that if complainants could be sued just for making a complaint, many people would be reluctant to make complaints and accordingly the current system should prevail so as to avoid discouraging people from coming forward with legitimate concerns.

### Scope of Practice

As health needs change, technology advances and the ways that health systems are structured adapt to modern demands and financial realities, considerable pressures are placed upon nurses to work differently and to take on new responsibilities through expanding or extending their practice (Pew Health Professions Commission, 1995a, b; Med–EmergInc, 2005; Saskatchewan Registered Nurses' Association, 2005, & 2010).

These changes are fraught with challenges since scopes of practice are often embedded in legislation and take considerable time to change. Professions are often accused of being unresponsive, when in reality it is governments that cannot find sufficient legislative time to amend the restrictive legislation (Benton, 2007a). Added to this 'legislative delay', further delays can be caused by tensions between different professional groups where one group, such as the medical profession, does not want another group, such as nurses, to have the rights to provide a service that was previously the exclusive domain of the physician – such as in the case of prescribing (Abood and Mittelstadt, 1998; Fairman, et al. 2011).

To circumvent these delays governments have responded, despite the lack of any supporting evidence, by creating new health professions regulatory models with broad, nonexclusive, scopes of practice provisions which reserve only those acts which present a significant risk of harm (Med–EmergInc, 2005). This approach, along with the increasing tendency for different disciplines to work in collaborative teams, presents the courts with challenges since under the law of torts the focus is upon individual performance not team work and acts that were previously performed by one group of professionals such as doctors are used as the benchmark against which what is deemed reasonable or normal practice is judged (Med–EmergInc, 2005).

On occasions these barriers are more attitudinal than actual and in a publication produced by the Department of Health for England and the Royal College of Nursing (2003) entitled 'Freedom to Practise: Dispelling the Myths' a number of apparent regulatory and other barriers were challenged and solutions that had been found in one place were promoted for adoption system-wide.



Although completed quite some time ago the extensive work on ‘Critical challenges: Revitalising the health professions for the twenty first century’ concluded:

***“Current practice acts do not readily recognize the possibility of overlapping scopes of practice based on demonstrated competency. While the past several years have seen tremendous expansion of scopes of practice for some practitioners, these advances have been hard won and continue to be fought every day at great expense because of the ‘turf battles’ that arise when one profession attempts to expand its scope of practice. The need for accessible health care calls for flexible scopes of practice which recognizes that different types of competent practitioners may provide the same health services.”***

Pew (1995a)

More than 15 years after this report was written, the situation is, in many parts of the world, similar today. Attempts to address this problem are emerging and in the subsequent section on “*Regulatory Body Governance*” the use of ‘Umbrella Regulation’ and ‘Prescribed or Reserved Acts’ will be explored. It is certainly the case as stated in a subsequent publication by the Pew Health Professions Commission 1995b that:

***“For scope of practice to effectively protect the public’s health, legislators who craft them must balance the competing interests of quality, cost and access.”***

To this point the author of this study would add that the implementation of agreed scopes of practice are equally important, hence the need for facilitative and empowering interpretation of legislation and provision of permissive guidance by regulatory bodies. Alongside this, the timely attainment of the responsibilities of educators to equip nurses with the foundational competence for safe and effective practice and the fulfilment of the duties of employers to create positive practice environments where the registrant can function to their full scope is essential. These are challenges that will require coordinated action if the quality, cost and access problems facing many health systems are to be resolved.

### **Curriculum Updating**

The changing needs of society and the shifting boundaries of scope of practice are resulting in regulators needing to revise curriculum content guidance so as to align it with the required competence for contemporary registered nursing practice. In addition, Pew (1995b) noted that:

***“Accreditation standards and processes also have been criticized for not keeping up with advances in professional knowledge and health care technology – thereby limiting innovation and perpetuating stagnant curricula.”***



It is therefore essential that the various parts of the education, service and regulatory systems work together to deliver the desired outcomes.

### **Entry Requirements**

This section will not examine in detail the existing approach to entry-level requirements; this is addressed later in the thesis. Instead, this section looks at some of the global changes that are impacting on or will impact on the way that regulators will need to modify their existing input-transformation-output processes.

There is now a consistent evidential base that points to a need to increase the level of initial nurse preparation to baccalaureate level (McGillis-Hall, 1998; Buerhaus and Needleman, 2000; Aiken, et al., 2001). Reports such as the recent United States based Institute of Medicine (2010) report on the Future of Nursing along with the Prime Minister's Commission on Nursing in England (2010) have both recommended the baccalaureate as the entry level qualification to practice nursing. However, Benton (2011b) was critical of both these reports as they failed to acknowledge the changing demographic structure of society which is resulting in a marked reduction in the population support ratio (PSR). Over the next four decades, this reduction in the PSR will raise questions as to whether this enhanced standard can be maintained without further consideration of skill mix, scopes of practice and other changes. The reduction in the PSR means that, in coming years, there will be fewer candidates to enter the profession at a time when there will also be increasing demands for care and reduced funding available. Regulatory bodies, governments, the profession and society will therefore need to re-examine how this enhanced level may be maintained. This may be as a result of increasing retirement ages, diversifying student intakes, providing articulated and cumulative programmes of educational qualification, through prioritisation of services offered or a mixture of all of these.

Whilst there is convergence towards baccalaureate preparation in many countries/ jurisdiction there remains considerable variation (Pew, 1995a). This variation provides considerable challenges to regulators who are often asked to recognise qualification of differing academic levels with varying content obtained elsewhere and calibrating these to local requirements and standards can be labour intensive.

### **Continuing Competence**

As previously mentioned, continuing competence has been the focus of significant attention as a result of a number of high profile cases where registrant's practise has been found to fall far short of the required and expected standards. The Federation of State Medical Boards (2006), through a survey in relation to medical practitioners, and Benton and Morrison (2009b), through analysis of legislation in relation to nurses, identified that increasing numbers of regulatory bodies examine and make attempts to ensure competence at the point of initial registration. However, there remains substantial variation in what authorities do to monitor and secure competence during licence renewal.

Med-EmergInc (2005), Pew (1995a) and Saver (2010) have all noted that there is considerable debate and only limited evidence as to which approach should be taken to ensuring on-going competence. Attendance at approved continuing education events, completions of a minimum number of practice hours, peer feedback, self-certification of being 'fit to practice' along with the use of simulations and consideration of re-testing have all been considered (Canadian Nurses Association, 2000).

Pew (1995a) noted that whilst most regulatory bodies

***"....do not demand any demonstration of continuing competence. Continuing education requirements, however laudable, do not demand demonstration that a licensed professional is still competent to perform everything in his or her scope of practice anytime after initial licensing."***

This lack of requirement coupled with the weakness of the evidence on effective approaches to securing ongoing competence could be the reason that:

***"Nurses report weak employer support for professional development. Fewer than half can get time off for professional development, while only a quarter can get financial assistance."***

*Saskatchewan Registered  
Nurses' Association (2005)*

With increasing numbers of governments demanding that regulatory bodies address the issue of continuing competence in a manner that is effective and efficient and fundamentally improves public protection, it is clear that regulators, employer and the education sector all have a role to play (Surdyl, et al. 2003).

### **Faculty Competence**

A number of authors have identified the central role that sufficient numbers of well-prepared and motivated faculty play in the development of competent practitioners (Med-EmergInc, 2005; Saver, 2010; and Affara, 2010).

Since the turn of the 21<sup>st</sup> century there has been a developing awareness of an increasing shortage of well-prepared faculty (Benton, et al<sup>a</sup>., in press). The American Association of Colleges of Nursing (2005) and the National League for Nursing (2006) have both made repeated comments on the situation and, along with organisations such as the Canadian Nurses Association in collaboration with the Canadian Association of Schools of Nursing (2008), have sought to quantify the magnitude of the problem.

Saver (2010) highlighted that this shortage was leading to some very worrying trends where:

*“Some States are under pressure to lower faculty standards in response to the faculty shortage, but most educationalists and regulators contend that this is not the answer since lowering standards may give you more faculty and more nurses in practice, but not necessarily competent nurses.”*

The other factor directly linked to the issue of sufficient numbers of faculty is the recognition and reward system of universities. Med–EmergInc (2005) and Benton and Morrison (2009a) identified that, since nurse education has moved into the higher education sector, increasing pressures have been placed on faculty to pursue research and publication as the university reward and recognition systems place high value on excellence in these areas ahead of teaching, clinical practice, supervision, mentoring of students and management of departments and programmes. So, for those faculty working within the nursing department, additional pressures and workloads exist which have been viewed by some researchers as one of the factors contributing to the faculty shortage (Canadian Nurses Association in collaboration with the Canadian Association of Schools of Nursing, 2008).

### **Teleology or Purpose**

Examination of the literature on the changing regulatory landscape focusing on teleology or purpose is clustered into two areas:

- Protecting the Public; and
- Promoting the Profession.

The presence of these clusters is not surprising as they replicate the focus of the underpinning conceptual model of regulation that will be addressed in a subsequent section. Nevertheless, the literature reported in this section concentrates on the wider issues relating to the changing regulatory landscape.

#### **Protecting the Public**

Public trust in the ability of regulatory bodies to protect recipients of care has been damaged as a result of high profile failures and it has been identified that these bodies need to take concerted action to regain and/or maintain public confidence (Allsop, 2006).

In addition to the issue of trust Carlton (2006) highlighted the increasing complexity and overlapping requirements demanded of the regulator when he noted:

***“A less fragmented and better coordinated registration system is expected to provide the levers required to improve workforce deployment, generate efficiencies and promote consumer protection.”***

So whilst there is still general consensus as stated by Jones–Schnek and Yoder–Wise (2002) that:

***“Society grants the profession authority over functions vital to itself and permits them considerable autonomy in the conduct of their affairs. In return the professions are expected to act responsibly, always mindful of the public trust. Self-regulation to assure quality in performance is at the heart of this relationship. It is the authentic hallmark of a mature profession.”***

The need to maintain trust and address overlapping demands is clearly important both in terms of public safety and in relation to the status of the profession. Indeed, Saver (2010) is particularly forceful in this regard by unequivocally stating, ***“Regulation needs to reflect the needs of society not the profession.”*** Saver (2010) then goes on to remind readers that ***“if nursing truly serves society”*** then the regulatory stance must support those actions focused on public protection.

### **Promoting the Profession**

Some authors have suggested that failure of regulatory bodies to deal effectively with high profile cases can be considered evidence for promoting the view that:

***“It is no longer a self-evident truth to those outside of the profession that self-regulation of the professions is in the public interest.”***

Casey (2008)

Additionally, in those countries where there is a need to recruit internationally educated nurses, lengthy delays and the high costs of the procedures to be followed by the applicant are viewed by some governments as further evidence of the regulator being over-cautious regarding public safety and simultaneously being protectionist towards home educated nurses (Association of Registered Nurses of Newfoundland and Labrador, 2010). These delays have said to be one of the driving factors for the rationalisation of regulatory systems such as the move from a state based register to a federal system in Australia (Professions Australia, 2005).

There are clearly both opportunities and threats when seeking to strike the right balance between public protection and professional development. Saver (2010) summed this up well when reporting an interview with Buerhaus who stated:

*“I want to be convinced that regulations are well designed and will do what they are supposed to do, with minimal unintended consequences – regulations should not impair innovation and competition.”*

## Feedback

The Oxford English Dictionary (2010) describes feedback as:

*“The modification, adjustment, or control of a process or system (as a social situation or a biological mechanism) by a result or effect of the process, especially by a difference between a desired and an actual result; information about the result of a process, experiment, etc.; a response.”*

Examination of the literature relating to professional regulation highlights multiple examples of the use of feedback and this tends to fall into two specific categories:

- Feedback relating to individual practitioner performance; and
- Feedback relating to organisational performance.

It is however difficult to neatly separate the two since feedback on an organisational process may concomitantly have an impact at the individual level and vice versa.

### Individual Performance

With the declared purpose of protecting the public from the action of poorly performing and/or prepared practitioners it is perhaps unsurprising that much of the feedback examples at individual practitioner level focus on issues of complaint and/or competence.

Some of the feedback mechanisms falls into the category of routine or regular action – requiring the registrant to re-licence, paying the necessary fee and making the requested declaration of completion of continuing education, delivery of the mandated hours of practice and attestation of their ongoing fitness to practice. A percentage of this data is then audited and where problems are identified corrective action taken with the individual registrant.

Other feedback mechanisms are best described as responsive to initiating events. Initiating events can be a complaint from the public, colleagues or employers or as a result of notification by the justice system that the registrant has been found guilty of a crime. Initial consideration of the presented evidence or allegation is made by the

regulator and, should this examination show that there is an initial case to answer, further investigation with subsequent scrutiny processes and judgment follows. Allegations may relate to health, conduct or competence.

Benton and Morrison (2009a) have highlighted that as regulatory systems become more sophisticated the range of options available to deal with poorly performing or badly behaving registrants increases – in short, in the past the feedback mechanism was very crude. It either removed the person from the register as a means of protecting the public or let them continue practicing as if no concerns had been raised. Today, however, restrictions or conditions may be placed on a registrant's licence – for example, only being able to practice in certain settings or/and a requirement to complete a period of further education or/and a period of supervised practice. Having completed the sanctions, the individual is reassessed and, if all is well, returned to the register with their licence fully restored.

### **Organisational Performance**

Feedback on organisational performance can address a diverse range of topics and this can be initiated, developed and addressed by the regulator themselves or as a result of external review (Pew, 1995b). The Association of Registered Nurses of Newfoundland and Labrador (2010) identified that:

***“In the UK, the Council for Health Care Regulatory Excellence (an external oversight body) conducted a performance review of Nursing and Midwifery Council (NMC) and found serious concerns about the inadequate operation of the NMC's fitness to practice processes, governance framework and lack of strategic leadership. The report made recommendations to the NMC and Department of Health to address the identified problems.”***

As can be seen by the above quote the review and resulting feedback covered both operation and strategic responsibilities.

Pew (1995b) suggested that there is a range of areas that need to be examined when assessing the performance of regulators – organisation and administrative affairs, licensing, discipline, education, communication, information, and legislative and policy activities. Several authors have focused on the need to address organisational performance issues relating to dealing with complaints and discipline matters. Failure to deal with complaints or address discipline issues in a timely manner places the public at risk if incompetent practitioners continue to practice and run the risk of contributing to the erosion of trust in the regulatory body (Pew, 1995b; Association of Registered Nurses of Newfoundland and Labrador, 2010). Additionally, having a complaint outstanding against a registrant can be detrimental to the nurse who is likely to experience stress due to the delay and uncertainty (Pew, 195b).

## Homeostasis

The review of literature relating to the changing regulatory landscape has identified a number of examples of homeostasis. These examples tend to have three component parts:

- The identification of a **trend or stimulus**;
- Clear statement of the **desired future state**; and
- An **innovative** and/or **proactive response**.

Considering the origins of the “Open Systems Framework” it is perhaps not surprising that, in terms of the examples identified relating to homeostasis, we see “stimulus” – “target” – “response” triplets. For example, Professions Australia (2005) identified that:

*“Better workforce data (Trend – Stimulus) needs to be supported by more comprehensive and higher quality research into skills formation issues (Innovative/Proactive – Response) to better understand the economic and social issues impacting on health.” (Desired Future State)*

Another example comes from Irvine (1997) who stated:

*“Without effective coordination, however, it is difficult to see the whole picture, how one part of the system relates to another, and whether the system as a whole works well. (Trend – Stimulus) The best results will surely be achieved by setting individuality, with its evident strengths, within a framework of agreed goals and coordinated partnerships, both locally and nationally. (Innovative/Proactive – Response) Then each partner will maintain a sense of ownership and achievement while contributing to the common purpose”. (Desired Future State).*

There are many examples available. Benton (2011a) focuses on dealing with high-risk events and educational franchising. The Federation of State Medical Boards (2006) provided a comprehensive examination of how digital imaging and data base technology can contribute to the provision of public information as well as assisting in the processing and administration of registrant’s records to facilitate licence portability. Approaches to maintaining professional autonomy through the use of peer-review approaches was the focus of work by Horsley and Thomas (2003) and Irvine (1997). All these examples demonstrate the utility of the open systems model in critical analysis trends and issues and indeed the identification of this sub-component structure may further assist in future analysis of the frequency and relationship of homeostasis to the other dimension’ of the open systems framework.

**Equifinality**

It would appear that equifinality is featuring more prominently and is increasing in importance as the regulatory landscape becomes more complex and dynamic. In the past, when regulators were the only mechanism to protect the public; when students nurses were predominantly female school leavers; and there were few nursing workforce shortages; then regulatory systems tended to be linear and isolated (Allsop, et al., 2004; Allsop and Jones, 2006; Benton and Morrison, 2009a)

The Peach Commission (United Kingdom Central Council, 1999) introduced in the United Kingdom the concept of stepping on and stepping off points where students could undertake the first year of an RN programme then step off and find employment in the workforce with a recognised qualification as a support worker. Alternatively, a student can pursue a support worker qualification and later enter the second year of RN education (UKCC , 1999).

In many countries the level of academic preparation can vary yet the licence to practice examination is set at the same level. For example, in the United States, nurses who have completed a:

- two year associate degree programme;
- three year diploma;
- three or four year baccalaureate; and
- those who have entered nursing with an existing degree in a related discipline and then exit with a masters qualification

All sit the same NCLEX exam upon which States then base there licensing decisions. The situation is not unique to the United States as many countries often have diploma prepared or graduate prepared nurses entering onto the same register.

The Association of Registered Nurses of Newfoundland and Labrador (2010) identified that student nurse profiles are becoming increasingly diverse with classes often containing programme participants who span four generations. This, the Association contends, not only presents significant challenges and opportunities for those involved in the registration and education processes but also the added complexity that it brings to health human resource planning.

Internationally educated nurses and their movement from one jurisdiction to another is yet a further example of how sufficient numbers of nurses can be found to meet population health needs (Casey, 2008; Association of Registered Nurses of Newfoundland and Labrador, 2010).



Another area where different solutions are being found relates to the increase in the number of complaints being received by regulatory bodies, some of whom are now starting to look for alternative means of dealing with such issues. Where complaints are judged to be of a less serious nature some regulators are turning to negotiated dispute resolution rather than taking registrants through the more formal, lengthy and costly complaints procedures (Pew, 1995b).

The concept of equifinality does not simply apply at the level of the individual practitioner but also in relation to governance and legislative issues as well. Carlton (2006) clearly demonstrated the presence of equifinality when noting:

*“Legislative mapping exercises conducted from time to time have identified significant variability across jurisdictions in the form and content of registration Acts, including, but not limited to the categories of registration that apply and the terminology used to describe these, the registration application and renewal requirements and processes, as well as differences in how complaints of professional conduct are investigated and prosecuted and the sanctions imposed.”*

So whether looking at individual practitioners or governance and legislation, a range of approaches is being used to achieve the same end result. However, perhaps as a result of the lack of dialogue, other than on operational matters such as recognition of a registrant's qualifications from one jurisdiction to another, there is as yet few examples of where jurisdictions are seeking to compare and contrast the various approaches that are being used across the full range of their responsibilities. This is unfortunate since lack of such scrutiny may lead to needless reinvention of already identified approaches or the application of sub-optimum solutions. The need to recognise, document and evaluate the differing approaches should be considered as a topic for further research. A useful starting point for such further inquiry would be the work on best practices documented by Benton and Morrison (2009b) in their publication on the *Role and Identity of the Regulator*.

### **Composite Overview of Open Systems Approach to a Changing Regulatory Landscape**

The preceding sections examining the changing regulatory landscape have not only identified a wide range of issues, trends and factors impacting on regulation at this time but has also demonstrated that there is already a wide range of diverse solutions available. The fact that the writing on this topic comes from a variety of (mainly high income) countries, differing legal and cultural traditions and both operation and strategic perspectives adds to the richness and diversity of the material to be considered but also points towards some of the gaps – lack of material from low income countries and from regions of the world such as Asia, Africa, former Soviet Union and Central and Latin America.

Whilst some of the routine horizon-scanning activity published by nurse regulators is starting to look at international developments and perspectives, the majority of such work comes from the United States and Canada and tends to focus on predominantly local jurisdictional or country based issues.

From the perspective of research rigour, consideration of the published and grey literature has failed to identify the use of a consistent organising analytical framework for the critique of factors impacting on the regulatory landscape.

This review has however demonstrated that the open systems framework along with the seven key components proposed by Kast and Rosenzweig (1972) can be successfully applied to the systematic examination of the literature (Figure 2).

In addition, Figure 3 provides a high level summary of the emergent issues impacting on the changing regulatory landscape organised along the seven key component as described by Kast and Rosenzweig (1972) and could offer a useful benchmark for comparison with future trends.

The focus of this thesis is not to explore the interactions of the various components although this could be a topic worthy of further study. Consideration of the literature has revealed that some of the material identified, as part of the elements described under “Open to the Environment”, also appear under “Inter-related Sub-Systems” and “Input-Transformation-Output Processes”. For illustrative purposes, Tables 2 and 3 summarise in some detail the areas of workforce and technology. These summaries are then followed by Tables 4 and 5 that highlight in less detail the other remaining factors noted under the key component “Open to the Environment”.

The material presented in this section along with mind-map and associated tables will be further explored when the results of this study are being analysed and discussed later in the thesis.

## **CONCEPTUAL FRAMEWORK**

The literature on nurse regulation (Figure 4) can be viewed as a partial subset of the literature covering health professional regulation, which in turn relates to wider material on professional regulation – a further partial subset of occupational regulation. Hence when considering nurse regulation, although specific nurse-focused empirical content is limited, there is potentially a rich literature to explore and to compare and contrast. Indeed, this layering and overlapping of the topic does not stop there since occupational regulation sits within a wider universe of regulation per se. Hence, and as noted previously, although there is a limited empirical literature relating to nurse regulation it is possible, with careful interpretation, to draw upon wider writings on the topic.

Figure 2: Schematic representation of application of open systems framework to the changing regulatory landscape

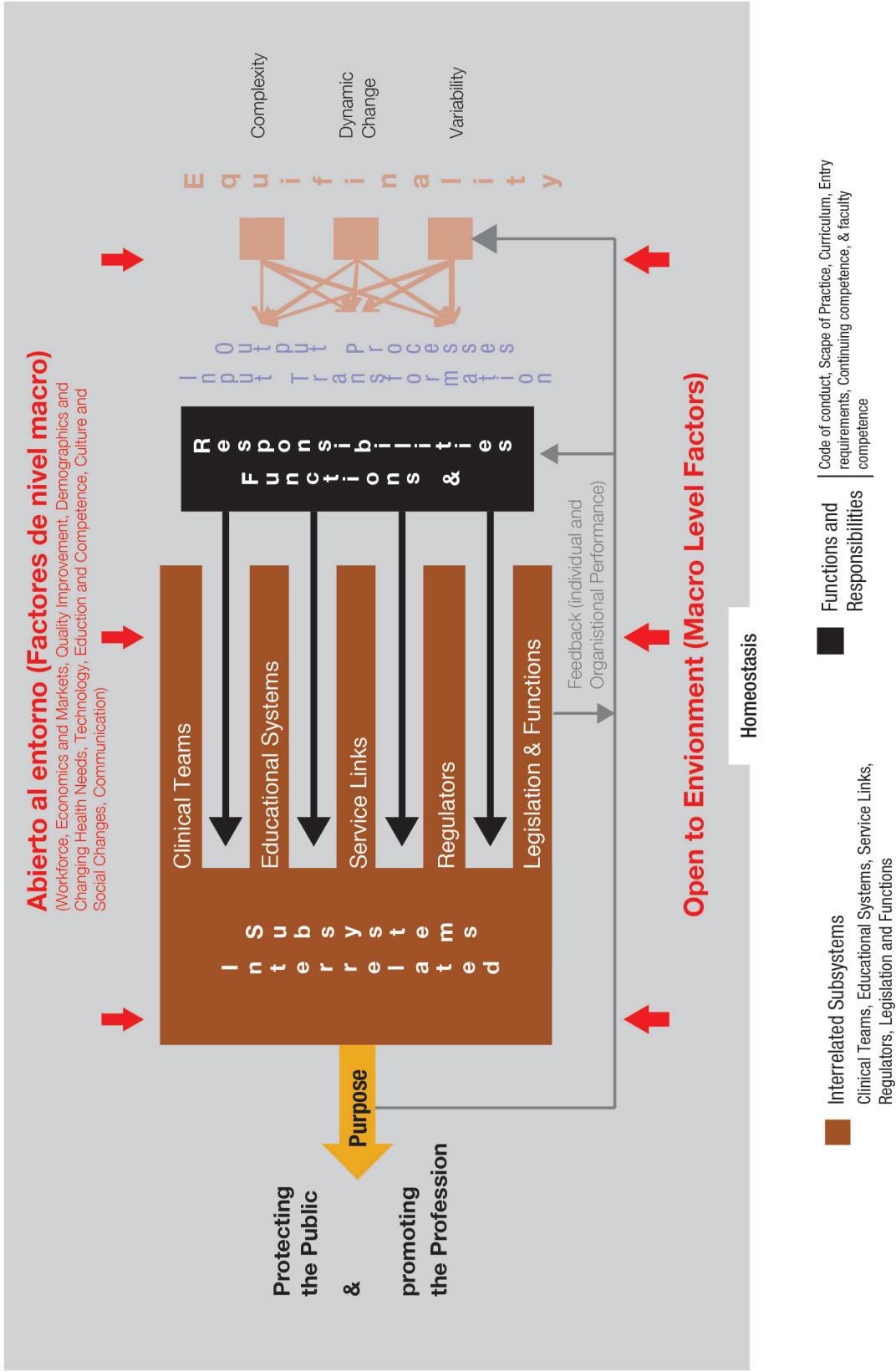
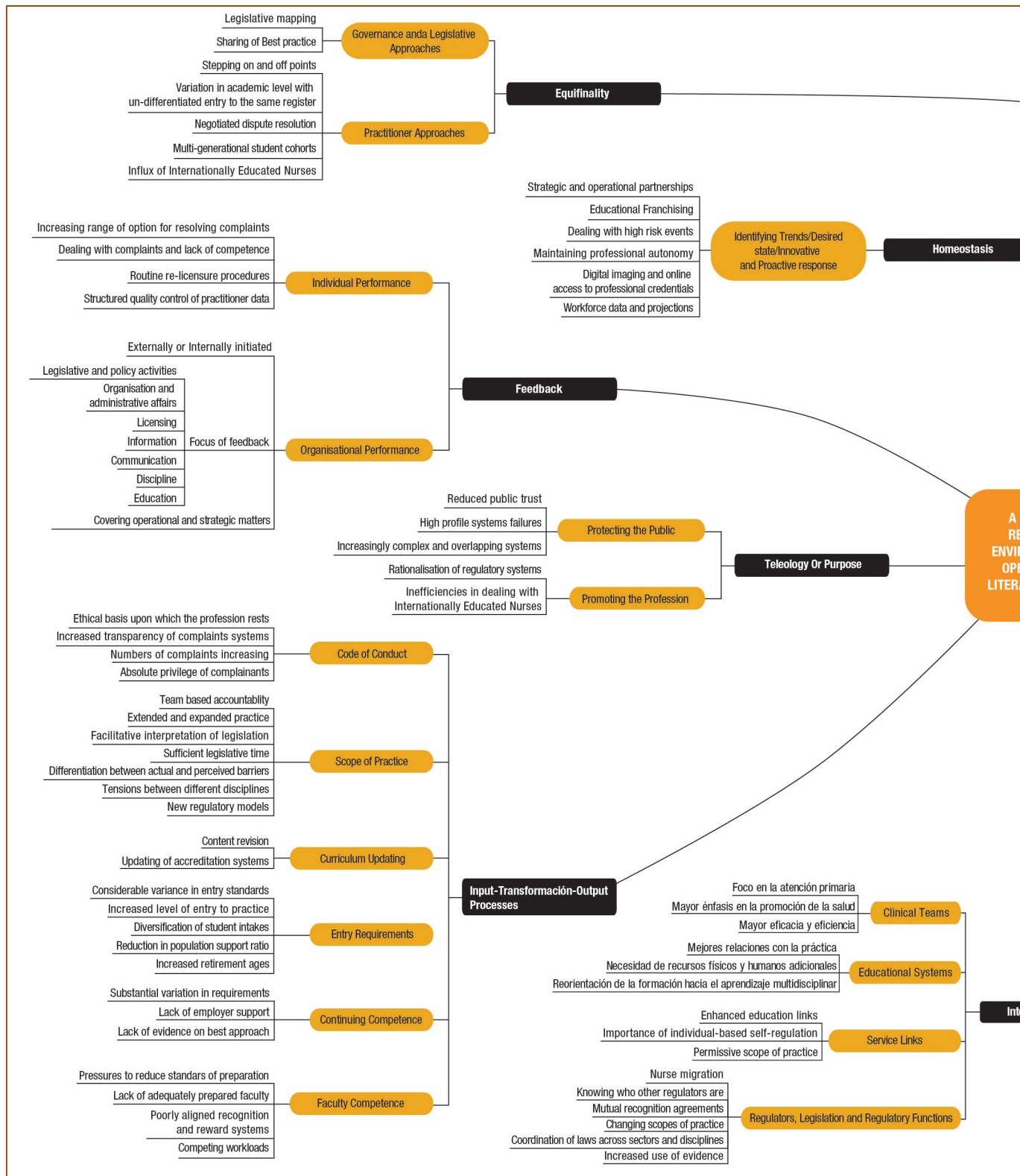


Figure 3: Mind-map of application of open systems approach



## Access to the literature on the changing regulatory landscape

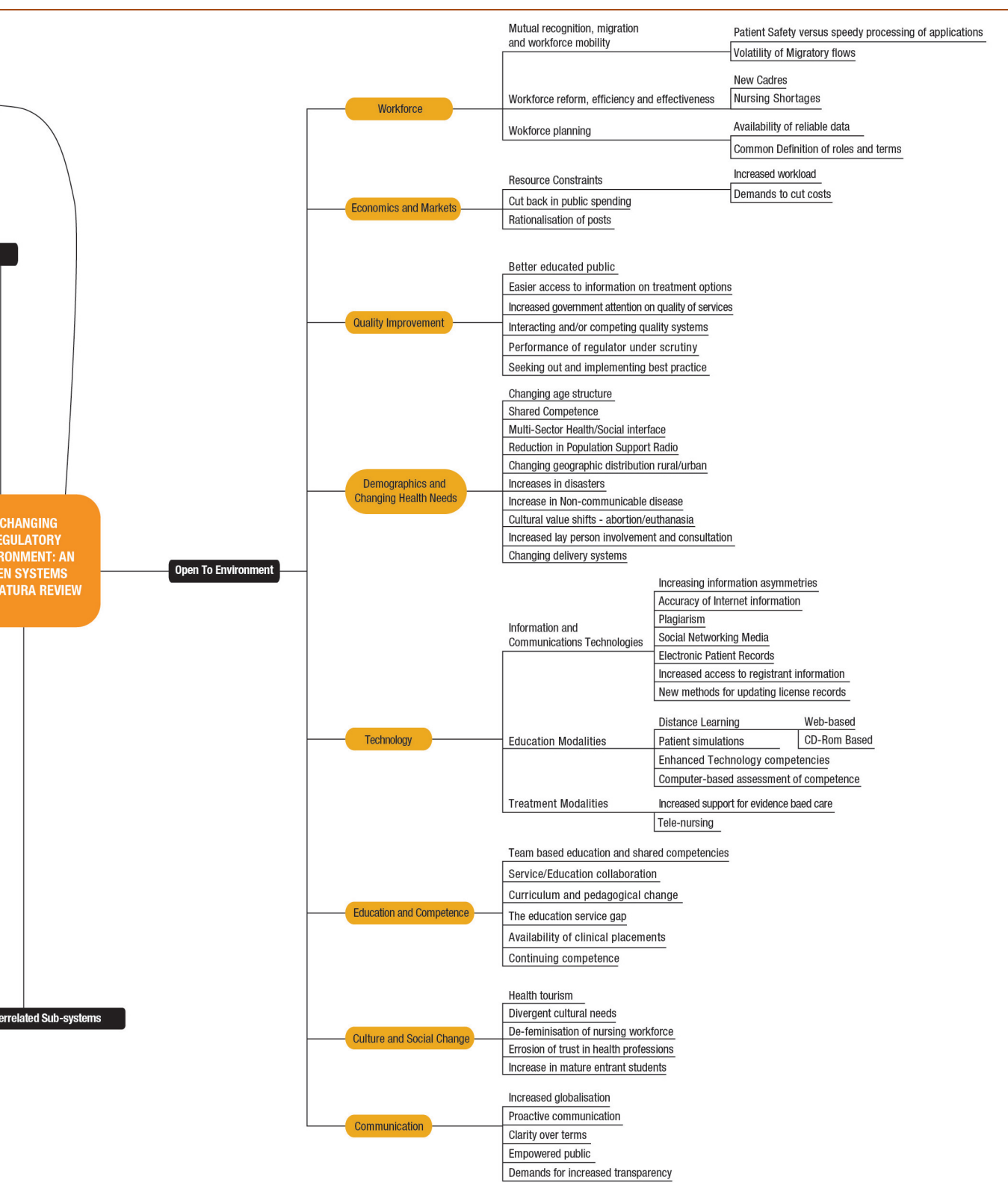


Table 2: Cross-tabulation of workforce with open to environment, inter-related sub-systems and input-transformation-output processes

WORKFORCE	Mutual Recognition, migration and workforce mobility;	Workforce reform, efficiency and effectiveness	Workforce planning
<b>Macro</b>	<b>Open to Environment</b> <ul style="list-style-type: none"> <li>• Labour migration</li> <li>• Costly and lengthy processes</li> <li>• Facilitating movement and protecting the public</li> <li>• Agreement development and knowledge of functioning</li> <li>• Changing workforce flows</li> </ul>	<ul style="list-style-type: none"> <li>• New cadres of workers</li> <li>• Outcomes of differing cadres</li> <li>• New regulatory processes</li> </ul>	<ul style="list-style-type: none"> <li>• Career frameworks</li> <li>• Positive practice environments</li> <li>• Nurse patient/ population ratios</li> <li>• Data quality and prospective modelling</li> </ul>
<b>Meso</b>	<b>Interrelated sub-systems</b> <ul style="list-style-type: none"> <li>• Relationships between different ministries</li> <li>• Education service links</li> <li>• Links between jurisdictions</li> <li>• Service/Recruitment agency relationships</li> </ul>	<ul style="list-style-type: none"> <li>• Inter-professional collaboration</li> <li>• Overlapping/shared scopes of practice</li> <li>• Turf wars</li> </ul>	<ul style="list-style-type: none"> <li>• Education and service links</li> <li>• Links between service sectors</li> <li>• Links between education providers</li> </ul>
<b>Micro</b>	<b>Input-transformation-output processes</b> <ul style="list-style-type: none"> <li>• Qualification portability and calibration</li> <li>• Adaptation programmes</li> <li>• Language and cultural competence</li> <li>• Administrative burden</li> <li>• Complaints and competence tracking</li> </ul>	<ul style="list-style-type: none"> <li>• Supervision and delegation</li> <li>• Changing scopes of practice</li> <li>• Competence based curricula</li> </ul>	<ul style="list-style-type: none"> <li>• Competence based scopes of practice</li> <li>• Reduced attrition</li> <li>• Programme articulation and APEL</li> </ul>

Table 3: Cross-tabulation of Technology with Open to Environment, Inter-related Sub-systems and Input-Transformation-Output Processes

TECHNOLOGY	Open to Environment	Information and Communication	Educational Modalities	Treatment Modalities
Macro		<ul style="list-style-type: none"> <li>• Electronic patient record</li> <li>• Ethical dilemmas (plagiarism, data security)</li> <li>• Social networking</li> <li>• Information Asymmetries</li> </ul>	<ul style="list-style-type: none"> <li>• Simulation</li> <li>• Distance learning and new pedagogies</li> </ul>	<ul style="list-style-type: none"> <li>• Decision support</li> <li>• Telenursing</li> <li>• Liabilities</li> </ul>
Meso	Interrelated sub-systems	<ul style="list-style-type: none"> <li>• Web content quality and internet service providers</li> </ul>	<ul style="list-style-type: none"> <li>• Educational institutions</li> <li>• Internet service Providers</li> </ul>	<ul style="list-style-type: none"> <li>• Vendor relationships</li> </ul>
Micro	Input-transformation-output processes	<ul style="list-style-type: none"> <li>• Online register access (confirmation of status, updating of records and re-licensure)</li> </ul>	<ul style="list-style-type: none"> <li>• Competence measurement and tracking</li> </ul>	<ul style="list-style-type: none"> <li>• Programme content</li> </ul>

**Table 4: Cross-tabulation of communication, demographic and changing health needs and quality improvement with open to environment, inter-related sub-systems and input-transformation-output processes**

	Communication		Demographics and changing health needs	Quality improvement
<b>Macro</b>	<b>Open to Environment</b>	<ul style="list-style-type: none"> <li>• Transparency</li> <li>• Accountability</li> <li>• Fairness</li> <li>• Proactivity</li> <li>• Credibility</li> <li>• Empowerment of public</li> </ul>	<ul style="list-style-type: none"> <li>• Age structure of society</li> <li>• Location and shifts in populations</li> <li>• Changing diseases</li> <li>• Social value changes</li> </ul>	<ul style="list-style-type: none"> <li>• Dynamic interaction of Different systems</li> <li>• Changing scope of powers and need to Collaborate with other regulators and sectors</li> <li>• External scrutiny of regulators and accountable institutional performance measurement</li> </ul>
<b>Meso</b>	<b>Interrelated sub-systems</b>	<ul style="list-style-type: none"> <li>• Broad based engagement with all stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Education and health ministry and provider collaboration</li> </ul>	<ul style="list-style-type: none"> <li>• Media</li> <li>• Educational, governmental &amp; service sector collaboration</li> </ul>
<b>Micro</b>	<b>Input-transformation-output processes</b>	<ul style="list-style-type: none"> <li>• Give notice of meetings</li> <li>• Ensure meetings open to public including public notice of those in-camera</li> <li>• Publication of minutes once adopted</li> <li>• Public members on the board</li> <li>• Publication of judgments and performance</li> <li>• Common terms and explicit language</li> </ul>	<ul style="list-style-type: none"> <li>• Changing delivery models with increased emphasis on primary care reflected in competencies, education and supervision requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Increased lay member engagement and representation</li> <li>• Curriculum change increasing focus on quality improvement</li> </ul>



**Table 5: Cross-tabulation of education and competence, culture and social changes and economics and markets with open to environment, inter-related sub-systems and input-transformation-output processes**

	Formación y competencia	Cambios culturales y sociales	Economía y mercados
<b>Macro</b>	<b>Open to Environment</b> <ul style="list-style-type: none"> <li>• Education service gap</li> <li>• Need for continuing competence</li> <li>• Shared competence and team based education</li> </ul>	<ul style="list-style-type: none"> <li>• Diversity and mass movements</li> <li>• Gender and Generational change</li> <li>• Societal values</li> </ul>	<ul style="list-style-type: none"> <li>• System wide resource constraints</li> <li>• Reductions in public spending</li> <li>• Increased workloads</li> <li>• Increased movement for work</li> <li>• Rationing of services</li> </ul>
<b>Meso</b>	<b>Interrelated sub-systems</b> <ul style="list-style-type: none"> <li>• Education and health Ministry and provider collaboration</li> <li>• Inter-disciplinary collaboration</li> </ul>	<ul style="list-style-type: none"> <li>• Relationships with other regulatory bodies</li> <li>• Identifying and sharing best practice</li> </ul>	<ul style="list-style-type: none"> <li>• Working with stakeholders to assess risk of cost reductions</li> </ul>
<b>Micro</b>	<b>Input-transformation-output processes</b> <ul style="list-style-type: none"> <li>• Joint programme and curriculum development and student selection with both education and service</li> <li>• Problem based learning in mixed teams</li> </ul>	<ul style="list-style-type: none"> <li>• Curriculum change to include cultural sensitivity</li> <li>• Change in pedagogy toward student centred adult learning</li> <li>• Transparent, and proactive consultation processes</li> </ul>	

The literature on nurse regulation, like its more distant cousins, such as health professions regulation, professional regulation and occupational regulation, is built upon one of three conceptual perspectives (Deighton-Smith et al, 2001):

- Public interest theory assumes that regulation is used to assure quality of professional services; or
- Capture theory (sometimes referred to as Chicago theory, economic theory, private interest theory or rent seeking theory) asserts that professionals 'capture' regulation and use it to deter entry and increase their incomes; or
- Political economy theory (sometimes referred to as public choice theory or credible commitment theory) takes a hybrid position asserting that both professional and public interests may simultaneously have an effect on the regulation of the professional.

**Figure 4. The embedded nature of nurse regulation**



### **Public Interest Theory**

Public interest theory is developed from classical representative democracy and the role of government and prevailed as the most common conceptualisation of regulation up until the 1960s (Christensen, 2010). Under this conceptualisation, theorists see its purpose as seeking to achieve certain publically desirable results, which if left to market forces would not be assured. Regulation is pursued for public as opposed to private interests. However, critics of the approach have contended that determining what is in the public interest can be difficult to assess in an objective sense (Gaffikin, 2005).

### **Capture Theory**

Introduced by Stigler (1971) and extended by one of his students (Peltzman, 1979) capture theory is predicated on the belief that the regulators are captured by interest groups that will benefit from the control mechanisms introduced. In short, private interests rather than public interests demand regulation and that it is those with the most to gain that argue for the implementation of regulations that can result in restriction against those that do not meet the standards and as a result of these standards the cost of the services (in the case of registered health professionals their salaries) are driven up.

Capture theory provides some of the theoretical foundation for the concept of 'Iron Triangles' where a three-way relationship is depicted as existing between the agency who regulates, the industry over which the regulations apply and the relevant legislative committee with the responsibility for drafting the respective law (Becker, 1983). However capture theory failed to provide an explanation for de-regulation and as a result a further theoretic model was sought.

### **Political Economy Theory**

Weaknesses in both public interest and capture theories have been identified by multiple authors (Gaffikin, 2005; Shleifer, 2005; Bowrey, et al., 2007; Christensen, 2010) and have resulted in the development of a new conceptual model.

Political economy theory places itself between public interest and capture theories. The theory focuses importance on the proper design of the administrative arrangements relating to regulation implementation and acknowledges that both the public and the professions will seek to influence the regulatory process and approaches. Theorists also contend that in this theory politicians acknowledge their inability to operate such systems in an impartial and informed manner and as a result introduce regulatory institutional designs that are expert and autonomous in nature thereby being capable of exercising decision making in a non-biased manner (Christensen, 2010).

Olsen (1999), in his comprehensive analysis of the regulation of medical professionals using this conceptual model, highlighted that:

***“A careful review of the literature yields no consistent picture of the impact that medical licensure has on income, prices, supply, or quality of medical professionals.”***

and additionally goes on to conclude that:

***“The fact that no consistent picture of that professional licensure has on supply, prices, income or quality of medical professionals emerges when reviewing the empirical literature seriously weakens support for both the capture theory and the public interest theory. The inconsistent impact of medical licensure actually lends support to the political economy theory of licensure where both medical professional and the public are expected to have an impact on licensure. The political economy theory predicts... that professionals will sometimes, but not always, have the ability to capture licensure to serve their own interests. At other times, or for other professions, licensure will be used to serve the best interests of the public.”***

Whilst the work of Olsen (1999) is comprehensive in its analysis of the wider empirical literature, mainly focusing on the legal and medical professions, he does fail to note that the majority of the studies are American in origin or use American professionals as part of an international comparison to professionals from another country with, on the whole, a similar legal tradition to regulation – that is the United Kingdom. The finding of this empirical study may not be transferable to countries that utilise a different regulatory model where for example the state plays a more dominant role or where the legal traditions are based upon a different set of precepts.

Also, rather obviously, Olsen (1999) fails to identify that not all professions considered in his analysis are equal in terms of their ability to act autonomously in the sale of their services. In the case of nurses, unlike doctors, dentists and optometrists, other than to a considerably restricted extent, do not offer care directly to the general public for a direct fee-for-services. On the whole nurses are employees of public or private health provider systems and therefore the ability to infer that these findings are generalisable should come with a considerable warning. Nevertheless, these two omissions should not undermine the appropriateness of the choice of the political economy theory as the conceptual model underpinning this study since this is particularly congruent with the perspective of: having multiple actors involved in the regulation of practice; the broad and diverse perspectives being considered due to the international comparative nature of the work; and that over the past decade this approach to regulatory systems design has been used to address the weaknesses of the other two models.

## REGULATORY BODY GOVERNANCE AND SYSTEMS

Examining the structure and governance of regulatory bodies and associated systems is complex and fraught with definitional traps. Baldwin et al. (1998) in seeking to bring clarity to their analysis of the topic noted that there are three distinct definitions that can be used to examine regulation (Table 6). To add further clarity the researcher has augmented the definition with a brief summary of the focus and specificity of the definition. In the remainder of this work it is the first definition, as it relates to individuals, services and sectors, that the research will adopt and is operationally defined as follows:

***REGULATION** is a specific form of governance composing a set of authoritative rules, often accompanied by some administrative agency, for monitoring and enforcing compliance.*

**Table 6. Augmented definitions of regulation by Baldwin et al. (1998)**

Type	Definition	Focus	Specificity
Regulation as a specific form of governance	A set of authoritative rules, often accompanied by some administrative agency, for monitoring and enforcing compliance	Individuals, services or sectors	Highly specific
Regulation as governance in a general sense	The aggregated efforts by state agencies to steer the economy	State	Less specific, often principle based
Regulation in its widest sense	All mechanisms of social control	Society	Least specific, norms and values

Whilst this operational definition is important it must also be noted that regulation as defined and applied to nurses can impact through the exertion of power at a variety of levels. In addition, the power can be applied by state-based through to profession-based organisations. Benton (2007a) identified and summarised five specific levels at which power can be exercised and these are repeated with minor amendments in Table 7. The specific focus for this study will be levels two and three although for analytical purposes some references will be made to the other levels.

**Table 7. Augmented summary of levels of regulation as defined by Benton (2007a)**

Level	Regulation acting through	Purpose	Authority
<b>One</b>	Trans-national/jurisdictional agreement	To provide a common legal approach across countries and jurisdictions	Regional and National Parliaments
<b>Two</b>	Statute, law, ordinance, decree	To provide statutory authority for the profession	Parliament, President. Minister, Emir, King etc.
<b>Three</b>	Rules and regulations	To further amplify and clarify the law	Minister, Nursing Council or delegated authority
<b>Four</b>	Interpretive and implementation	To put the content into specific guidance. To apply the law, rules and regulations	Nursing Council, or delegated authority.
<b>Five</b>	Voluntary codes, position statements, standards and competence frameworks	To give direction and provide a peer agreed benchmark against which the practitioners can be judged	Professional associations, special interest groups

Having identified an operational definition for regulation and specified the level at which the analysis will take place, there remains a number of definitional problems. The definition, scope and powers of state based regulation, co-regulation and self-regulation models are not neatly segmented (Bartle and Vass, 2005). Indeed an examination of just one of these categories such as 'self-regulation' shows it can mean very different things not only across jurisdictions where legal frameworks and cultural perspectives can vary but also even within a single jurisdiction when differing professional groups or sectors are being discussed (Turner, 1995; Allsop and Saks, 2002).

An earlier attempt to stimulate discussion and bring clarity to this matter formed the focus for a presentation by the researcher to the inaugural international conference organised by the World Health Professions Alliance (doctors, dentists, pharmacists and nurses) and the World Council of Physical Therapists in 2008. Having extensively reviewed the literature (Priest, 1997; National Consumer Council, 1999; Office of the Legislative

Auditor State of Minnesota, 1999; National Consumer Council, 2000; Van den Brerg, 2004; Bartle and Vass, 2005; Allsop and Jones, 2006; The Conference Board of Canada, 2007; Coglianesse and Mendelson, 2010), an attempt was made to present the relative advantages and disadvantages of various models – Table 8 (Benton, 2008).

Table 8 contains a great deal of information and for clarity the following explanation of the layout is given. There are three main areas of the table moving from left to right – a description of the model, the advantages of the models and the disadvantages of the models. The layout of the advantages and disadvantages can be mapped onto the layout of the models with the addition of an extra column area in both advantages and disadvantages. This extra column (left-most) in both the ‘advantages’ and ‘disadvantages’ area features the characteristics of any type of regulation. Some of the horizontal lines within both the advantages and disadvantages areas are broken lines. These broken lines are meant to convey the permeability of the boundary. In other words the points contained within a particular area of the table should not be interpreted as absolute but rather viewed that the point is there based on the balance of views distilled from the literature. A weakness of this work by Benton (2008) is the fact that none of the terms listed under the heading regulatory model were operationally defined and hence, although a degree of order is brought to the analysis of the literature, true clarity remains illusive.

## SUMMARY OF DIMENSIONS OF MODELS TO BE STUDIED

Professional regulation as seen from Table 8 comes in many forms. Many of the writers on the subject have added to the confusion by using terms in inconsistent ways and/or extending what is normally thought of as the limits of a particular term such as self-regulation. For example, The National Consumer Council (1999) stated that, in their view, self regulation consisted of three types:

- 1. Statutory professional self-regulation – where the regulatory body derives its powers from an Act of parliament. It is self-financing through registration fees. The profession maintains a register of those deemed competent to practise. It sets standards of performance and ethics and can expel members if they fail to meet these.**
- 2. Voluntary Regulation – professional associations register practitioners. Unlike statutory regulators, they do not have the same sanctions or control over professional and ethical standards, and cannot control who enters the profession.**
- 3. NHS (in the UK this is a public sector employer) regulation at local level– this is part of the contract of employment and includes disciplinary procedures, clinical audit and continuing professional development.**

National Consumer Council (1999)

Table 8. Matrix of advantages and disadvantages of different types of regulatory model (Benton 2008)

Regulatory Model		Advantages		Disadvantages	
State Based	Professionally Established	<ul style="list-style-type: none"> <li>Public protected from unscrupulous, incompetent and unethical practitioners</li> </ul>	<ul style="list-style-type: none"> <li>Guidance more likely to be 'owned' and followed by registrants</li> <li>Can go into greater detail due to readily available expertise</li> <li>Strong sense of professional identity</li> <li>Focus on prevention and practice improvement</li> <li>Normative influence on practice</li> </ul>	<ul style="list-style-type: none"> <li>Organisation can be established relatively quickly</li> <li>Can change policy and issue guidance quickly</li> <li>Can set aspirational standards</li> <li>Amenability to innovation</li> <li>Independence from government</li> </ul>	<ul style="list-style-type: none"> <li>Limited range of sanctions</li> <li>Only binding on those that are 'members'</li> <li>Can result in multiple and competing organisations</li> <li>Turf protection</li> <li>Conflict of interest between profession and public interest aims</li> <li>Lack of accountability to the public</li> </ul>
	Profession Based	<ul style="list-style-type: none"> <li>Offer assurance that the regulated individual is competent to provide certain services in a safe and effective manner</li> </ul>	<ul style="list-style-type: none"> <li>Capable of acting independently of Government</li> <li>Capable of adjudication, policy making and enforcement</li> </ul>	<ul style="list-style-type: none"> <li>Free to form alliances with stakeholders with mandate of acting in public interest</li> </ul>	<ul style="list-style-type: none"> <li>Need to wait for legislative time if primary and or secondary legislation is required to effect change</li> <li>Can be accused of acting in professional self interest</li> </ul>
	Arms Length Body established through statute	<ul style="list-style-type: none"> <li>Provide a means by which individuals who fail to comply with the profession's standards can be disciplined, including the revocation of their license</li> </ul>	<ul style="list-style-type: none"> <li>Policy can be changed through non-legislative means</li> <li>Protection of title</li> <li>Focus on performance against standards</li> <li>Explicit legislative influence on practice</li> </ul>	<ul style="list-style-type: none"> <li>Early access to information on wider policy change</li> <li>Accountability to parliament</li> <li>Can give the impression that central government is small due to 'off-shoring' the work</li> </ul>	<ul style="list-style-type: none"> <li>Cost to the registrant</li> <li>Can stifle competition due to restrictions on entry into practice and limits set through prescribed acts</li> <li>Ensuring accountability to the various stakeholders can be complex</li> <li>Can be mixed messages between regulator and other nurse leadership bodies</li> <li>Political interference</li> <li>Cost to the state</li> <li>Unlikely to have access to necessary expertise</li> </ul>
State Based	Part of Health Ministry	<ul style="list-style-type: none"> <li>Increase in public recognition and associated social status of the nurse</li> </ul>		<ul style="list-style-type: none"> <li>Standardisation of processes across professional groups</li> <li>Economies of scale</li> </ul>	<ul style="list-style-type: none"> <li>Not amenable to direct public involvement</li> <li>Micro-management by government officials.</li> <li>Minister takes flak for system failures</li> <li>Lack of transparency</li> <li>Lack of coherence and consistency</li> <li>Inability to monitor the implementation of the act in any detail</li> </ul>
	State Led		<ul style="list-style-type: none"> <li>Policy can be changed through non-legislative means</li> <li>Protection of title</li> <li>Focus on performance against standards</li> <li>Explicit legislative influence on practice</li> </ul>	<ul style="list-style-type: none"> <li>Accountability to parliament</li> <li>Can give the impression that central government is small due to 'off-shoring' the work</li> </ul>	<ul style="list-style-type: none"> <li>Adjudications and action can be seen as being tainted by government priorities of the day</li> </ul>



Although the first and second types are common to the writings of many other authors on the subject, the third type – although containing some characteristics of professional self-regulation (continuing professional development) – another aspect of the description would more typically be viewed as part of systems of quality improvement (clinical audit). However, it could also be argued that participation in clinical audit is an expected behaviour of a self-regulating professional. The remaining element relating to the control brought by the contract of employment and disciplinary procedures is a feature of any person working for any organisation and therefore would not be unique to self-regulation. Having said this, in recent years since the Shipman inquiry (Smith, 2005) and the subsequent introduction in the United Kingdom of revalidation procedures in a number of professions with direct links between data generated by the employer and the regulatory revalidation processes being proposed and implemented. As a result, the line between the employer's role in performance appraisal and that of the regulator in relation to competence is becoming increasingly blurred. Indeed the broader based definition of nurse regulation by Styles and Affara (1997) which states *"All of those legitimate and appropriate means — governmental, professional, private, and individual — whereby order, identity, consistency, and control are brought to the profession"* would clearly encompass all three aspects of the National Consumer Council (1999) typography.

Bartle and Vass (2005) acknowledge this definitional problem by stating that, when considering the literature on self-regulation, self-regulation can be located at any point along a continuum ranging from no-regulation ~ self-regulation ~ co-regulation ~ state-regulation. Table 9 offers a slightly amended version of the continuum along with brief descriptions of the various points on the continuum.

**Table 9. Modified description of the four points on the regulation continuum as proposed by Bartle and Vass (1998)**

Point on Continuum	Brief Description
No Regulation	No explicit controls or an organisation giving direction to practice.
Self Regulation	Regulations are specified, administered and enforced by the regulated organisation(s) and their registrants.
Co-Regulation	Regulations are specified, administered and enforced by a combination of the state and the regulated organisation(s).
State Regulation	Regulations are specified, administered and enforced by the state.

Acknowledging the fact that self-regulation can be placed at any point along this continuum Bartle and Vass (2005) go on to bring greater clarity to the nature or extent of 'self-regulation' by offering a more precise typography which in effect elaborates on the two middle points in their original continuum, that is:

- ***'Co-operative': co-operation between regulator and regulated on the operation of statutory regulation;***
- ***'Delegated': the delegation of the implementation of statutory duties by a public authority to self-regulatory bodies;***
- ***'Devolved': the devolution of statutory powers to self-regulatory bodies, often thought of as statutory self-regulation, i.e. the specification of self-regulatory schemes in statute;***
- ***'Facilitated': self-regulation explicitly supported by the state in some way but where the scheme itself is not backed by statute;***
- ***'Tacit': close to 'pure' self-regulation– self-regulation with little explicit state support, but its implicit role can be influential.***

*Bartle y Vass (2005)*

Whilst the definitions given by Bartle and Vass (2005) assist in developing academic clarity they are difficult to apply in practice since many regulatory bodies, as will be seen later in the results section of the analysis of legislation, are not archetypes but often hybrids crossing two or more of the definitions with mixed features. However, it is important to note that Bartle and Vass (2005), who base their analysis of a wide range of regulated sectors, do provide some useful perspectives that contribute, as seen in the discussions chapter, to formulating the findings of this study. Indeed, one of the most telling conclusions that derive from the work by Bartle and Vass (2005) is as follows:

***'...that the traditional view of self-regulation as an activity remote or removed from the interests of the regulatory state is an anachronism. While there are still examples of pure self-regulation of the traditional form, the examples indicate that even here it is reasonable to assert that the regulatory state exhibits at least a 'passive' interest in it; a passive interest which would be engaged should there be any 'shock' (or 'event') which activates the interest of the regulatory state. Such shocks typically lead to a new state of regulatory affairs involving greater state involvement.'***

By way of contrast both the Better Regulation Task Force (2003) and the Australian Government (Department of Industry, Science and Technology, 1998) have a different perspective on self-regulation. The Better Regulation Task Force's (2003) position could

at best be described as confused as it states that self-regulation is merely a set of voluntary rules developed by those that need to comply with the rules. However, later in the same document the Task Force states that although self-regulation does not imply a role for government and co-regulation does, they acknowledge that in reality and practice there is a degree of uncertainty of the role of government in both forms.

Although at variance with the position of Bartle and Vass (2005) in terms of their definition of self-regulation, the Department of Industry, Science and Technology of Australia (1998) does map and provide definitions for a five point 'regulatory spectrum', namely:

- **No regulation** ~ which they see as supporting fair and informed marketplace of consumers.
- **Self-regulation** ~ where business sets its own standards of conduct and enforces those standards without government involvement either in drafting the standards, promoting their use or in their enforcement.
- **Quasi-regulation** ~ refers to those situations where an industry adopts or uses codes of conduct in which government involvement extends to matters such as drafting the provisions or endorsing the code, but where enforcement of the code is left to the industry.
- **Co-regulation** ~ when an industry develops and administers a code and government provides the ability to enforce the code by giving it legislative backing in some way.
- **Legislation** ~ viewed to be appropriate when lesser interventionary approaches have been found to be inadequate in solving the problem or in areas where there is a clear and important public interest.

Baggott (1989) framed the analysis slightly differently and acknowledged that since the concept remained a rather elusive one he would rather seek to describe the concept using a range of key dimensions such as the level of formality; the degree of legislation; the extent of outsider participation. Moran and Wood (1993) later applied the multi-dimensional descriptive approach to their analysis of the General Medical Council in the UK. In their analysis, Moran and Wood (1993) demonstrated that a regulatory body could, across a range of its core functions (source of legislation, composition of the Council and rules agreed by the Council), vary in the degree to which the body was government or professionally led.

Priest (1997), when looking at the wider regulation literature, took a similar approach when she examined and described five models of self-regulation (voluntary codes of conduct, statutory self-regulation, firm-defined regulation, supervised self-regulation, and regulatory self management) using ten characteristics, specifically:

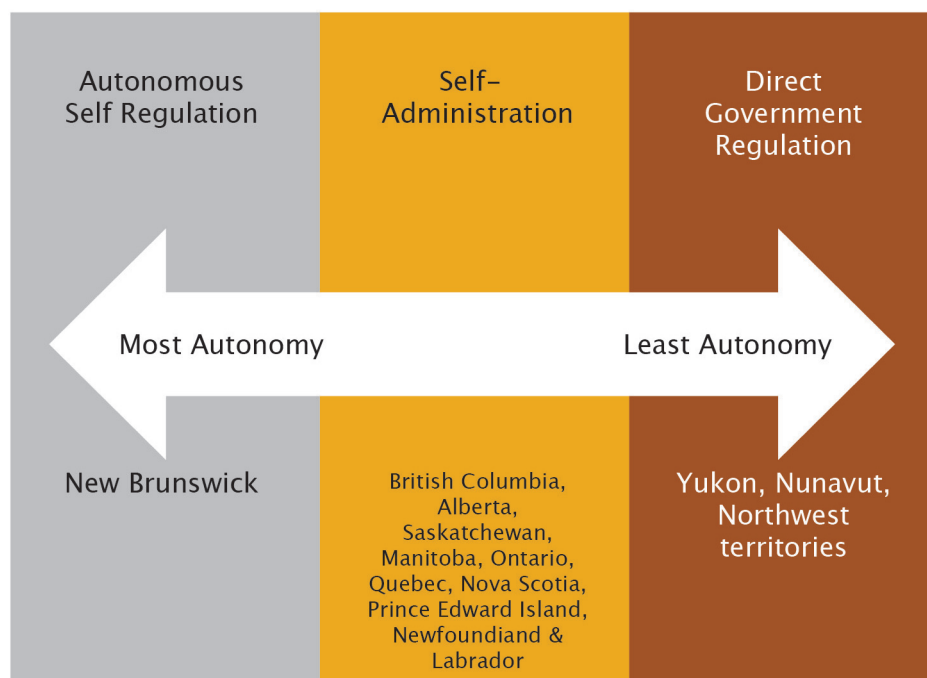
- **Government involvement** ~ the degree to which government plays a role in establishing the self-regulatory regime, setting policies and rules, monitoring for noncompliance, carrying out enforcements, adjudicating on noncompliance, imposing sanctions and generally being involved in the regulates.
- **Source of power** ~ the source of power to impose rules, monitor behaviour, adjudicate, enforce and impose sanctions on the registrants is identified.
- **Involvement of the public** ~ self-regulatory systems can be relatively closed to input from the public whereas others make use of consultation or involve public representatives in decision making and governance processes and bodies.
- **Accountability to government, regulators and the public** ~ lines of accountability and mechanisms for accountability vary and can include mechanisms to address accountability to government, the public and registrants and can include holding meetings in public, public reports, direct reporting to various bodies or oversight relationships.
- **Rulemaking** ~ registrants themselves may be involved in creating the rules that are imposed upon them whereas in other systems the rules are established by government. Irrespective of the approach the process can be open or closed to input from other stakeholders – client groups, employers, and other disciplines.
- **Adjudication** ~ the power to make determinations about non-compliance with rules and settle disputes may be vested with the profession, a mixture of professionals and the public or may involve third-party arbitrators or mediators in tribunals or in the courts.
- **Sanctions** ~ the range and strength of sanctions available in self-regulatory systems varies from peer disapproval to penal sanctioning, a range that also reflects the degree of government involvement.
- **Offences (regulatory, civil, criminal)** ~ the extent to which the regime relies on the powers of the state to create legal offences and punish contravening behaviours.
- **Membership/Coverage** ~ the degree to which either the total population of practitioners are cover or whether individuals have a choice whether to submit to self-regulation.
- **Judicial review, charter, ombudsman, information and privacy legislation** ~ the government mechanisms that exist to impose accountability, establishing standards of conduct and enhancing openness and transparency in the working of the regulatory body.

By using the ten characteristics, Priest (1997) was able to describe and differentiate the five types of self-regulation proposed in her paper. Whilst this approach has

considerable merit in developing operational definitions for this study the five models identified cannot simply be adopted as the basis of Priest's work was the regulation of a number of sectors including industry hence the "firm defined" and "regulatory self-management" models do not have a corollary with professional nurse self-regulation.

The Conference Board of Canada (2007) in a comprehensive analysis of self-regulation across all health disciplines, including nursing, identified three levels of regulation, namely self-regulation, self-administration and direct government regulation. In the analysis it was identified that the different Provinces and Territories of Canada approached the regulation of professionals slightly differently. Figure 5 highlights that New Brunswick offers the greatest level of autonomy to the professions and Yukon, Nunavut and Northern Territories the least.

**Figure 5. Categorisation of Provinces and Territories reproduced from The Conference Board of Canada, 2007**



The three levels used by The Conference Board of Canada (2007) are, in terms of definition, very similar to the last three categories used by Bartle and Vass (2005) although the terminology differs slightly. Accordingly, for the purpose of this research

study it is necessary to provide definitions of points along the continuum of professional nurse regulation. Synthesising the above literature a five-point continuum will be utilized (Table 10).

**Table 10. Five-point continuum of professional nurse regulation**

	Value	Label	Explanation
<b>Continuum of Professional Nurse Regulation</b>	1	No Regulation	Citizens and consumers are empowered to take full advantage of the services on offer and have sufficient information to take informed choices and avoid harm.
	2	Pure Self regulation	Organised professionals set their own standards of conduct and enforce those standards without government involvement either in drafting the standards, promoting their use or in there enforcement.
	3	Delegated Self-Regulation	The profession, through an autonomous board, develops and administers a code of conduct, standards of practice and education and government provides the ability to enforce the code by giving it legislative backing in some way.
	4	Supervised Self-regulation	The profession through an appointed board develops and administers a code of conduct, standards of practice and education and government approves these devices and provides the ability to enforce the code by giving it legislative backing in some way that is then monitored by a higher power that can intervene under certain circumstances.
	5	Government Based Regulation	Regulations, codes and standards are specified, administered and enforced by the government that may then directly employ professional staff who will provide the necessary expert knowledge.

## ADMINISTRATIVE SYSTEMS

Just as there are differences in the definition of self-regulation the way in which self-regulation is delivered also varies. Considering the legislative archive assembled by Benton and Morrison (2009b) where the legislation from 172 jurisdictions was gathered together it is evident that there are three basic approaches to the administration of regulatory systems:

- Single structure systems.
- Division of power systems.
- Umbrella systems.

### Single Structure Systems

The simplest structure used to implement professional nurse regulation is a single structure model. The structure can be autonomous, with or without delegated powers or can be government based such as either a specific arms length unit or as part of, for example, the ministry of health.

### Division of Powers Systems

This approach is most frequently found in countries that have state/federal structures. Some countries divide the regulatory powers between the federal and sub-federal levels. The way that the powers are divided can vary as can the balance across the levels of government. For example, in the United States little power resides at the federal level; instead, powers are exercised at the state level and the details of the precise powers vary quite significantly from state to state. In Brazil, a uniform model of division of powers between the federal level regulatory body and the regional colleges exists with the division of powers being set out in a single act. In the case of India there is a division of powers between the federal level and the state regulators but in this country, similar to the United States, the content of the state based acts vary considerably.

Another variation on the division of powers can be seen in some countries where powers relates to different levels of nurse. For example, in some states in America, and most Provinces in Canada, registered nurses are regulated by one body and licensed practical nurses by another.

### Umbrella Systems

The earlier work by Benton (2008), although mentioning umbrella systems, failed to map in any detail this relatively new, although, in some countries, increasingly popular approach that has started to emerge. Several examples can be found in the United States and Scandinavian countries. New Zealand introduced the Health Professions Competence Assurance Act in 2003 covering 15 different professions; and Ontario introduced and started a trend in the Provinces and Territories of Canada in 1991. A variation of the umbrella based model can also be found in Australia where, as a result of the recent changes, they moved from state based legislation to a federal based register and multi-professional state based operational offices; however, in this country there individual acts in each state or territory needed to be passed that in essence set up a common framework that collectively gave all country coverage.

Not all umbrella arrangements are the same but in general terms one act covers all (or most) regulated health professions and establishes the administrative regime(s). In some cases the scope can be even wider covering other occupational groups. The act can either lay down a framework for all regulation, or simply provide for parallel legislative language in various professional acts where there are individual bodies for

each of the professional groups. Umbrella models usually only set a general regulatory framework with much of the detail being contained in codes, regulations, orders or notices that then underpin and elaborate upon the primary legislation, although in some cases the detail can be specified in the overarching act with specific components for each discipline.

Rachlis and Kushner (1994) noted that there has been no robust evaluation of umbrella based approaches as compared to stand alone discipline based models, nevertheless both positive and negative views towards the umbrella based approach have been reported by Cutshall (1996).

Cutshall (1996) contended that, viewed positively, umbrella approaches provide uniform regulatory legislation ensuring consistency of public policy as it affects governance of the professions thereby, at least in theory, ensuring equity in government approach to the professions. Such boards can also provide the possibility of shared services where small groups can benefit from larger more efficient systems (Office of the Legislative State of Minnesota, 1999). However, viewed negatively, the approach according to Cutshall (1996) is seen as being like a “cookie cutter”, pandering to bureaucratic compulsiveness and ignoring differences in clinicians’ practice and culture of the various professional groups. An umbrella council can subject these individual boards to oversight and as a result the decision-making powers of the individual boards can be limited (Office of the Legislative Auditor State of Minnesota, 1999).

In more recent time, an American based study, consisting of an examination of regulations in 22 states relating to nurse practitioners, has been conducted to see if there are differences between the decisions taken in conduct cases and the degree of restriction of access to services. Statistically, significant results were found ( $p < 0.01$ ) in relation to restriction on access to services. In those states where power was shared (the umbrella model) access was more restrictive limiting the flexibility of response of the nurse (Rudner et al., 2010).

Finally, the Department of Health and Community Services (2009) and Field LLP (2011) noted that some umbrella approaches, in an attempt to facilitate collaborative practice and the development of shared competences across health disciplines, have augmented the model of a uniquely defined scope of practice to a model where controlled acts that are authorised to a specific profession(s). Only those individuals who are duly registered may perform these acts.

In analysing the different approaches to umbrella legislation the Office of the Legislative Auditor State of Minnesota (1999) defined three models (Table 11). As can be seen from the descriptions of the three models they are differentiated on the basis of the degree of autonomy, which can relate to structures, process and powers.



**Table 11. Models of umbrella regulation from occupational regulation, Office of the Legislative Auditor State of Minnesota (1999)**

Model	Description
<b>One</b>	Boards are autonomous. They hire their own staff, make decisions about office location, purchasing and procedures. Each board receives and investigates complaints and disciplines licensees. Each board is responsible for the preparation, conduct and grading of examinations or the contracting out of these tasks. Each board sets qualifications for licensing and standards for practice. Boards collect fees and maintain financial records. Board staff prepares and mails applications for licensing and renewal, and answers inquiries from licensees and the public.
<b>Two</b>	Boards are autonomous and have decision-making authority in many areas. The central agency, however, has greater authority over certain functions. Its powers go beyond housekeeping. For example, board budgets, personnel and records may be subject to some control by the agency. Centralised systems and staff may handle complaints, investigations and adjudicatory hearings, even when boards continue to make final decisions with respect to disciplinary actions.
<b>Three</b>	An agency director, commission or council, with or without the assistance of a board, runs the regulatory system. Where boards do exist, they are strictly advisory. The agency director, commission or council has final decision-making authority on all substantive matters. Boards may be delegated such functions as preparing or approving exams, setting pass/fail points, recommending professional standards, and recommending disciplinary sanctions.

Drawing together the material from the three sections on administrative systems, six models can be identified, Table 12.

**Table 12. Summary of models to describe administrative approaches**

	Value	Model	Explanation
<b>Administrative Approach</b>	1	Multi-Disciplinary Single Board Umbrella	Umbrella legislation covering multiple disciplines with a single governance board.
	2	Multi-Disciplinary with Individual Boards but with Shared Services	Umbrella legislation covering multiple disciplines with delegated authority to multiple, profession specific, boards who can make policy in a range of areas but who share services and or accommodation.
	3	Multi-Disciplinary with Individual Boards	Umbrella legislation covering multiple disciplines with delegated authority to multiple, independent, profession specific, boards.
	4	Single Board	Profession specific legislation with delegated power to a single profession based board.
	5	Regulatory Unit	Regulation processes are managed by a unit or as part of a government entity such as the Ministry of Health established through a ministerial or other decree.
	6	Division of Powers	Division of powers between federal and regional structures or different entities relating to levels of nurse.

## PRINCIPLES UNDERPINNING CONTEMPORARY REGULATION

Whilst models of how the nursing profession is regulated and the administrative frameworks used to implement such legislation vary, a number of authors have identified that there may be value in using a principle-based approach that clearly states the expectations of the regulatory system and in so doing can facilitate dialogue across jurisdictions (Styles and Affara, 1986; Benton and Morrison, 2009a).

Across broader regulated sectors, the same approach has been used to facilitate international dialogue amongst differing regulatory authorities as well as assisting in getting the right balance between protecting the public; minimising bureaucracy; and stimulating efficiency and competition in dynamic environments (External Advisory Committee on Smart Regulation, 2004; Better Regulation Taskforce, 2005; Taskforce on Reducing Regulatory Burdens on Business, 2006).

Benton and Morrison (2009a) updated and extended the 12 principles identified by Styles and Affara (1986) and offered short practical examples of their application in response to requests from users of the approach who found difficulty in operationalising the somewhat brief descriptions (Table 13).

The principles-based approach is now being used more and more although the range of principles defined can be significantly fewer than the extensive list developed by Styles and Affara (1986) albeit almost two decades earlier.

After presenting the set of definitions developed by Styles and Affara (1986) augmented by the inclusion of a set of practical examples or manifestations by Benton and Morrison (2009a), a detailed critical comment on each of the principles will follow.

Subsequent to this analysis a revised set of principles will be presented (Table 14) that will then be used to help explore those principles proposed by other authors on the subject. The principles proposed by other authors often seek to respond to many of the contemporary changes in the regulatory environment identified earlier in the chapter.

**Purposefulness** – this is still relevant – although it can be argued that it should be extended to encompass the dimensions of both initial and ongoing competence. This links to the calls from the public to adequately address ongoing competence to practice as the external environment evolves, interventions are updated, and public expectations and needs change.

**Relevance** – having updated the description of purposefulness it is not necessary to alter the definition of relevance other than to insert the word ‘explicit’, since increasingly the purpose is explicitly stated rather than implicitly inferred (JB Consulting, 1998).

**Definition** – with the increased use of the ‘controlled acts’ approach (College of Nurses of Ontario, 2009) to scope of practice, reference to this approach should be inserted into the description.

**Table 13. Regulatory principles as modified and described by Benton and Morrison (2009a)**

Principle	Description	Practical Manifestation
<b>Purposefulness</b>	Regulation should be directed toward an explicit purpose.	The legislation should clearly state what it is trying to achieve. For example: The Act sets out to protect the public by establishing and enforcing standards of practice.
<b>Relevance</b>	Regulation should be designed to achieve the stated purpose.	Having set out the purpose, all authorities and powers described within the legislation should support the achievement of that purpose. Legislation should be monitored to ensure it remains current and reflects contemporary regulatory practice.
<b>Definition</b>	Regulatory standards should be based upon clear definitions of professional scope and accountability.	By offering specific definitions of nursing and nurses, the associated accountabilities and responsibilities of those standards are clearly communicated to the public, profession, other professions, government and employers.
<b>Professional ultimacy</b>	Regulatory definitions and standards should promote the fullest development of the profession commensurate with its potential social contribution.	As health systems change and evolve, legislation must support the development of the profession to pursue its ultimate contribution to quality service provision and access to services. In addition to developing codes and standards of practice, regulatory bodies must also acknowledge their additional responsibilities to participate in health policy development as well as related policy and legislative environments.
<b>Multiple interests and responsibilities</b>	Regulatory systems should recognise and properly incorporate the legitimate roles and responsibilities of interested parties – public, profession and its members, government, employers, other professions – in aspects of standard setting and administration.	The profession holds a critical and central role in regulation and should take a leading role in its governance. However, it is important that the development of standards engages, through consultation and other means, the various stakeholders and that these contributions are received and treated in an unbiased manner so as to balance all the various interests.

**Table 13. Regulatory principles as modified and described by Benton and Morrison (2009a) – continued**

<b>Representational balance</b>	The design of the regulatory system should acknowledge and appropriately balance interdependent interests.	Membership of boards, committees and sub committees of regulatory bodies should be constituted as far as possible by a broad representation of stakeholders. Participation in these groups should be supported by robust induction to ensure the contribution and decision making of members is in the best interests of regulation and not the individual stakeholder group who may have nominated them.
<b>Optimacy</b>	Regulatory systems should provide and be limited to those controls and restrictions necessary to achieve their objectives.	Regulators should regularly review their processes and policies to ensure that the minimum number of controls are in place to achieve the desired outcome. This will simplify the processes and minimise bureaucracy hence making systems more transparent, efficient and effective. In some systems this is referred to as being proportional to the level of risk.
<b>Flexibility</b>	Standards and processes of regulation should be sufficiently broad and flexible to achieve their objectives and at the same time permit freedom for innovation, growth, and change.	In the dynamic health care environment, responsiveness to changing conditions and requirements is facilitated through broad 'arms length' legislation and regulation. Enhancements and innovations to nursing practice and standards are more easily introduced through policy guidelines than prescriptive legislation.
<b>Efficiency and congruence</b>	Regulatory systems should operate in the most efficient manner, ensuring coherence and coordination among their parts.	In developing systems of regulation a regulatory impact analysis should be conducted to support a risk based approach and add transparency to decision making.
<b>Universality</b>	Regulatory systems should promote universal standards of performance and foster professional identity and mobility to the fullest extent compatible with local needs and circumstances.	With increased mobility of professionals and movement of patients there is an increased expectation that standards will converge. The publication of standards, the comparison across jurisdictions and the sharing of best practice can all assist in achieving universality.

**Table 13. Regulatory principles as modified and described by Benton and Morrison (2009a) – continued**

<b>Fairness and transparency</b>	Regulatory processes should provide honest and just treatment for those parties regulated.	To maintain public confidence it is essential that decision-making processes demonstrate natural justice (procedural fairness), are open to scrutiny and able to offer clear evidence and reasons to support decisions reached. Therefore where a decision may affect a nurse's rights or interests, the nurse has the right to (a) a fair hearing and to present their case, (b) an unbiased decision-maker and (c) have the decision based on relevant evidence.
<b>Inter-professional equality and compatibility</b>	In standards and processes regulatory systems should recognise the equality and interdependence of professions.	Most health care is delivered by teams of professionals working together with a mutual understanding of one another's roles. The inclusion of how to work in teams in the curriculum or experience as students through problem based learning can assist the development of this approach.

**Professional ultimacy** –with increasing shortages of licenced nurses (WHO, 2006) and recognition of the need to recruit and retain these nurses particularly in rural and remote areas (WHO, 2010b), this principle is not only congruent with others described later but also resonates well with the concepts included in the ICN publication on Positive Practice Environments (ICN, 2007). There is therefore no need to update this definition.

**Collaboration** – formerly, *Multiple interests and responsibilities*. As health care has advanced and teamwork developed including the concepts of shared competencies it is no longer sufficient to simply acknowledge that there are multiple interests and responsibilities rather it is essential that collaboration becomes the principle to be pursued. This approach is variously recognised through the writing on the College of Nurses of Ontario (2009) in relation to controlled acts that may be shared by several professions or by virtue of the fact that the regulatory body is but one actor in an orchestra of players seeking to protect the public (Benton and Morrison, 2009a).

**Representational balance** – at the time when Styles and Affara (1986) developed their work the importance of this principle was recognised. Through engaging the lay

public increased transparency can be assured and those criticisms associated with regulatory capture challenged (Stigler, 1971; Peltzman, 1979).

**Optimacy** – or as will be seen later in this chapter the idea of proportionality to level of risk is even more relevant today than it was two decades ago. Ensuring that only those controls and restrictions that are needed to assure the desired purpose is in place helps focus the organisation on its essential functions. However inherent in the new thinking (Better Regulation Taskforce, 2005) is the idea of proportionality that is where the level of response is not uniform but is related to the magnitude of the risk and accordingly a slight modification to the description has been made – Table 14.

**Flexibility** – lack of flexibility of the regulator has been highlighted as a barrier to progressive change of health systems (WHO, 2006) and has been identified by a number of investigations as being critical in avoiding serious failure of regulatory systems. Increasingly authors such as Benton (2007a) have advocated not only for flexible but permissive legislation and standards. Accordingly some minor changes to the description of the principle have been made.

**Efficiency** – the word congruence has been dropped from the principle since it is argued that for a system to be efficient there needs to be congruence amongst its component parts. Within increased external scrutiny and cost pressures the idea of optimising the use of resources has been introduced to the description (Pew Health Professions Commission, 1995a; State Government of Victoria, 2003)

**Universality** – in the time since Styles and Affara (1986) the phenomenon of nurse migration has become a major focus of professional, public and governmental interest (WHO 2006; ICN, 2004). This principle has not been modified.

**Natural justice** – formerly *Fairness and transparency* – this principle has been split into two specific principles. Self-regulation has come under criticism for promoting the interests of the profession ahead of those of the public (Stigler, 1971; Peltzman, 1979). Therefore the emphasis of the definition, which did not address transparency and seemed biased towards the registrant, is being changed to reflect a more balanced and contemporary stance hence the principle of natural justice where all parties are treated fairly.

**Transparency** – with the advent of increased emphasis on good governance all state and non-state bodies are being encouraged and, in some cases, required to be more transparent in their interactions with stakeholders. This can involve increased consultation, publishing clearer information or making it available via the Internet. In addition the involvement of lay members in strategic, policy and operational processes has been suggested as a means of increasing transparency (Pew Health Professions Commission, 1995b; Norman, 2002; Surdyk et al., 2003; College of Nurses of Ontario, 2006).

**Inter-professional equality and compatibility** – the final principle described by Styles and Affara (1986) has been deleted as it significantly overlapped with the ideas contained in *Multiple interests and responsibilities* now ‘Collaboration’ and those contained in the principle ‘Professional Ultimacy’.

Missing is the principle of **accountability**. Accountability is at the very heart of regulation and relates to both the organisation and the individual being regulated. It is therefore suggested that any contemporary system that does not pursue the principle of accountability would be viewed as lacking.

Finally, although the principle of efficiency is mentioned, as is relevance and purposefulness, there is now reference to **effectiveness**. To maintain public, governmental and professional trust regulatory systems must be effective.

Table 14 has drawn together all the changes and provides a summary of the amended list of principles and their modified description (Benton, et al, 2013<sup>b</sup>).

**Table 14. Summary of the amended list of principles and their modified/new description from Benton, et al<sup>b</sup>. (2013)**

Principle	Description
<b>Purposefulness</b>	Regulation should be directed toward an explicit purpose that reflects both initial and ongoing focus on competent practice.
<b>Definition</b>	Regulatory standards should be based upon clear definitions of professional scope, controlled acts and accountability.
<b>Professional ultimacy</b>	Regulatory definitions and standards should promote the fullest development of the profession commensurate with its potential social contribution
<b>Collaboration</b>	Regulatory systems should recognise and properly consult and then incorporate the legitimate perspectives of interested parties – public, profession and its members, government, employers, other professions – in aspects of standard setting and administration.
<b>Representational balance</b>	The design of the regulatory system should acknowledge and appropriately balance interdependent interests.

<b>Optimacy</b>	Regulatory systems should provide and be limited to those proportionate controls and restrictions necessary to achieve their objectives.
<b>Flexibility</b>	Standards and processes of regulation should be sufficiently broad flexible and permissive to achieve their objectives thereby permitting freedom for innovation, growth, and change.
<b>Efficiency</b>	Regulatory systems should operate in the most efficient manner, ensuring coherence and coordination among their parts so as to optimise resources used to achieve the stated explicit purpose.
<b>Universality</b>	Regulatory systems should promote universal standards of performance and foster professional identity and mobility to the fullest extent compatible with local needs and circumstances.
<b>Natural justice</b>	Regulatory processes should provide honest and just treatment for all parties involved.
<b>Transparency</b>	Regulatory agencies should communicate using clear language, support lay-involvement and make the maximum amount of information publically available so all interested parties can make informed choices about strategic, policy and operational matters.
<b>Accountability</b>	Regulatory agencies and those they regulate must be held accountable for their actions and be open to scrutiny and challenge.
<b>Effectiveness</b>	To maintain public, governmental and professional trust regulatory systems must be effective.

Having critically reviewed the principles identified by Styles and Affara (1986) and subsequently updated by Benton and Morrison (2009a), it is recognised that since the original work was developed the approach of using principles to help formulate regulatory structures and practice has increased. Therefore there is a need for further, more detailed analysis. A mapping of the principles identified by the various authors, mostly from developed countries and focusing on wider regulatory structures, can be found at Table 15 (Benton, et al<sup>b</sup>, 2013)



The first observation that can be made is that there are no principles proposed by any other author that cannot be covered under those identified in the above critical analysis presented and summarised in Table 14 (Benton, et al<sup>b</sup>, 2013).

Second, sometimes a principle may apply to two categories in the updated analysis indicating that the detailed description of the principle in the other work is of a compound nature covering content from the two discrete principles.

Third, and in part the converse of the second point, on some occasions two principles from one paper may relate to a single principle in the updated critical analysis – indicating that either there is overlap in the principles in the second paper or the updated principle definition is broader. For example two principles in the OECD (2007) paper ‘Avoidance of unnecessary restrictiveness’ and ‘Vigorous application of competition principles’ are in effect the two sides of the principle of *Optimacy*.

Fourth, on some occasions the terminology is more specific or restricted than that used in the principles elaborated in the above critical analysis, for example ‘Public protection’ (NCSNN, 2007) is a more precise formulation of *Purposefulness*. Likewise, and again from the NCSNN (2007) paper, ‘Strategic collaboration’ is a subset of *Collaboration*.

Fifth, the converse to the above point can also be seen where a word that is used to describe a principle would normally be interpreted to have a wider meaning. For example, Adrian (2006), in her comprehensive analysis of nursing legislation in the states and territories of Australia, identifies ‘Leadership’ as a principle but then goes on to define it in terms of influencing and pursuing the powers given to the regulatory authority with the primary purpose of protecting the public.

Sixth, reading across a particular principle a set of synonyms can start to be generated albeit with some cautions as a result of the point made above regarding restricted or incomplete coverage.

Seventh, the “author – source boxes” have been colour coded like-with-like; orange – nursing papers; pink – finance papers; green – cross government papers. This helps to identify gaps and overlaps. Most notable in terms of gaps is the fact that the principles of *Relevance* and *Universality* have not been identified by any of the authors other than by Styles and Affara (1986) and the author of this thesis. It could be argued that *Relevance*, and in particular the meaning given to the principle by Styles and Affara (1986), is in effect a specific aspect of an efficient system; accordingly, the principle of *Relevance* should be incorporated into the broader term. However, in the case of *Universality* the same line of argument cannot be identified. Indeed it can be argued and has been acknowledged (McElmurray et al. 2006) that, in the case of migration, nurses are the marker profession since they are, both in terms of overall numbers and complexity of migration flows, the group that demonstrates greatest professional mobility. Added to

this, Baldwin et al. (2010) in their analysis of some of the challenges facing the precise definition of regulation noted:

***The distribution of ‘public authority’ over several levels of government and between private and state sectors varies and is highly contested”.***

Hence the principle of *Universality* is, with such global movements and a recognised need to facilitate standardisation across jurisdictions and multiple actors, a required principle.

As can be seen from the frequency of inclusion in other frameworks the recently added principles of *Transparency*, *Accountability* and *Effectiveness* would seem warranted. Drawing together these observations it is suggested that the final list of principles should number 13 in total, namely all those included in Table 14.

Irrespective of the legislative model and the principles pursued, the current mechanisms available to regulators are similar and are discussed in the next section.

## **CURRENT MECHANISMS FOR EXERCISING PROFESSIONAL REGULATION**

The definition of professional regulation given by Styles and Affara (1997) in the introductory paragraph to this chapter points towards some of the measures used to pursue professional regulation as has the analysis of the literature relating to the open systems theory concept *Input–Transformation–Output Process*.

There now follows a more comprehensive exploration and definition of the mechanisms that can be used. Fels et al. (1998) when examining the broader area of occupational regulation provided a useful three-part typography for analysing the various mechanisms that can be used to regulate professionals. The three-part typography includes:

- Entry barriers;
- Transactions; and
- Redress mechanisms.

Table 16 provides a summary of the various approaches that can be used, sorted by the three-part typography described by Fels et al. (1998).

Table 15. Comparison of principles identified from updated critical analysis by Benton, et al.<sup>a</sup> (2013)

Authors					
Principles	Updated Critical Analysis actualizado	Styles & Affara 1986	Monetary Authority of Singapore 2010	Smith 2007	NCSBN 2007
	• Purposefulness	• Purposefulness			• Public protection • Competence
	• Relevance	• Relevance			
	• Definition	• Definition	• Clear & consistent		
	• Professional ultimacy	• Objetivo profesional último igualdad y compatibilidad interprofesional		• Mayor libertad para adoptar planteamiento propio	
	• Colaboración	• Multiple interests & responsibilities múltiples • Inter-professional equality & compatibility	• Shared responsibility	• Engagement • Public participation	• Strategic collaboration
	• Representational balance	• Representational balance		• Public participation	
	• Optimacy	• Optimacy	• Risk appropriate		
	• Flexibility	• Flexibility & cycles	• Responsive to change	• Flexible and responsive y al entorno sanitario	• Responsive to marketplace and healthcare environment
	• Efficiency	• Efficiency & congruence	• Impact sensitive	• More efficiency • Reduced complexity & simplification	
	• Universality	• Universality			
	• Natural Justice	• Fairness & transparency			• Due process & ethical decision making
	• Transparency		• Clear & consistent		
	• Accountability				• Shared accountability
	• Effectiveness		• Impact sensitive	• Greater degree of substantive compliance	• Evidence based

Table 15. (continued)

Authors					
Principles	Updated Critical Analysis	OECD 2007	Arculus 2009	Thomadakis 2007	National Consumer Council 2000
	• Purposefulness				
	• Relevance				
	• Definition		• Consistency		• Consistency
	• Professional ultimacy				
	• Collaboration				
	• Representational balance				
	• Optimacy	• Avoidance of unnecessary • Vigorous application of competition principles	• Proportionality	• Necessity • Proportionality	• Proportionality
	• Flexibility			• Flexibility	
	• Efficiency	• Streamlining conformity procedures			
	• Universality				
	• Natural Justice	• No-discrimination			
	• Transparency	• Transparency	• Transparency	• Transparency	• Transparency
	• Accountability		• Accountability		• Accountability
	• Effectiveness		• Targeted	• Effectiveness	• Targeted

Table 15. (*continued*)

Authors					
Principles	Updated Critical Analysis	Department of Toiseach 2004	External Advisory Committee on Smart Regulation 2004	Better Regulation Task Force 2005	Adrian (2006)
	• Purposefulness				• Leadership
	• Relevance				
	• Definition	• Consistency		• Consistency	• Consistency
	• Professional ultimacy				
	• Collaboration				
	• Representational balance				
	• Optimicity	• Necessity • Proportionality		• Proportionality to risk	
	• Flexibility				• Flexibility
	• Efficiency		• Timeliness • Cost efficiency		• Efficiency
	• Universality				
	• Natural Justice				• Fairness • Integrity
	• Transparency	• Transparency	• Transparency	• Transparent	• Transparency and openness
	• Accountability	• Accountability	• Accountability & performance	• Accountable to ministers, parliament, users and public	• Accountability • Stewardship
	• Effectiveness	• Effectiveness	• Effectiveness	• Target focused on problem solving, with minimum side effects	• Effectiveness

**Table 16. Summary of mechanisms used to exercise professional regulation**

Entry Barriers	Transactions	Redress Mechanisms
Registration	Information regulation	Conduct
Use of title	Transaction regulation	Health
Licensure		Competence
Negative licensing		Continuing education
Certification		

### Registration

In the majority of the world, registration is seen as a mechanism where an individual who has met basic entry requirements such as age and/or minimum years of primary and secondary schooling, completion of a specific educational programme and is deemed a 'fit person' can have their name listed or entered on a public register that is normally held by either a governmental or a self-regulatory agency. With the exception of the United Kingdom registration is viewed as a less rigorous approach than licensure however in the UK the situation is reversed since being listed on the register does require an individual to comply with a specific standard (Moore and Tarr, 1989; Rops, 2004).

### Use of Title

In some countries only those individuals who have satisfied certain requirements may use a protected title such as 'Licensed Nurse'. The protection of title is normally associated with other entry barriers, for example, licensure or voluntary/mandatory certification. To use a protected title without meeting the required processes is an offence and will normally carry some punishment for the individual concerned (Rops 2004).

### Licensure

Licensure confers the right to practice a particular profession. It requires completion of an approved programme of education, certain age and minimum educational entry criteria to be met, being a fit person, compliance with a specific scope of practice and in some jurisdictions initial and ongoing evidence of competence (Rooney and van Ostenberg, 1999; Moore and Tarr, 1989; Deighton-Smith et al. 2001). Licensure sets a minimum threshold and conveys a minimum standard has been met.

## Negative Licensing

Negative Licensing is where an individual who has been banned from working with a particular client group or in a particular profession has their name entered into a publicly accessible list (Rops 2004). Although this approach is not commonly used, increasing numbers of regulators are publishing the names and the associated findings of investigations with the names of those removed from the register. The problem with such an approach, with a globally mobile profession, is that there is no centrally held list and therefore multiple negative registers could at best provide only limited protection.

## Certification

Certification is normally a voluntary process and indicates that the person has achieved a higher level of competence than that required by licensure (Deighton-Smith et al 2001; Rooney and van Ostenberg, 1999). Certification is commonly used when nurses – often working in a specific specialty area or with a defined client group – wish to convey the fact that they have obtained further education and have completed and passed a higher-level assessment of their competence.

## Information Regulation

Information regulation can be used either on its own or as part of other techniques. Requiring certain information to be made available through a readily accessible route can help users of a service to decide whether the service provider is appropriate to their needs or may offer objective, validated advice on how to make such an assessment.

## Transactional Regulation

Transactional regulation is not commonly used, on its own, as a mechanism to exercise professional regulation. This approach is commonly used when information needs to be conveyed such as the health warning on a packet of cigarettes. However, it can be a requirement of a professional's ethical code or code of conduct, for example, a requirement to provide informed consent when an intervention is being offered.

## Conduct

When, a professional fails to meet required standards of conduct, health or competence then the regulatory authority can take action to address the shortcoming. Sometimes the range of options available to the regulatory authority can be limited (removal or suspension of the person's licence); in other jurisdictions the range of options can be more extensive and flexible (required retraining, restriction on their personal scope of practice, periods of supervised practice, treatment, fines or suspension of their licence for a period).

In the case of conduct, a professional needs to comply with the requirements of their ethical code, scope of practice and code of conduct. Individuals, who knowingly or recklessly cause injury, work beyond the scope of practice, act in an unjust or dishonest

manner or in such a way that fails to comply with accepted or customary behaviour will be subject to investigation and if found guilty some form of redress pursued which, as mentioned previously, is becoming more and more sophisticated in response options.

## **Health**

Not all jurisdictions recognise that a licenced practitioner can have a health problem, which can, as a result of their illness, have an adverse impact on the individual's competence or conduct. More modern and enlightened regulatory systems recognise that health can have an impact and that if the person receives treatment they can return to work and function perfectly competently and comply with expected conduct requirements.

## **Competence and Continuing Education**

With such rapid changes in health systems, an increasing number of jurisdictions are requiring evidence of continuing competence and/or participation in continuing education. The sophistication of these systems can vary considerably. Some simply require evidence that the individual has undertaken some educational activity and or practiced a minimum number of hours; other jurisdictions require the submission of evidence of self-reflective appraisal of their competence or even evidence of some 360 degree evaluation.

## **KEY POINTS FROM EXISTING LITERATURE**

It has been noted that the academic literature on nurse regulation is extremely limited and that which is available has methodological weaknesses as well as an underlying bias (informed from the perspectives of senior nurse leaders normally based within individual countries).

Within the context of increased globalisation and a wider range of models being used to regulate the nursing profession, the time would seem right to undertake an exploratory international comparative analysis of how the practise of nurses is regulated.

The use of an open systems analysis to the factors impacting on the regulatory landscape alongside the use of the political economy conceptual framework has provided a basis upon which the research design and methods have been formulated.

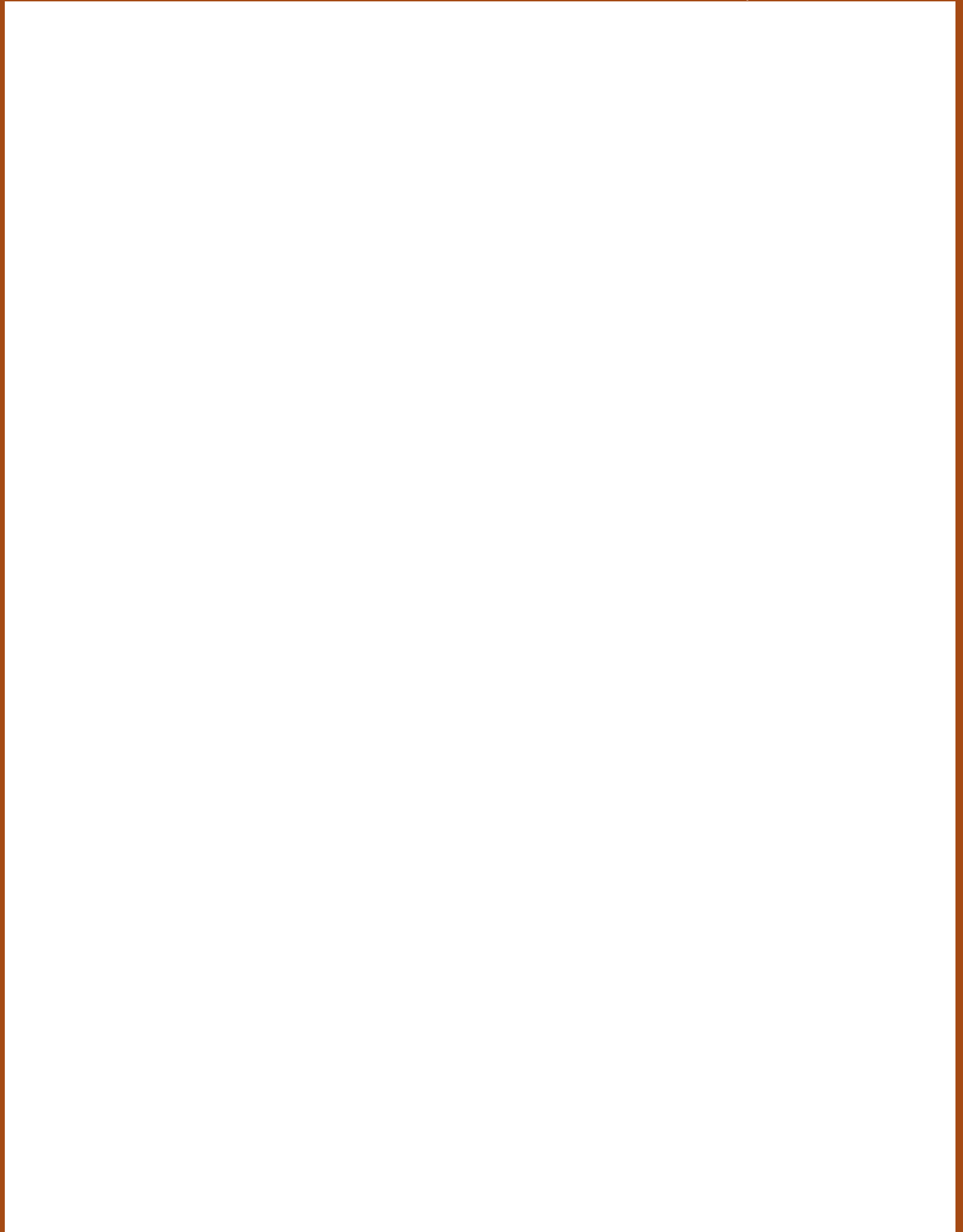
Several gaps in the existing literature have been identified and addressed. Through a thorough exploration of existing literature from nursing, health disciplines and wider regulatory systems, it has been possible to identify a proposed typology relevant to nursing and describing the continuum of regulation – from no-regulation, through various degrees of self-regulation and including government-based regulation. In addition, a typology that encompasses the latest developments in administrative structures and approaches has been identified. Both this continuum and the



administrative structures form a central plank of the research work in this study. Additionally, the principles identified by Styles and Affara (1986) have been critically reviewed and within the context of the factors impacting on nurse regulation and the emergent approach of the use of principles in other sectors, an updated contemporary set of principles have been identified and described.

The above summary of key points from the review of the literature is further considered in the subsequent chapter on conclusions and recommendations that offers suggestions for further research based on the gaps identified.







## CHAPTER 2 HYPOTHESIS AND OBJECTIVES

### STATEMENT OF PROBLEM

To date there is limited scholarly work focusing on how the practice of nurses is regulated and which model of regulation is best suited to pursuing the commonly advanced aims of ensuring competent practise and thereby protection of the public. Indeed, the material that is available and specific to nursing has tended to be based on rather narrowly focused data, gathered some time ago, through workshop activity involving senior leaders from both professional associations and nurses who work in ministries of health (ICN, 1960; ICN 1969; ICN, 1985).

Recently the model most frequently advocated for by the profession, self-regulation, has been the focus of considerable criticism (National Consumer Council, 1999; Salter, 2004; World Health Organization 2006). Added to this is the fact that in many parts of the world the context of health care delivery is changing rapidly and the forces impacting on the profession are such that the time would appear right to systematically examine how these forces shape the regulatory environment and which approach or approaches are best suited to today's challenges. Globalisation, with increased migration of both nurses and patients, is adding further urgency to the need to gain a comparative understanding of the regulatory environment across countries. Exploring professional regulation from differing perspectives has the potential to enrich our understanding of the topic and offer insights as to how we might regulate the profession in what is a more complex and rapidly changing global practice environment (Benton and Morrison, 2009a).

### HYTOTHESIS

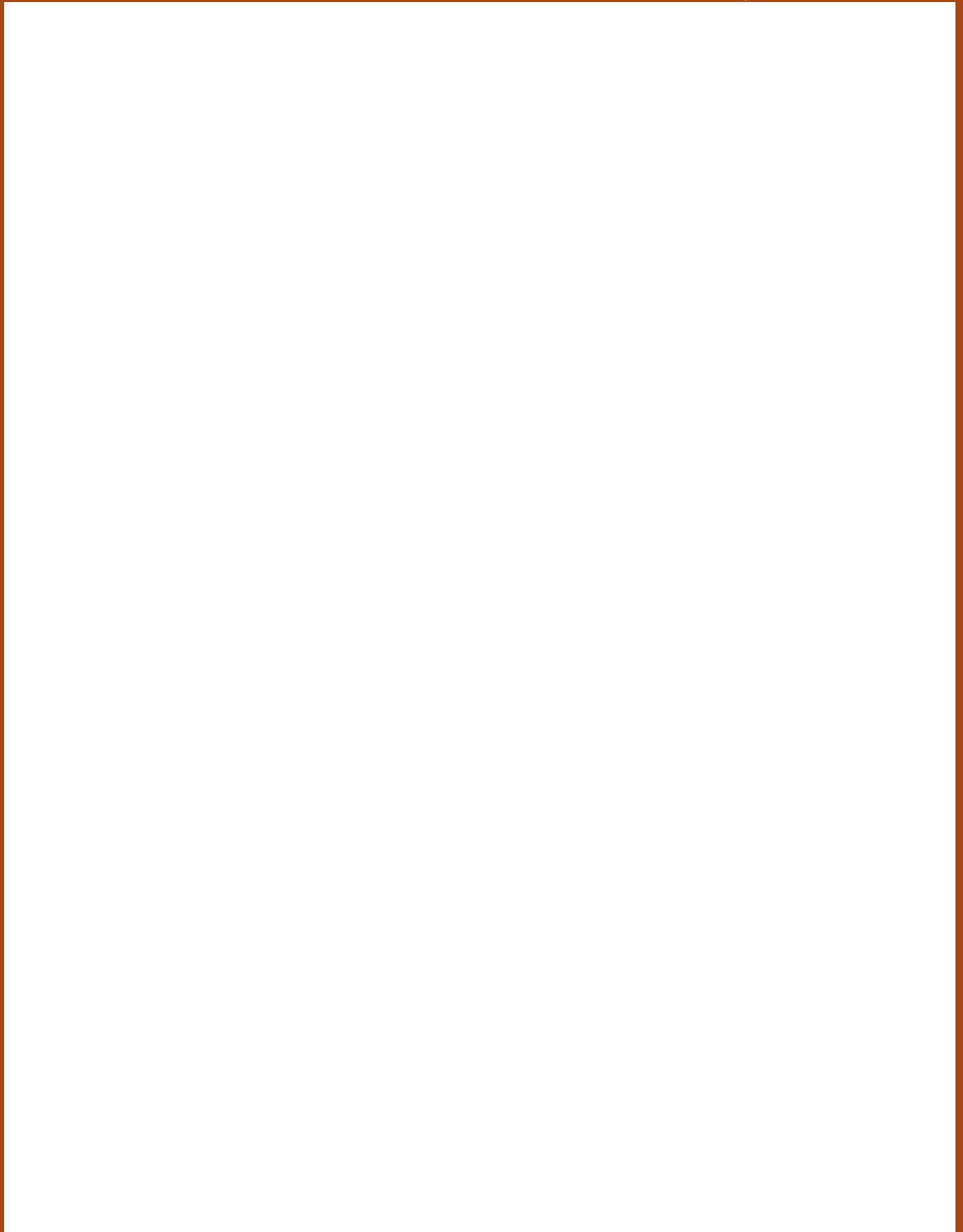
By analysing a random stratified sample of current jurisdictional nurse legislation, it is:

- possible to identify key features of current nursing legislation so as to
- develop a set of measures to judge contemporary regulatory body performance, and
- determine an optimum regulatory model and associated administrative approach congruent with a high performance regulatory body.

### RESEARCH OBJECTIVES

- Analyse the socio-economic, demographic and health systems context of a random stratified sample of jurisdictions;
- Develop a lexicon of key terms used in a random stratified sample of legislation drawn from diverse jurisdictions;

- Critique the key features of current nurse legislation associated with diverse professional regulatory models;
- Analyse how contemporary trends facing the profession interact with diverse models of professional regulation;
- Generate a set of measures used to judge regulatory body performance.
- Critically elaborate a contemporary definition of professional nurse regulation; and
- Determine an optimum regulatory model and associated administrative arrangements best suited to the attainment of high-performance regulatory body functioning.







## CHAPTER 3 METHODS

### RESEARCH PARADIGM

It has been noted that the academic literature on nurse regulation is extremely limited and that which is available has methodological weaknesses and a particular bias (informed from the perspectives of senior nurse leaders normally based within an individual country). Within the context of increased globalisation and a wide range of approaches to the regulation of the nursing profession, a mixed method approach that utilises both qualitative and quantitative techniques are used to guide the design and conduct of this study.

In particular, Bazeley (2008) identified that mixed method approaches are especially useful when one or more of the following criteria is (are) being pursued:

1. Complementary data are sought, either qualitative data to enhance understanding of quantitative findings or (as is the case in this study) quantitative data to help generalize qualitative insights;
2. Different methods are appropriate for different elements of the project, with each contributing to an overall picture;
3. Data sought from multiple independent sources, to offset or counteract biases from each method;
4. The goal of an evaluative study is to understand both processes; and
5. One method provides data that are useful in preparation for the next.

Based on the research objectives for this study and the above criteria, it is evident that the mixed method approach (O'Cathain et al, 2007; Bazeley, 2008; Onwuegbuzie and Leech, 2006) is particularly well suited to addressing the research questions posed, specifically, a qualitative exploration of existing legislation and associated models to identify key features followed by a quantitative examination of expert opinion to describe an optimum model to be pursued. Neither quantitative nor qualitative methods are sufficient in themselves to fully explore the objectives set for this research but, when used in combination, quantitative and qualitative methods complement each other and create the conditions for a more complete analysis (Green et al, 1989; Tashakkori and Teddie, 1998). By using a mixed method design it is possible to gather and analyse data to answer the research questions through gathering textual and numerical data that can be sequentially and/or concurrently reviewed and explored (Creswell, 2003; Tashakkori and Teddie, 1998).

### DATOS COLLECTION METHODS

This research will use a combination of documentary analysis and a Delphi questionnaire approach.

Specifically:

1. Documentary sources in the form of extant legislation pertaining to the regulation of nurses representing diverse regulatory models will be identified, retrieved and analysed.
2. A random stratified diverse sample of key leaders with knowledge of differing nurse regulatory models at national/jurisdictional level will participate in a three-round Delphi study.

### **Documentary Analysis**

Documentary analysis is method that provides a rigorous and systematic analysis of written material that contains information about the topic of interest (Baily, 1994). This approach is described by Payne and Payne (2004) as a technique that categorises, investigates, interprets and identifies the content of physical sources – most commonly written documents that can be either public or private sources.

In the case of this study, the source documents for the initial comparative analysis are acts of parliament (or equivalent governmental body) – legal documents that are primary sources. Copies will be obtained from official governmental sources and translated, when necessary, into English for analysis.

In analyzing documentary sources, Scott (1990) highlighted that a number of quality control steps need to be considered so as to provide a sound basis for research inquiry and these steps include – *authenticity*, *credibility*, *representativeness* and *meaning*.

Firstly, by obtaining original documents from governmental sources, the *authenticity* (genuine, reliable and of a dependable origin) of the documents can be assured.

Second, since all acts of parliament go through various stages of development and review before they are agreed and signed into law and none of these documents were generated for the explicit purpose of addressing the stated research questions, *credibility* (free from error and distortion) is also secure.

Third, for the documents to meet the *representativeness* criteria, they need to be typical of their type. Although the format of acts of parliament can change over time they are drafted in a manner to comply with the legal statutes of the country concerned and, although the content of the various acts produced by a particular jurisdiction will reflect the specific subject matter, the legal style follows a standard approach and structure. The source documents are therefore deemed to meet the criteria of *representativeness*.

The final criteria, *meaning* (refers to whether the meaning is clear and comprehensible), is more problematic, however. Since the study entails obtaining documents

from multiple countries, the primary source documents will be published in the legal style and official language of the country concerned. Although the researcher does read two languages (English and Spanish) other languages are unknown to the researcher. Accordingly, source documents will be translated by professional translators into the researcher's mother tongue (English) and then analyzed from the translated text. In addition, the researcher will also, should the need arise; contact the relevant registrar (head of the regulatory body with the duty to interpret the legislation in that jurisdiction) or equivalent official to clarify any points in the professional translations of the documents that lack clarity. A second potential problem relating to the criteria of *meaning* is the issue of amendments to the original acts of parliament and subsidiary legislation and/or rules. These can be difficult to integrate fully into the original text of the act and great care is needed to ensure the criteria of *meaning* is not compromised by omission of any such additional materials.

### **The Analytical Approach in Relation to Documentary Analysis**

The documentary analysis of the legislation was conducted using constant comparison method with a deductive approach to coding as described by Strauss and Corbin (1998). In the analysis the starting points for the codes used were those developed by Benton and Morrison (2009b). The researcher then added to these codes through inductive coding. Constant comparison is seen as the method of choice when looking for overarching issues (Leech and Onwuegbuzie, 2007). To facilitate the identification of previously unidentified codes, the technique of word counting was used which can, according to Miles and Huberman (1994), assist in maintaining analytical integrity through providing an audit trail to facilitate readers in evaluating the legitimacy of the analysis (Lincoln and Guba, 1995; Onwuegbuzie and Leech, 2007).

To assist in data analysis NVIVO 9, a highly flexible computer assisted qualitative data software package was used that is capable of organising, managing and coding qualitative data in an efficient manner (Bazeley, 2010; Edhlund, 2011). In addition to some sophisticated analytical tools and the capability for using audio, video and photographic sources, the package fully supports text editing, note, memo and annotation generation, coding, text retrieval and node, set and attribute manipulation. The package is ideally suited to supporting both the constant comparison and word count methods which accommodates data in a variety of formats and made importing of legislative documents relatively easy. The software encourages the researcher to utilise a series of folders to help structure the data. Memos are recorded separately from source data but linked to the source documents as required.

To protect against data loss the researcher enabled the automatic back-up facility to record an 'image' of the project (term given to the analysis by NVIVO) every 15 minutes and in addition at the end of each analytical session saved a copy to the hard drive on the researcher's laptop that was then automatically backed up to his cloud directory using the MobileMe iDisk service.

**The Legislation for the Documentary Analysis**

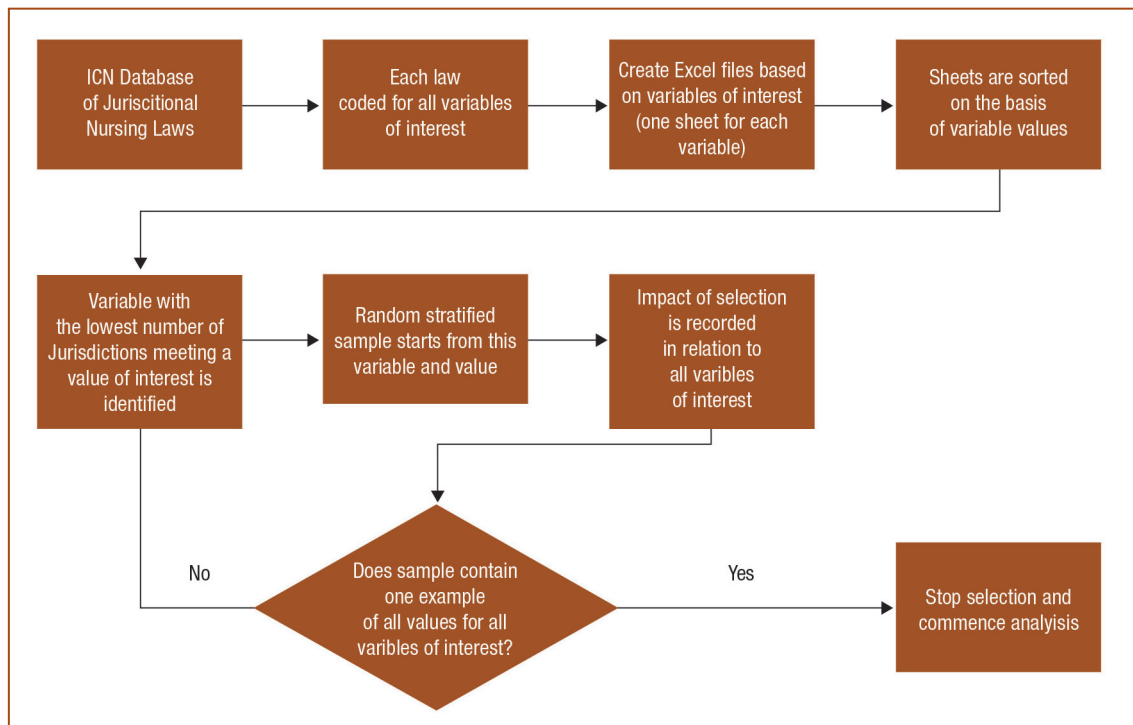
Based on the description of the various models of nurse regulation provided in the introductory chapter, a random-stratified sample of countries/jurisdictions was selected to provide a diverse set of source materials. This diverse mix added richness to the analysis and is congruent with the aims of the Policy Delphi approach that followed. Minogue (2005) highlighted, when comparing international experiences in regulatory reform, that scholars should be cognizant of the fact that what works well in one place, appearing entirely logical, may look quite different in other contexts and therefore conclusions and policy development advice needs to have due regard to the legal, cultural and social realities of each situation. Since one of the aims of this study is to identify and describe the optimum governance arrangements best suited to the delivery of contemporary and future regulatory practice, the selection of countries/jurisdiction drew upon different models, geographies, legislative structures and legal traditions.

Accordingly, the random stratified sample of countries/jurisdictions was selected to maximize coverage of different models in terms of these perspectives. Additionally, it has been identified that the stage of economic development (Ogus, 2002; Shleifer, 2005; Jordana & Levi-Faur, 2010) can have an impact on regulatory systems. This final variation was a little more challenging to pursue as often regulatory systems are only in embryonic stages in the lowest income countries.

**Selecting the Sample of Legislation**

To select the sample of legislation a random stratified sample of legislation was drawn from the ICN database of nurse legislation. All legislation was first coded according to the variables of interest (geographic region of the world, GNI category, legal tradition, model of nurse regulation, and administrative approach). Each variable of interest had a number of possible values for example, Legal tradition included – Civil, Common and Islamic Law. Accordingly, a series of excel files, one for each of the variables of interest, and sorted by the respective possible values was created. These were then used to select, by use of the random function included as part of the Microsoft Excel 2010 package, legislation for inclusion in the analysis. Since every law was coded against all variables then as soon as a law was selected to fulfil one of the variables of interest this would have an impact on all other variables. Hence the sequence of selection was determined on the basis of the least represented value in the variables of interest. Figure 6 provides a schematic representation of the selection process.

Figure 6. Stratified random selection of legislation



## Delphi Analysis

The Delphi approach is a method that was developed as part of studies conducted during the Cold War to help predict the potential impact of technology in warfare (Dalkey and Helmer, 1963). It is now used extensively and is an accepted method of gathering data from defined experts who, through an iterative cycle of questionnaires, generate, anonymously, coherence and clarity on various aspects of the topic under investigation (Hsu and Sanford, 2007; Skulmoski et.al. 2007).

Normally, the Delphi approach uses two to four rounds of questionnaires (Polit and Beck, 2008). Linstone and Turoff (2002) contend that for most research studies a three round design is sufficient to attain stable results with further rounds running the risk of being viewed as excessive by panellists resulting in lower response rates. Accordingly, a three round design was used in this study that provided at the end of first and second rounds collated and anonymised feedback to the experts who then provide further responses to the progressively more specific questions (Linstone and Turoff, 2002). The Delphi method utilises both qualitative and quantitative methods and is viewed according to Sprenkle and Moon (1996) as the “most clear-cut mixed method”.

This approach has a number of advantages over other methods of gathering expert opinion such as the ability to provide anonymity to participants; a controlled and structured feedback process; and the use of a variety of relatively simple statistical meas-

ures to allow interpretation of the results in real time by the participating experts (Dalkey, 1972; Ludlow, 2002; Okoli and Pawlowski, 2004; Hsu and Sanford 2007). The advantages of this technique are said to mitigate against any one individual dominating the group and also avoid conformity through peer pressure (Dalkey, 1972). The researcher would also add that in the case of this study where experts are drawn from around the world and where English is not always the panellist's mother tongue that the technique provides the panellists with additional time to reflect and consider the issues.

Turoff (2002) identified that there are many approaches to the ways that the Delphi technique can be designed and implemented. In particular, he highlighted that the 'Policy Delphi', unlike the early applications of the technique that used homogenous groups of experts, uses a heterogeneous group that seeks to:

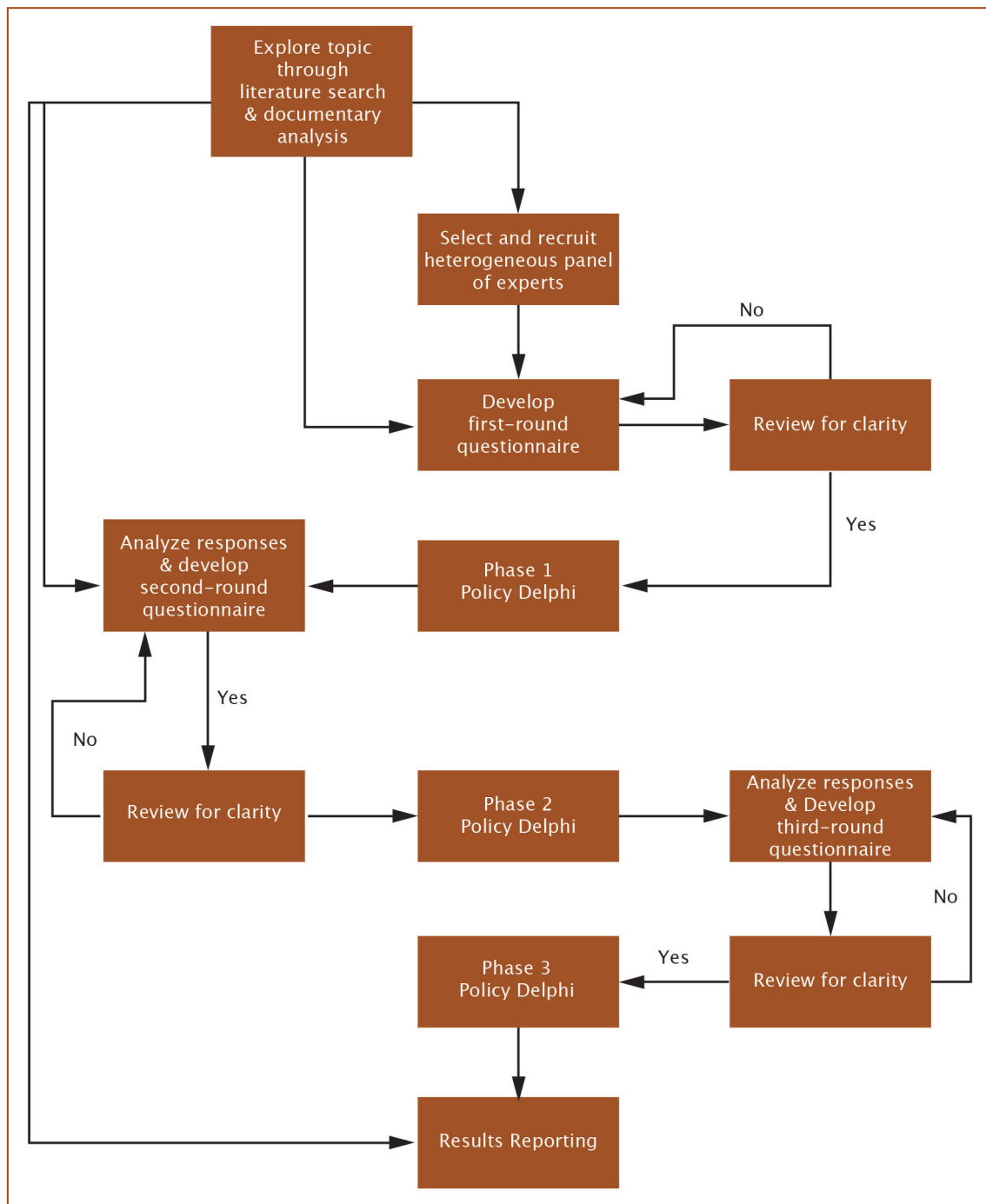
***"...generate the strongest possible opposing views for the potential resolution of major policy issues."***

Rayens and Hahn (2000) also noted that the Policy Delphi is particularly well suited to identifying divergence and consensus in highly complex issues. To increase the likelihood of securing a thorough exploration of the topic within the minimum number of rounds a number of pre-requisites were necessary in addition to the careful selection of experts, representing as many of the diverse positions under investigation. According to Slocum (2005) to increase the likelihood of achieving a robust exploration of the topic the researcher should plan from the outset to address the following:

- Careful formulation of the issues;
- Clarity in the options to be considered;
- Determination of initial positions on the issues – which are the ones everyone already agrees upon and which are the unimportant ones to be discarded? Which are the ones where agreement could be secured?
- Exploration and identification for the reasons and assumptions underpinning any disagreements of views;
- Evaluation of underlying reasons in a neutral manner, separating out the various positions and how they compare; and
- Being prepared to re-evaluate the options based on emergent evidence and the various positions that are developed.

To this end the Policy Delphi approach followed is set out schematically in Figure 6. It should be noted that at each stage of the Delphi questionnaire design a check for clarity (both grammatical and content) has been inserted. This check involved utilising a small group of experts who are both familiar with professional regulation and the methodology being used. For transparency, a list of the names and positions of the group are included in Annex 1. Suggestions made by these method and content experts were

Figure 7. Schematic Representation of Policy Delphi Process



considered carefully. Where necessary, refinements to the instruments were made prior to their distribution with the identified sample (Annex 2).

In addition to the literature examined in the introduction, the findings derived through the documentary analysis of legislation were also used to assist in the development of the questionnaires in both round one and round two of the Delphi study.

**The Panel of Experts**

A random stratified sample of experts was recruited to form the Policy Delphi expert group (List of names and countries of origin are included in Annex 2). They were drawn from different parts of the world, from countries that have differing legal traditions and use a variety of approaches to the administration of the legislation thereby providing good coverage of as many of the differing models of regulation. In addition, differing perspectives were sought namely: those who are service based – nurse directors; those that are in charge of the regulatory bodies – registrars; educators of nurses; leaders from national nursing associations; and lay views – patient representatives and those from other disciplines.

**Selecting the Experts**

The International Council of Nurses keeps up-to-date lists of individuals with a range of interests. Included in these lists are, chief executives and chairpersons of nurse regulatory bodies, directors of nursing, directors and deans of nurse education, presidents and chief executives of national nursing associations, and non-nurses that have been involved in regulation conferences. All individuals that had participated in a regulatory event during the period 2009 to 2011 were identified (262 individuals). Regulatory events included credentialing and regulatory forums, regulation conferences and previous regulatory research studies.

Boulkedid et al. (2011) conducted a meta-analysis of studies using the Delphi approach based on 80 different studies. One of the variables of interest in their analysis was expert panel size. Of the 80 studies reviewed 76 of these reported panel size which varied considerably (3 to 418), with a median of 17 and a Quartile 1 to Quartile 3 range of 11 to 31 experts. Despite this finding the authors recommended that the size of the panel should be as large as possible. Akins et al, (2005) specifically studied panel size and concluded that there is no agreement on what constitutes a small or large panel or indeed the number required to achieve stable results. Nevertheless Akins et al, (2005) were able to demonstrate that stable results could be obtained with a relatively small number of experts – 23. Due to the lack of any definitive guidance on expert panel size other than it consist of at least 23 experts and ideally as large as possible the decision was take to invite 75 experts. This number was based on the fact that Gordon (1994) reported that Delphi studies typically attain a 40 to 75% response rate. Hence through inviting 75 experts at least 30 responses were anticipated.

The selection process was similar to that used for the selection of legislation. However, in the case of the selection of experts the following variables of interest were considered – background (regulatory body, national nursing association, educator, service based and lay), gender, regulatory model of jurisdiction, legal tradition of jurisdiction, economic status of jurisdiction as measured by GNI World Bank banding,



Each of the 262 individuals identified were coded against all variables of interest and from this group a random stratified sample of 75 were selected. Selection required a series of excel files to be created, one for each of the variables of interest, and then sorted by the respective possible values. Selected experts were identified by use of the random function included as part of the Microsoft Excel 2010 package. A similar algorithm to that used in selection of the legislation was used. Namely the variable with the lowest number of experts allocated to a value of interest was used to determine the list of names from which the next random stratified choice was made. Choices were made until 75 experts had been identified.

### **Securing the Commitment of the Experts**

Turoff and Hiltz (1996) contend that panellists are motivated to participate actively if they feel they will obtain value from the experience hence great care was taken in developing the initial letter of contact and all subsequent communication. Furthermore, Adler and Ziglio (1996) recommend that in selecting experts four criteria should be applied – namely:

- They should have the necessary knowledge and expertise relating to the topic under investigation;
- They have the capacity and are willing to participate;
- They have sufficient time and availability to meet the planned schedule; and
- They have effective communication skills.

The researcher included these points in the initial request letter to potential panel experts as set out in Annex 3. Hsu and Sanford (2007) highlight attrition as a particular risk of this method; accordingly, the researcher also alerted the panellists that clear timescales for return of completed instruments would be given at all stages and that reminders would be sent out to panellists a few days before the due date if they had not already completed and returned the instrument.

### **Panellist Anonymity**

Turoff and Hiltz (1996) stress the importance of anonymity by stating that this approach results in:

- Individuals not having to commit themselves to an initial expression of an idea that may not turn out to be suitable.
- If an idea turns out to be unsuitable, no one loses face from having been the individual to introduce it.
- Persons of high status are free to produce questionable ideas.
- Making it easier for a panellist to reject an idea or change one's mind about it.
- Votes being more frequently changed when the identity of a given voter is not available to the group.

- Reducing the risk of an idea or concept being viewed as biased simply by virtue of the panellist who introduced it.

Panellists were given an assurance that their individual responses and views would only be shared or disclosed with other panellists in an unidentifiable format both during the various rounds of the Delphi and in the write-up of this study. They were however notified, in the letter soliciting their agreement to participate – Annex 3, that their names would be listed as an Annex to the thesis.

### Designing the Delphi Instruments

In a Delphi study it is not possible to present the instruments for the various phases from the outset as these are developed as an integral part of the research. However, having said this, copies of the final instruments used in each of the three rounds can be found in Annexes, 4, 5, and 6. As can be seen from these instruments, mixtures of qualitative and quantitative data were solicited. Also it is important to note that certain decisions on format, in terms of judging the items and providing feedback to the panellists, needed to be agreed ahead of time. In the case of this study, a four point Likert scale design was used to solicit the views of the various experts. A four point Likert scale is particularly suited to the 'Policy Delphi' approach as it forces respondents to take a definitive "for" or "against" position (Turoff, 2002). As Turoff (2002) noted '***the lack of a neutral point promotes a debate which is in line with developing pros and cons***' thereby offering a richer and more comprehensive exploration of the topic.

### Criteria used to Assess the Questions Posed in the Instruments

A number of researchers have identified that soliciting the views of panellists on the desirability, feasibility, importance and confidence of the items offers valuable insights and through systematic analysis a means of deciding which items are best suited to address the research questions (Adler and Ziglio, 1996; Turoff, 2002; Jillson, 2002).

In relation to quantitative data, according to Hasson et al. (2000), Rayens and Hahn (2000) and Onwuegbuzie and Leech (2006), Delphi studies tend to use measures of central tendency such as mean, mode and median along with measures of dispersion including standard deviations and inter-quartile ranges. These techniques avoid overly complicated statistical measures and are usually familiar to most panellists and therefore are ideally suited to providing feedback on the collective position of the panellists' views on the various questions. Hill and Fowles, (1975) and Hasson et al. (2000) both concur that on the whole median scores are used when Likert type scales are employed and that using inter-quartile ranges offers panellists the necessary information on variability and degree of consensus.

In relation to the final two dimensions, *Continuum of Professional Nurse Regulation* and *Administrative Approaches*, since these offer independent categorical data rather than a Likert Scale, the results were reported back in the third round as the percentage of respondents who opted for a particular category.

### Feedback to Panellists at the end of Rounds One and Two

Due to the nature of the questions posed in round one (see Annex 4) qualitative feedback including a summary of anonymised responses was provided in response to the two issues explored:

- Examining the current ICN definition of professional regulation to provide input to its revision; and
- Those features felt to be capable of determining whether a regulatory body is high performing or not – used to develop the items for rounds two and three of the Delphi study.

It is noted from Annex 4 that an operational definition of a high performing regulatory body was defined as one that delivers its core and subsidiary functions in a consistent, effective and efficient manner.

Round two feedback was both quantitative – structured as descriptive statistics on each of the items and qualitative – summarizing additional commentary. In doing this, areas of consensus and areas of divergence were identified. The summary of comments facilitated panellists in exploring areas where there were differences of opinion. Panel members were then encouraged to offer further explanations of the reasons for their views particularly when they differed significantly from the median of the group.

### Defining Consensus

It has been frequently noted that often researchers do not adequately specify what they mean by consensus (Dempsey, et al., 2001; Hanson, et al., 2000; Williams and Webb, 1994). This is viewed as a weakness. Furthermore even when consensus has been specified in a quantitative way the level set may vary considerably. The Oxford English Online Dictionary defines consensus as ‘general agreement’. Keeney et al. (2006). in their review of the Delphi technique. noted that research studies had interpreted the degree of agreement as anything from 51% to 100% and. whilst they did state that a higher percentage may be important should the decision result in life or death outcomes. no convincing rationale for determining a specific percentage was offered.

Since this is a Policy Delphi the critical issue is not the degree of agreement *per se* but understanding what underlies that agreement or indeed disagreement. On this basis it can be argued that a percentage needs to be set that stimulates exploration of underlying reasons. In the Western world many organisations utilise a set of rules of debate known as ‘Robert’s Rules’ (Robert’s Rules Association, 2011). In this schema important policy or constitutional changes need to carry at least a two-thirds majority to pass. Accordingly, since this level sits within the range 51–100% ,67% agreement will be used as one measure to indicate consensus for this study.

In addition to setting a percentage threshold, both Rayens and Hahn (2000) and Raskin (1994) have argued that when using a four point Likert scale using an interquartile

range of 1 or less in conjunction with an agreed percentage can be used to identify consensus. Therefore in this research a threshold of 67% and interquartile range of 1 or less will be used to indicate consensus has been reached.

## TRIANGULATION

Wesley (2009) argues that when considering qualitative data the researcher must apply the same degree of rigour as those dealing with quantitative measures. To enhance the trustworthiness and precision of the study analysis the researcher utilised several different analytical approaches to the qualitative data. Mouton (2001) highlighted that by using triangulation it is possible for the researcher to overcome the deficiency that may flow from a single approach. Firstly, data from the documentary analysis employed method triangulation through use of both of constant comparison and word count techniques (Grix, 2001). NVIVO 9 is particularly suited to supporting this type of analysis as the word count facility is embedded in the software and permits not only the identification of frequently used terms but also their locations both within documents and relative to other terms. Secondly, setting the original analysis aside and commencing the coding of the documents from the start also tested the trustworthiness of the analysis. This enabled the two versions to be compared and contrasted. Although this approach does not provide identical results they did generate substantially similar coding that contained no major differences.

Triangulation is not in itself sufficient to assure trustworthiness and precision in the analysis (Lincoln and Guba, 1985). To better achieve the important goals of trustworthiness and precision a number of pre-defined steps were followed:

- Being explicit in the process used in interpretation of the data; and
- Providing access to source data.

In relation to the first step, being explicit in the process used, Tashakkori and Teddie (2003) have offered a number of specific suggestions so as to make the process of interpretation more transparent. Firstly through, augmenting and objectifying the appearance of any themes by reference to existing literature on the topic as well as indicating the frequency that the theme appears in the text. To this end, the results of the analysis of the legislation were compared and contrasted with existing literature and the structure of already available nursing model acts.

Secondly, themes identified from one data source, such as documentary analysis, can as a feature of the design of this research be 'member-checked' by the key informants, during the Delphi phase of the study. This process helps to verify the precision of the findings. In this case, the key dimensions associated with high performing regulatory bodies were mapped back into the framework generated through the documentary analysis. However, Morse et al. (2002) caution that this process may not always yield agree-

ment since there may be more than one interpretation of the data and therefore diligent exploration of such differences can, rather than detracting from the analysis, augment authenticity as the researcher seeks to explore these differing perspectives.

A further mechanism to strengthen trustworthiness and precision emerges through the approach where the researcher sought to immerse himself in the data so as to ensure 'intense exposure and the development of thick description' (King et al., 1993; Patton, 2002). The use of NVIVO as a tool facilitated multiple explorations and engagement with both raw and coded data. Memos were frequently recorded both during the analysis of the documentary data but also in the form of a diary of reflections as the various phases of the Delphi study took place. The use of memos lends themselves to subsequent audit (Morse and Richards, 2002; Saldana, 2009; Bazeley, 2010).

These multiple and systematic processes were introduced to enhance the development of trustworthy, precise and thick descriptions that offer convincing interpretations of the data (Morse and Richards, 2002).

## **ETHICAL AND INSTITUTIONAL APPROVALS**

Prior to conducting the research, ethical approval was sought and obtained from the University of Complutense's Research Ethics Committee. Informed consent was obtained from each panellist. Responses were kept confidential through allocating a unique identity code that was used throughout the study to label data; all identifying information relating to the panellists was removed. The key to the identity codes was kept separate from the data.

## **LIMITATIONS**

In the three round Delphi quantitative phase of the study there was the potential risk of non-response error – that is, a distortion in the results due to differences between those who participate in and respond to the various cycles of the Delphi data collection (Dillman, 2000). However by examining the responses received against the total sample population across key variables and utilising the Chi Squared test of association it was possible to identify that the risks of this type of error were minimal.

The study has by necessity had to limit the number of jurisdictional examples upon which the various models were explored. This has meant that there were in some cases only a limited number of examples coded to the nodes. Accordingly, this resulted in difficulty in relation to fully exploring differences on the analysis of examples from the full range of attributes particularly in the case of socio-economic development categories since in the lowest income countries regulatory systems are often non-existent or in embryonic stages of establishment and/or development. This gap has limited the depth of the exploratory analysis.

Due to the nature of qualitative research, data obtained from the documentary analysis phase of the study may be subject to different interpretations by different readers. Accordingly, findings need to be considered with a degree of caution. To reduce this risk, in addition to material being reviewed by the research supervisors, the panel of experts was also able to comment on materials as they were developed.

Because of the interpretive nature of qualitative research, the researcher may introduce bias into the analysis of the findings. It is important to note that the researcher has held senior nurse leadership and policy positions in a range of organisations. These positions have covered diverse perspectives, nurse director of a university teaching health system, chief executive of a nurse regulatory body, government regional nurse director (civil servant), nurse director of a metropolitan inner city commissioning authority and international nurse consultant on regulation and education. It is hoped that these diverse experiences assisted in guarding against the possibility of a single biased viewpoint. Nevertheless, the practice of memo writing and reflecting on the process as well as the content of the research was documented and reviewed for any potential evidence of bias.

It is important to note that although the questionnaires used in the Delphi study were available in both English and Spanish not all respondents had one of these languages as their mother tongue. Accordingly, it is important to recognise that the results are the product of responses from individuals who could have misunderstood the question. It was however hoped that the review of questionnaires by the small expert panel helped to clarify and simplify the language used.

Finally, the policy Delphi methodology does not require that all respondents provide answers to each cycle of the study or even all questions contained within a single instrument. This resulted in some missing data although the level of said missing data was remarkably low.







## CHAPTER 4 RESULTS

### OUTLINE OF RESULTS SECTION CONTENT

This section provides details of the documentary analysis of the random stratified sample of legislation and the Delphi study results and is reported sequentially in two parts.

The first part of the results section addresses the first three objectives as set out in the section on Hypothesis and Objectives:

- Analyse the socio-economic, demographic and health systems context of a random stratified sample of jurisdictions;
- Develop a lexicon of key terms used in a random stratified sample of legislation drawn from diverse jurisdictions;
- Critique the key features of current nurse legislation associated with diverse professional regulatory models;

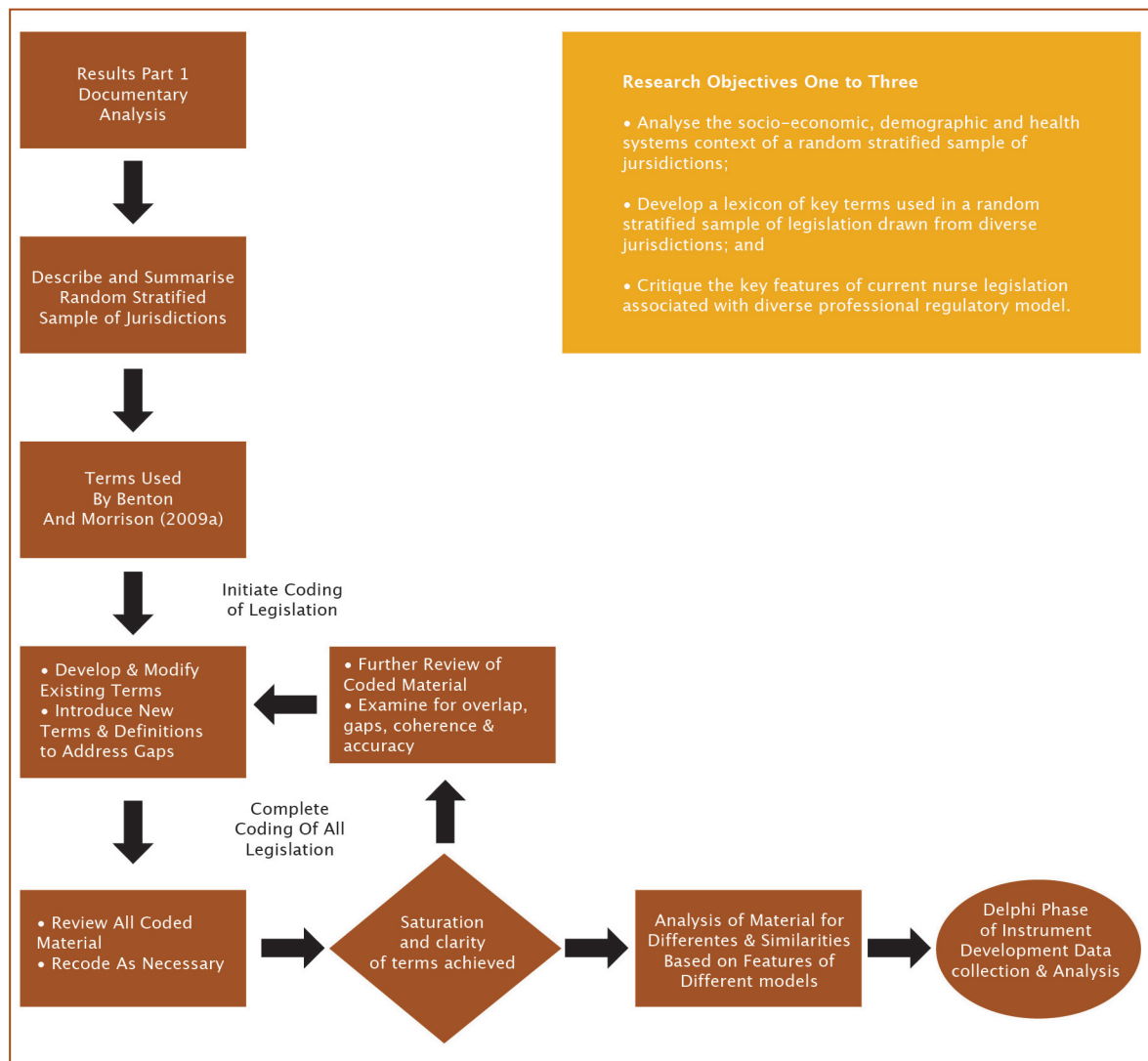
Figure 8 provides a high level summary of the approach followed to address the objectives.

Part one, based on the documentary analysis, starts by reporting basic contextual information relating to each of the jurisdictions selected. This information highlights legal, demographic, economic, professional and socio-political information.

Next, the comprehensive framework of legislative content is presented and a lexicon of the associated terms described. The framework is then analysed on the basis of the key attributes (geographic regions, legal traditions, administrative approaches, regulatory models and economic status).

The second part of the results section reports the findings of the three-round Policy Delphi that address the remaining objectives set for this study.

**Figure 8. Summary of process used to generate Part 1 (documentary analysis) of results addressing research objectives 1–3**



## **RANDOM STRATIFIED SAMPLE OF JURISDICTIONS FOR DOCUMENTARY ANALYSIS**

Jurisdictions were selected to cover as wide a range of examples of both the continuum of regulatory models and the approaches to implementing the legislation.

In addition, jurisdictions were drawn from around the world representing differing levels of economic development as well as differing legal traditions.

These principle dimensions, continuum of regulatory models, approaches to implementing the legislation, geography, levels of economic development and differing legal traditions are used to explore, compare and contrast the themes identified during the documentary analysis.

All demographic, social and economic data were obtained from the current edition of the CIA World Fact book (<https://www.cia.gov/library/publications/the-world-factbook/> Accessed 14/03/2013) and World Health Organization country profiles (<http://www.who.int> Accessed 14/03/2013) or in the case of sub-national jurisdiction state-based official websites.

## Australia

Australia is the smallest continent and is located in South Pacific (Figure 9). It has a population of nearly 22 million people and has a life expectancy of 81.81 years and median age of 37.7 years. Only 1% of the population is aboriginal with 92% white and 7% Asians.

Australia is a federal parliamentary democracy and Commonwealth realm and has six states and two territories. Australia uses a common law system based on the English model. Australia is a high-income country and has extensive mineral wealth and is the world's largest net exporter of coal accounting for 29% of world exports.

Health expenditure accounts for 8.5% of GDP. The health care system is a mixed private and public system but is predominantly a public-based model.

There has been a significant change in the health professional regulatory system away from a range of parallel and independent state-based acts to a multi-disciplinary federal arrangement brought about through enactment of a template act in all jurisdictions with individual discipline-based Federal boards and shared services at state level.



**Figure 9. Map and Flag of Australia**

## Brazil – The Federal Republic of Brazil

Covering a substantial proportion of South America, Brazil has both the North and South Atlantic oceans to the east and ten other Latin American countries bordering it to the north and west (Figure 10). Brazil has a population of 203 million, a life expectancy of 72.53 and median age of 29.3 years.

The Federal Republic of Brazil has 26 states and operates a civil law legal system, which is governed by the Brazilian civil law code enacted in 2002. Brazil is classified as an upper middle-income economy and has well-developed agricultural, mining, manufacturing, and service sectors.



Figure 10. Map and Flag of Brazil

Health expenditure represents 7.9% of GDP. Brazil has made rapid progress in developing primary care-based access to services. Secondary and tertiary services utilise a mixed public- and private-based model.

There are just over 186,000 nurses on the federal register of nurses who are regulated using a supervised division of powers-based model, established in 1973, with powers being divided between the Federal Council and the 26 regional colleges.

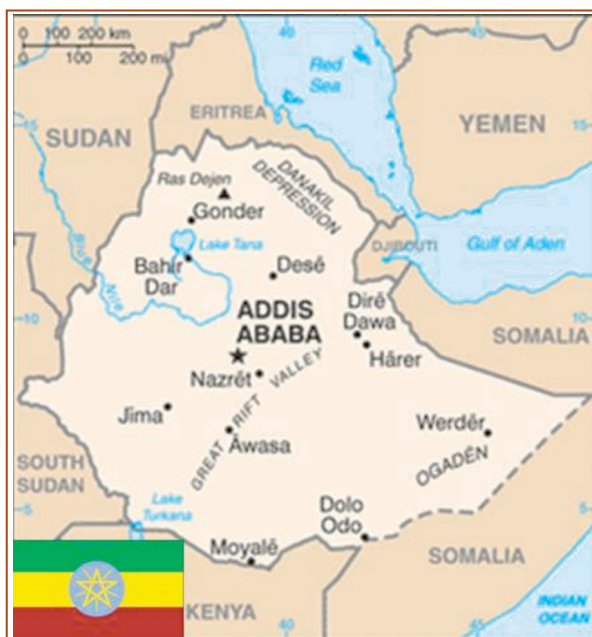
## Ethiopia

Located in Eastern Africa, west of Eritrea and Somalia, the country is land-locked due to the annexation of what is now Eritrea (Figure 11). Ethiopia has a population of nearly 91 million, a life expectancy of 56.19 years, a median age of only 16.8 years and is the oldest independent country in Africa.

Ethiopia is a federal democratic republic, has nine ethnically based states and two self-governing administrations and operates a legal system based upon civil law. Ethiopia is a low-income country and has small reserves of gold, platinum, copper, potash and natural gas and generates hydro power.

Health expenditure is very low and represents only 3.6% of GDP. Health care is delivered through a mixture of public, faith and aid based services. Ethiopia experiences a heavy burden of disease mainly attributed to communicable infectious diseases and nutritional deficiencies.

The regulatory model is a supervised self-regulatory body based on a multi-disciplinary single umbrella board model and was established in 2002.



**Figure 11. Map and Flag of Ethiopia**

## India – Republic of India

The second most populous nation in the world, India dominates the South Asian continent with the Arabian Sea to the west, the Bay of Bengal to the east and a complex geography of borders to the north (Figure 12). India has a population of 1.19 billion, a life expectancy of 66.8 and a media age of 26.2 years.

The Republic of India has 28 states and 7 territories and a legal system based upon common law system modelled on the English system but with separate personal law codes applying to Muslims, Christians and Hindus. India has a lower middle-income economy and has a rapidly developing service sector as well as the more traditional agricultural sector.

Health expenditure represents 4.2% of GDP. The health systems are diverse and are mainly a responsibility of the states and territories but the private sector is large and poorly regulated. The Nursing Council Act does not have provision for a live federal register (1947) so it is not known how many nurses there are in India. Nurses are regulated by a delegated self-regulation division of powers model with the powers at state level varying from one state to the next.



Figure 12. Map and Flag of India



## Iran – The Islamic Republic of Iran

Located in the Middle East, Iran is bordered by the Caspian Sea to the north and the Gulfs of Persia and Oman to the south; Turkmenistan, Afghanistan and Pakistan lie to the east; Armenia and Azerbaijan to the north west; and Iraq to the west (Figure 13). Iran became an Islamic republic in 1979.

Iran has a theocratic system of government with ultimate political authority vested in the learned religious scholar referred to as the Supreme Leader. Iran has a population of 78 million, a life expectancy of 70.06 and median age of 26.8 years; 98% of the population is Muslim. The legal system is an Islamic legal system based on Shari law. Iran is an upper middle-income country with petroleum, natural gas and mineral resources.

Health expenditure represents 4.2% of GDP. Iranians receive basic health care and have access to subsidised prescription drugs and immunisations. A network of public clinics offers care at low cost. The Ministry of Health and Medical Education operates general and specialty hospitals. There are more than 91,000 nurses in Iran, regulated via the Iranian Nurses Organisation using a devolved self-regulatory body model established in 2002.



Figure 13. Map and Flag of Iran



Jamaica has a population of 2.8 million, life expectancy of 73.45 years and median age of 24.2 years. The majority of the population is Christian with 62.5% being Protestant.

The Jamaican legal system is based on common law and follows the English legal system. Jamaica is a lower middle-income country and has an economy based on agriculture, some mining and tourism.

Jamaica was one of the first countries in the world to establish a national health system and spends 5.1% of its GDP on health.

There are approximately 4,300 nurses on the island and they are regulated through a devolved self-regulatory model via the Nursing Council created as a result of the 1966 Nurses and Midwives Act. Jamaica is part of the CARICOM community which has developed some common frameworks to facilitate mobility of nurses.



### Figure 14. Map and Flag of Jamaica

### Jordan – The Hashemite Kingdom of Jordan

Located in the Middle East with Syria to the north, Iraq to the north east, Saudi Arabia to the south and east and Israel to the west, Jordan is mainly land-locked arid desert with only 26km of coastline on the Arabian Sea (Figure 15). It is a constitutional monarchy with a population of 6.5 million.

The life expectancy in Jordan is 80.05 years with a median population age of 22.1 years. The majority of the population is Sunni Muslims (92%) and 6% are Christian. The legal system is a mixed model of civil law and Islamic religious law.

Jordan is categorised as an upper middle-income economy, has few natural resources and scarce fresh water supplies. Its health expenditure represents 9.3% of their GDP. The health system provides universal child immunisation and is based on an amalgam of public, private and donor based providers. There are in excess of 16,000 nurses in the country.

Jordan uses a delegated self-regulatory model for its nursing council which along with the current legislation was enacted in 2006.



Figure 15. Map and Flag of Jordan

### Karnataka – State of India

Karnataka lies between 74° and 78° East longitudes and 11° and 18° North latitudes. It is surrounded by Maharashtra and Goa on the north, Andhra Pradesh on the east, and Tamil Nadu and Kerala on the south. On the west, it opens out on the Arabian Sea (Figure 16).

The population of Karnataka state is 59 million with a life expectancy of 65.8 years. Per capita health-spending in Karnataka is marginally higher than the Indian average. The state also has slightly fewer people living below the poverty line than the Indian average.

The health care system has seen significant growth in primary care services over the past 20 years and, like the rest of India, there is significant private-based provision with public services delivering to the poor and offering basic services such as immunisation.

Nurses are regulated by the Karnataka State Nursing Council which was established using a delegated authority self-regulating model by the Karnataka Nurses, Midwives and Health Visitors Act of 1966.



**Figure 16. Map and Flag of Karnataka State, India**

## New Brunswick – Province of Canada

New Brunswick is a bilingual province of Eastern Canada located adjacent to the American border and the Canadian province of Nova Scotia, Prince Edward Island and Quebec (Figure 17). It has a population of more than 730,000.

The health of the population is very similar to most other provinces in Canada and services are delivered by a mixture of public and private providers.

Canada is a federal constitutional monarchy. Under the constitutional framework, legislative authority over regulation of health professions is vested in provincial governments by virtue of section 92(13) of the Constitution Act, 1867. The legal system is based upon common law.

The Nurses Association of New Brunswick is established using an almost pure self-regulatory model through the Nurses Act of 1984, which has been updated on several occasions. There are nearly 9,000 registered nurses in New Brunswick.



**Figure 17. Map and Flag of New Brunswick, Canada**

## New Zealand

Consisting of two large islands and many smaller ones, New Zealand is located in the Southern Pacific Ocean to the south east of Australia (Figure 18). The population of New Zealand is 4.3 million with 90% of the population living in cities. The life expectancy in New Zealand is 80.59 years with a median population age of 37 years.

New Zealand is a parliamentary democracy and commonwealth realm. It has a common law system, based on the English model, with special legislation and land courts for the Maori.

New Zealand is categorised as a high-income economy and has natural gas and various mineral deposits. New Zealand has a comprehensive publically provided national health system with a relatively small private sector.

New Zealand has a multi-disciplinary with individual board-based umbrella model of regulation delivered by the Nursing Council as set out in the Health Practitioners Competence Assurance Act of 2003.



**Figure 18. Map and Flag of New Zealand**

## Norway

Located in Northern Europe Norway has a long coastline to the west that faces the North Sea and the Northern Atlantic Ocean. To the east lies Sweden, in the north east Finland and Russia and across the Skagerrak sound Denmark to the south (Figure 19). Norway is a constitutional hereditary monarchy with a population of 4.7 million.

The life expectancy in Norway is 80.2 years with a median population age of 40 years. 94.4% of the population is Norwegian. Norway has a mixed legal system based on civil, common and customary law and has in place a supreme court that can advise on legislative acts.

Norway is categorised as a high-income economy, has significant natural resources – petroleum, natural gas, minerals and extensive fisheries. Its health expenditure represents 9.6% of GDP. The health system is comprehensive and funded via central and local taxes as well as an employer and employee based insurance system. There are more than 67,000 nurses in the country.

Norway has a state based umbrella model of professional regulation operated by the Ministry of Health. The current 1999 legislation was amended in 2002.



Figure 19. Map and Flag of Norway



## Rwanda

Located in Central Africa, Rwanda lies east of Democratic Republic of the Congo, west of Tanzania and with Uganda to the north and Burundi to the south (Figure 20). The population of Rwanda is in excess of 11 million and the life expectancy is 58.02 years and median age of 18.7 years.

The Republic of Rwanda is a multi-party democracy and consists of four provinces. Rwanda has a mixed civil and customary law system. The civil system is based upon both German and Belgian models.

The health care system is based on a mixed model of public, private, faith and aid based providers and health-spend represents 9% of GDP. The government have made rapid progress in terms of delivering a minimum package of care.

Rwanda has relatively recently established a supervised self-regulatory single board model of professional nurse regulation (2008). At present the government is up-grading nursing schools and moving from French to English as the medium of instruction.



**Figure 20. Map and Flag of Rwanda**

## Spain

Composing of the majority of the Iberian Peninsula, Spain is bound by France to the north and Portugal to the west and has access to both the Mediterranean Sea to the east and the Atlantic to the north and west (Figure 21).

The population of Spain is 46.7 million. The life expectancy is 81.17 years with a median population age of 40.5 years. Spain is a parliamentary monarchy and has 17 autonomous communities that have embraced policy autonomy to varying degrees. The legal system is a civil law based model. Spain is categorised as a high-income economy although as a result of the financial crisis in 2008 the level of youth unemployment in particular is high and the ongoing stability of the economy is subject to considerable debate.



Figure 21. Map and Flag of Spain

Health care is provided through a mixture of state, faith and private provision.

Nursing has a long tradition of regulation and can be traced back to 1568 to the founding of the *Obregones Nurses* "Poor Nurses Brothers" by Bernardino de Obregón. Today, Spain has a delegated self-regulatory model which is enacted through the autonomous Spanish General Nursing Council whose powers emerge from the various laws and decrees including the Law of the Professional Colleges (Law nº 2/1974) and Royal Decree: 1231 enacted in 2001.



## Taiwan

Taiwan is located off the east coast of China and has the straits of Taiwan to the west, the East China Sea to the north, the South China Sea to the south and the Philippine Sea to the west (Figure 22). The population of Taiwan is just over 23 million and the life expectancy is 78.32 years and a median age of 37.6 years.

Taiwan is a multiparty democracy and has a legal system based upon civil law. Taiwan is a high income country and has an economy based on exports of electronics and machinery.

Significant progress has been made in providing state-based health services to citizens through the National Health Insurance (NHI) programme. This covers the whole population and the costs are shared by the insured, employers and the government

Nursing is regulated by a government-based model through the Ministry of Education in relation to accreditation of programmes and the Ministry of Health in relation to the registration of nurses under the Nurses Act of 1991.



Figure 22. Map and Flag of Taiwan

## Random Stratified Sample of Jurisdictions and Associated Key Dimensions

Table 17. Summary of key dimensions for random stratified sample of jurisdictions

Jurisdiction	Geographic Region	Legal Tradition	Administrative Approach	Regulatory Model	Economic Status
Australia	South Pacific	Common Law	Multi-D with Individual Boards and Shared services	Supervised Self-Regulation	High
Brazil	South America	Civil Law	Division of Powers	Supervised Self-Regulation	Upper Middle
Ethiopia	Africa	Civil Law	Multi-D Single Board Umbrella	Supervised Self-Regulation	Low
India	Asia	Common Law	Division of Powers	Delegated Self-Regulation	Lower Middle
Iran	Middle East	Islamic Law	Single Board	Delegated Self-Regulation	Upper Middle
Jamaica	Caribbean	Common Law	Single Board	Delegated Self-Regulation	Lower Middle
Jordan	Middle East	Mixed Common Islamic	Single Board	Delegated Self-Regulation	Upper Middle
Karnataka	Asia	Common Law	Division of Powers	Delegated Self-Regulation	Lower Middle
New Brunswick	North America	Common Law	Single Board	Pure Self-Regulation	High
New Zealand	South Pacific	Common Law	Multi-D with Individual Boards	Supervised Self-Regulation	High
Norway	Europe	Mixed Civil Common Customary	Regulatory Unit	Government	High
Rwanda	Africa	Mixed Civil Customary	Single Board	Supervised Self-Regulation	Low
Spain	Europe	Civil Law	Single Board	Delegated Self-Regulation	High
Taiwan	Asia	Civil Law	Regulatory Unit	Government	High

Table 17 provides a summary of how each of the jurisdictions selected relate to the key dimensions. The total number of jurisdictions analysed has been limited to a manageable number whilst still offering maximum coverage of the various dimensions. Maximising coverage of the dimensions is congruent with the requirements of informing the development of the instruments for the subsequent Policy Delphi. It is important to note that in relation to the regulatory model it is not possible to cover “no regulation” since by default some form of model needs to be in place before it is possible to obtain the necessary documentary data (Law, Act/Decree). For all other dimensions at least one example of the various options is covered by the random stratified sample.

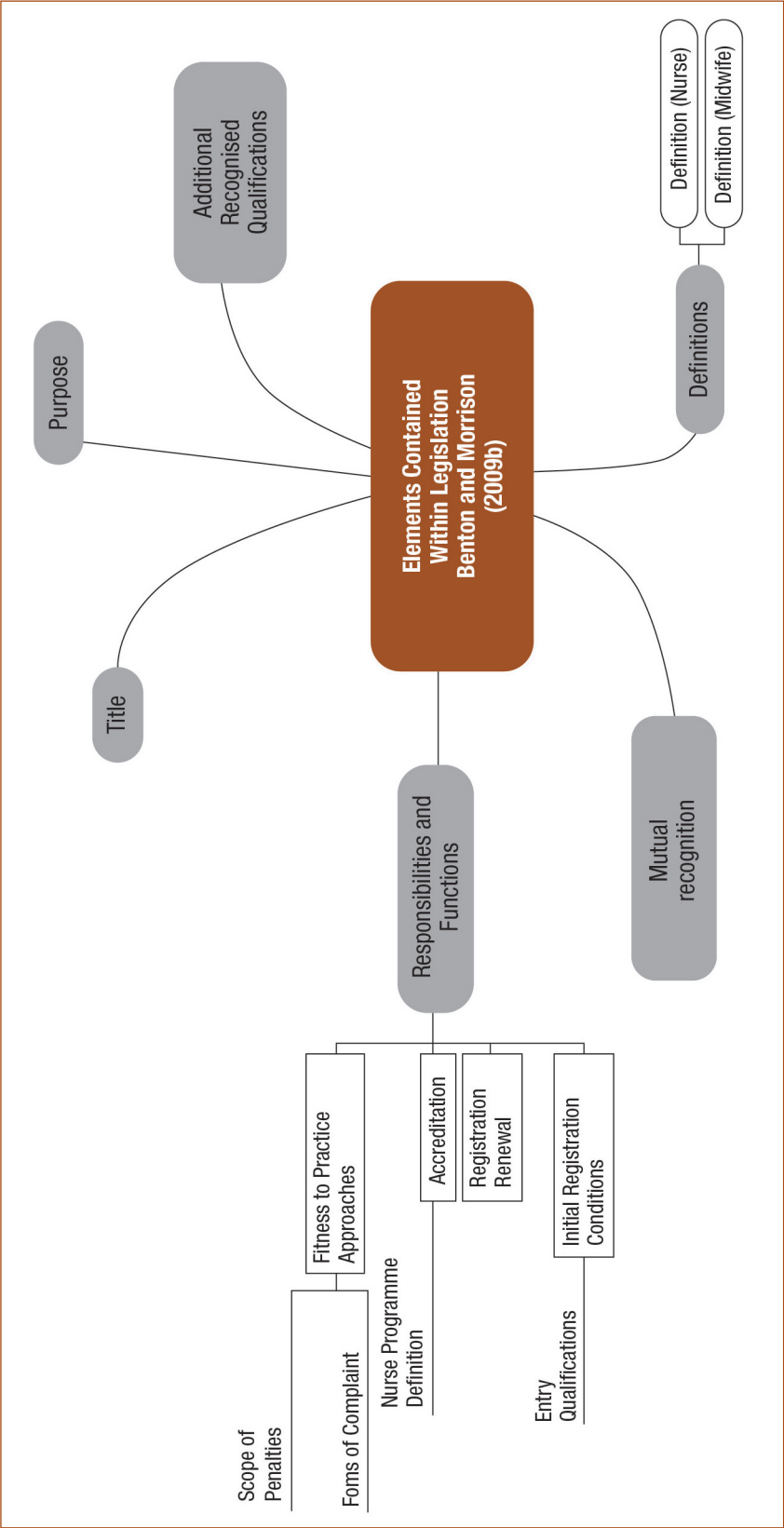
## THE COMPREHENSIVE COMPARATIVE FRAMEWORK

Initial analysis of the random stratified sample of nursing legislation used the themes derived from a previous analysis of legislation reported by Benton and Morrison (2009b). The themes used by Benton and Morrison (2009b) in their analysis of legislation was based on the general structure of the ‘Model Nursing Act’ published by the International Council of Nurses (2007b) and guided by an expert advisory group who recommended restricting the number of themes to those that were most likely to be present in the legislation of many jurisdictions. The study by Benton and Morrison (2009b) therefore did not attempt, unlike in this research, to provide a comprehensive comparative framework based on detailed analysis of a diverse sample of legislation.

Gibbs (2002) describes the initial approach to coding used in this study, based on an existing model, as concept driven or deductive node generation. Figure 23 provides a schematic representation of the initial map based upon the themes used by Benton and Morrison (2009b).

On commencement of concept driven coding the limitations of this initial map and associated nodes quickly emerged as indicated in the reflective methodological memo replicated in Figure 24.

Figure 23. Schematic representation of the initial nodes from the comparative analysis by Benton and Morrison 2009b



**Figure 24. Extract from methodological memos generated during qualitative analysis of source material**

*It is very obvious, having completed an initial reading of all the source material that the current list of themes are too restrictive to adequately code the rich and diverse content present in the legislation. To provide a comprehensive framework of themes will require the current list of nodes to be considerably expanded and in some cases refined.*

*Benton D, 12<sup>th</sup> February 2012:*

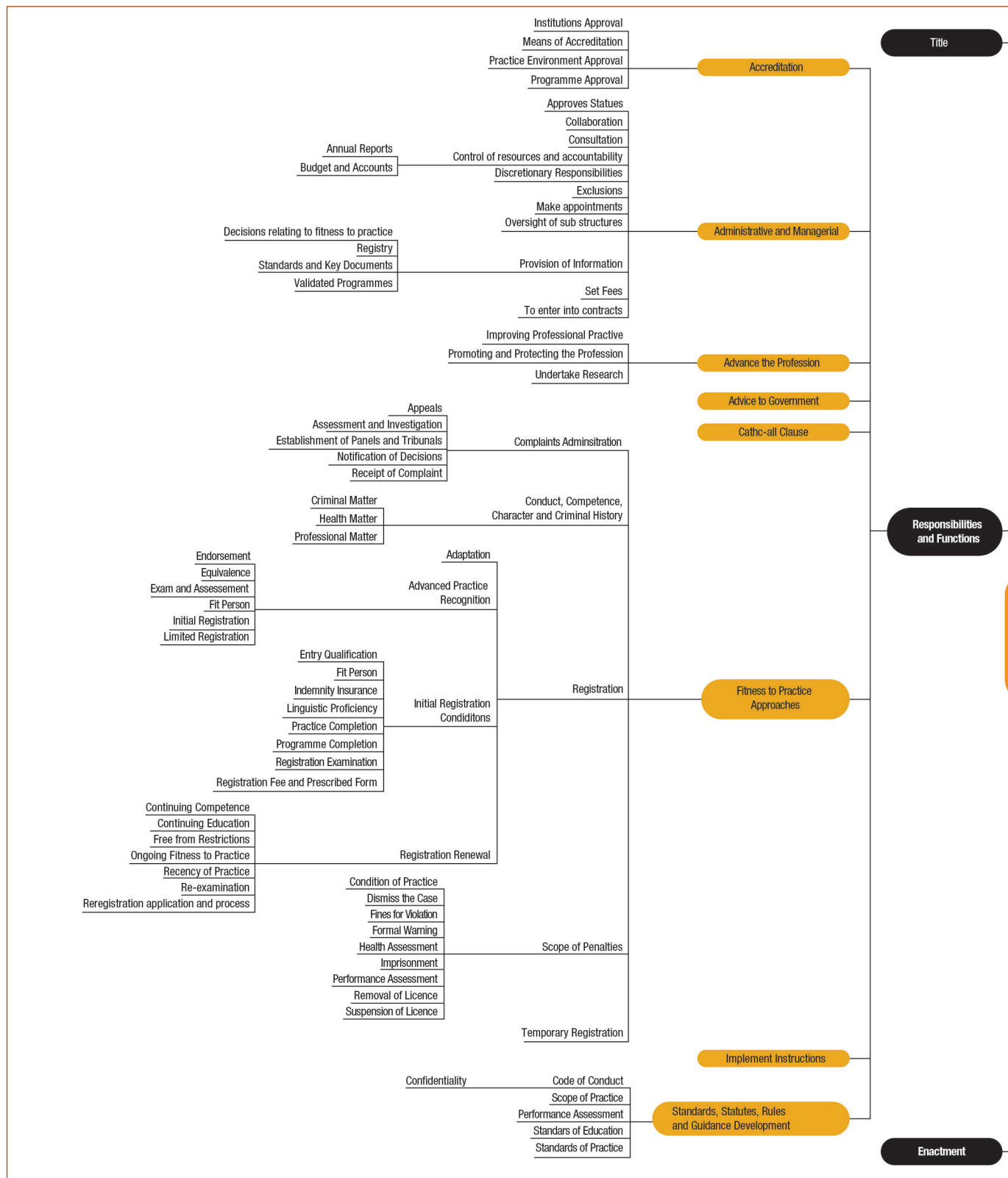
Accordingly, at this point data-driven coding was introduced. In conducting the analysis, the structure and number of nodes evolved and increased considerably as a result of using the data driven or inductive coding approach as described by Tesch (1990) and Patton (2002).

To increase the reliability of the coding, a number of cycles of coding took place (Fereday and Muir-Cochrane, 2006). Source material was reviewed on several occasions and on each cycle the researcher sought to identify any overlaps and gaps. When either a gap or an overlap was discovered the researcher went back to the definition of the node and where appropriate made refinements that would enable the uncoded material to be allocated to the redefined node. If coding were not possible a new node was generated. This systematic and data-driven approach ultimately resulted in Figure 25 providing a schematic representation of the nodes that emerged as a result of the cycles of coding and re-coding using the data-driven approach. As can be seen, this map is far more comprehensive than the initial concept driven map used in the work of Benton and Morrison (2009b).

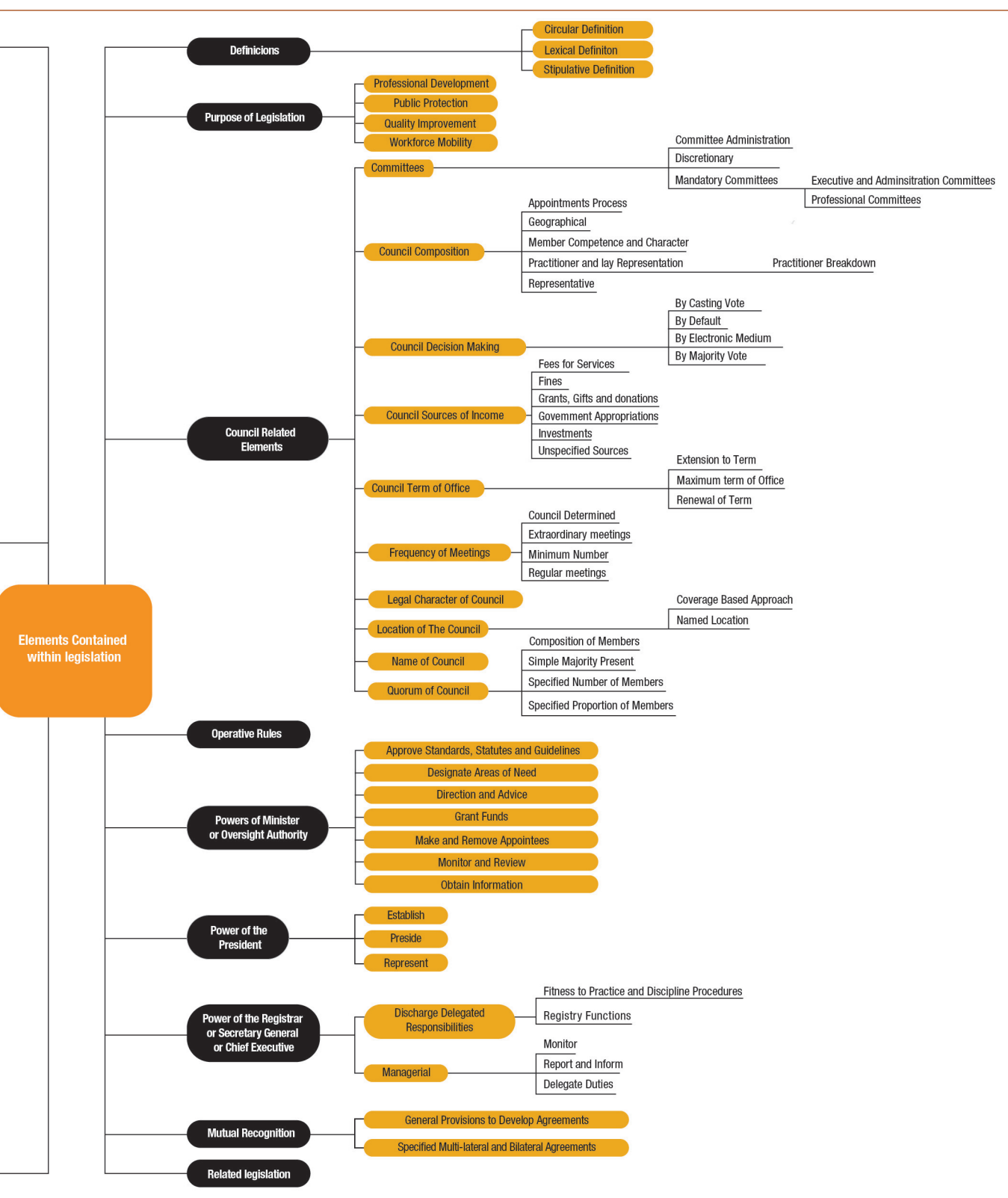
## **NODES IN THE COMPREHENSIVE FRAMEWORK – A LEXICON OF TERMS**

A comprehensive copy of the nodes and associated descriptions can be found in Annex 8. Table 18 provides an illustrative example of a first-level node (theme) from the developed comprehensive framework illustrated in Figure 25. A first-level node is a node that is directly connected to the central core of the map "Elements Contained within Legislation". Second, third and subsequent lower order levels of node are the children and grandchildren of the first-level node and represent more and more specific sub-themes of the higher order description.

Figure 25. Schematic representation of nodes generated through data driven



## Open coding of sources material to describe comprehensive comparative framework



The descriptions provided (see Annex 8 for full list) have all been developed as a result of the cyclical coding process. In some cases a precise definition of the node/theme pre-existed in published work and in such cases the source of the definition is cited using established conventions.

Nombre Descripción del nodo (Tema) Reconocimiento mutuo Proporciona detalles sobre cómo las enfermeras que tienen una cualificación obtenida fuera de la jurisdicción se pueden colegiar y asegurarse el derecho a ejercer en la jurisdicción cubierta por la ley. El acuerdo puede ser específico cuando se nombra la segunda jurisdicción o grupo de jurisdicciones o puede ser de carácter general cuando se describe un proceso.

Table 18. Illustrative example of name and associated description of a node

Name	Description of Node (Theme)
Mutual Recognition	Provides details of how nurses who have a qualification obtained outside the jurisdiction may get registered and secure the right to practice in the jurisdiction covered by the act. The agreement may be specific where the second jurisdiction or group of jurisdictions are named or may be of a general form where a process is described.

SIMILARITIES AND DIFFERENCES BASED ON KEY ATTRIBUTES

As can be seen from the comprehensive comparative framework, Figure 24 some of the themes that have been identified have multiple levels of detail (e.g. *Responsibilities and Functions*) whereas others have a single level (e.g. *Title*). The results of the lexicon of terms and the associated exploration of similarities and differences focusing on both the aggregated and sub levels (where they exist) now follows. In each case, the sub-section begins with the heading of the first-level theme being explored and the operational description then given in italics.

Title

*"The legal name of the act or decree is specified in the body of the act in addition to the reference name provided on the front page of the document. The aim of this is to introduce consistency and to facilitate accurate referencing of the legislation. In addition to the name there can be an associated date of the act and in some cases an additional reference number."*



Where a title is given in the body of the act (12 out of the 14 sources) then the title is likely to contain a direct reference to the professional group covered by the act (nurse, nurses and midwives, health personnel, health practitioner, etc.). In addition, as noted in the description of the node, a date and/or a reference number can be contained in the title. In the two sources where a title is not provided in the body of the act the same information is contained in the full reference title on the front cover of the act. Examination of the various key attributes of interest reveals that there are no differences across the attributes.

## Definitions

*“Documents any terms that are prescribed and have specific meaning in the legislation. These descriptions should help to bring clarity to the interpretation of the act, its scope and application of processes.”*

All definitions allocated to this node from the various sources were further coded against three different second-level themes – stipulative, lexical or circular definitions. For clarity the operational definitions of the three categories as described by Scheffler (1968) along with an example are set out below:

- **Stipulative Definition** – *Specifying a particular formulation as the meaning for a purpose with no concern for common meaning or usage.*

*e.g. “Health Personnel shall mean personnel with an authorization pursuant to section 48 or a licence pursuant to section 49”*

Health Professions Act – (Norway)

- **Lexical Definition** – *Lists and describes all common usages of a term used within a language community.*

*e.g. “Calendar Year means a period of 12 months beginning 1 January.”*

Health Practitioner National Law – (Australia)

- **Circular Definition** – *Uses the term being explained as part of its own definition.*

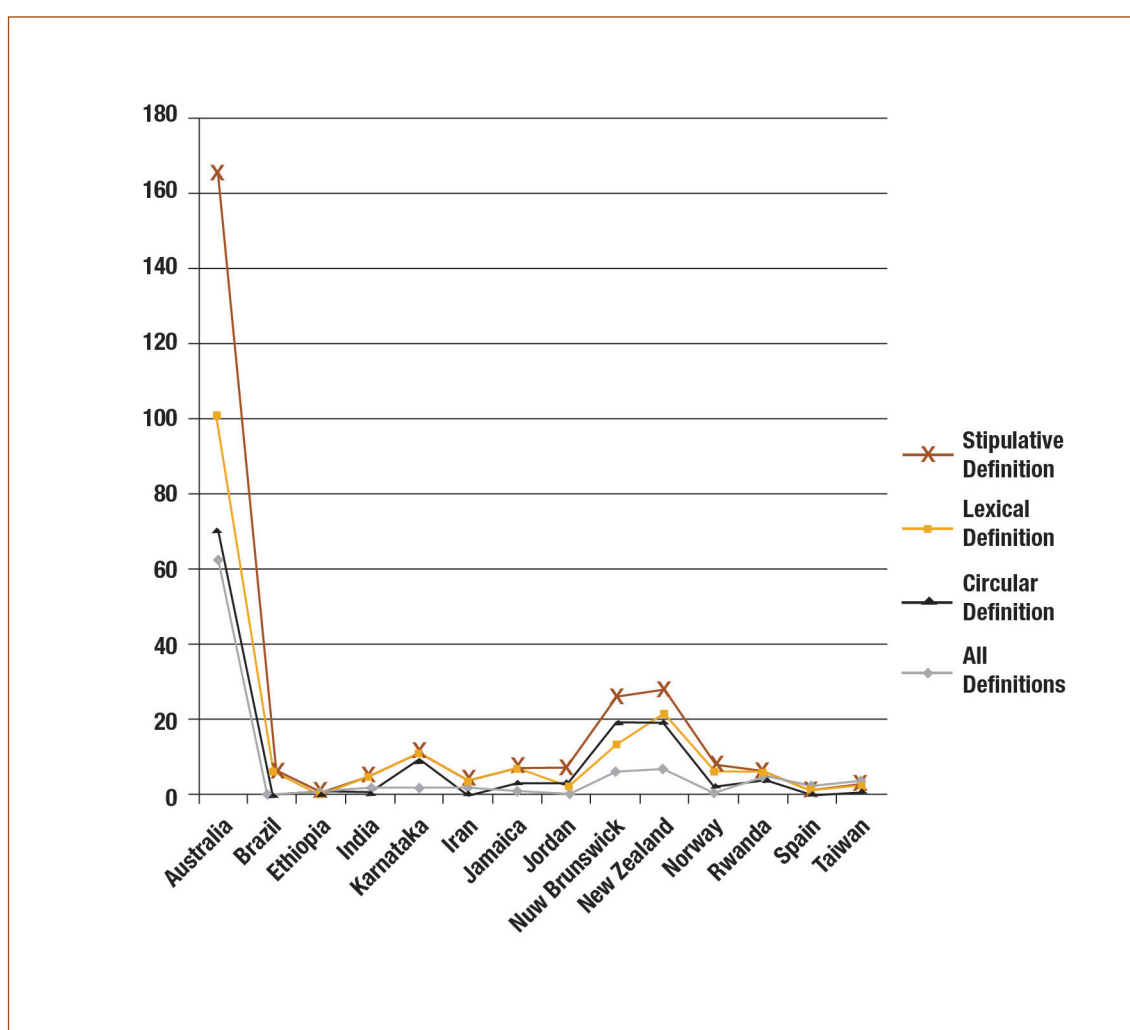
*e.g. “Required Standards of Competence, in relation to a health practitioner, means the standard of competence reasonably to be*

*expected of a health practitioner practicing within that health practitioner's scope of practice."*

Health Practitioner Competence Assurance Act – (New Zealand)

The number of definitions given by source varied enormously. Figure 26 provides a breakdown of the numbers both by category and in total.

**Figure 26. Line graph of frequency of use of node definition relative to source legislation**



When the sources were broken down by attribute, several patterns emerged (see Tables 19 and 20).

**Table 19. Detailed breakdown of frequency of ‘Definitions’ coded from source jurisdictions ranked by attributes (geographic region, economic status, legal tradition, administrative approach and regulatory model) Part 1.**

Jurisdiction	Geographic Region	All Definitions	Jurisdiction	Economic Status	All Definitions
Ethiopia	Africa	0	Spain	High	0
Rwanda	Africa	11	Taiwan	High	3
Taiwan	Asia	3	Norway	High	5
India	Asia	3	New Brunswick	High	39
Karnataka	Asia	20	New Zealand	High	46
Jamaica	Caribbean	12	Australia	High	237
Spain	Europe	0	Ethiopia	Low	0
Norway	Europe	5	Rwanda	Low	11
Iran	Middle East	1	India	Lower Middle	3
Jordan	Middle East	5	Karnataka	Lower Middle	20
New Brunswick	North America	39	Jamaica	Lower Middle	12
Brazil	South America	6	Iran	Upper Middle	1
New Zealand	South Pacific	46	Jordan	Upper Middle	5
Australia	South Pacific	237	Brazil	Upper Middle	6

Jurisdiction	Legal Tradition	All Definitions
Ethiopia	Civil Law	0
Spain	Civil Law	0
Taiwan	Civil Law	3
Brazil	Civil Law	6
New Brunswick	Common Law	39
New Zeland	Common Law	46
Australia	Common Law	237
India	Common Law	3
Karnataka	Common Law	20
Jamaica	Common Law	12
Iran	Islamic Law	1
Norway	Mixed Civil Cusomary Customary	5
Rwanda	Mixed Civil Cusomary	11
Jordan	Mixed Common Islamic	5

**Table 20. Detailed breakdown of frequency of ‘Definitions’ coded from source jurisdictions ranked by attributes (geographic region, economic status, legal tradition, administrative approach and regulatory model) Part 2.**

Jurisdiction	Administrative Approach	All Definitions	Jurisdiction	Regulatory Model	All Definitions
India	Division of Powers	3	India	Delegated Self-Regulation	3
Karnataka	Division of Powers	20	Karnataka	Delegated Self-Regulation	20
Brazil	Division of Powers	6	Jamaica	Delegated Self-Regulation	12
Ethiopia	Multi-D Single Board Umbrella	0	Spain	Delegated Self-Regulation	0
New Zealand	Multi-D with Individual Boards	46	Iran	Delegated Self-Regulation	1
Australia	Multi-D with Individual Boards and Shared services	237	Jordan	Delegated Self-Regulation	5
Taiwan	Regulatory with	3	Taiwan	Government	3
Norway	Regulatory with	5	Norway	Government	5
Rwanda	Single Board	11	New Brunswick	Pure Self-Regulation	39
Jamaica	Single Board	12	Ethiopia	Supervised Self-Regulation	0
Spain	Single Board	0	Brazil	Supervised Self-Regulation	6
Iran	Single Board	1	New Zeland	Supervised Self-Regulation	46
Jordan	Single Board	5	Australia	Supervised Self-Regulation	237
New Brunswick	Single Board	39	Rwanda	Supervised Self-Regulation	11

***Tables 19 and 20 provide a detailed breakdown of the distribution of the code for ‘definitions. For the remainder of this chapter such detail will not be provided although summary data tables for each node is included in Annex 9 with the summary table for this node repeated as an example in Table 21.***

Table 21. Summary table of data from sources, coded to node “definitions” with associated attributes and sub-node data

Jurisdiction	Geographic Region	Legal Tradition	Administrative Approach	Regulatory Model	Economic Status	Stipulative Definition	Lexical Definition	Circular Definition	All Definitions
Australia	South Pacific	Common Law	Multi-D with Individual Boards and Shared services	Supervised Self-Regulation	High	101	63	73	237
Brazil	South America	Civil Law	Division of Powers	Supervised Self-Regulation	Upper Middle	6	0	0	6
Ethiopia	Africa	Civil Law	Multi-D Single Board Umbrella	Supervised Self-Regulation	Low	0	0	0	0
India	Asia	Common Law	Division of Powers	Delegated Self-Regulation	Lower Middle	2	1	0	3
Iran	Middle East	Islamic Law	Single Board	Delegated Self-Regulation	Upper Middle	1	0	0	1
Jamaica	Caribbean	Common Law	Single Board	Delegated Self-Regulation	Lower Middle	4	3	5	12
Jordan	Middle East	Mixed Common Islamic	Single Board	Delegated Self-Regulation	Upper Middle	1	0	4	5
Karnataka	Asia	Common Law	Division of Powers	Delegated Self-Regulation	Lower Middle	9	2	9	20
New Brunswick	North America	Common Law	Single Board	Pure Self-Regulation	High	13	6	20	39
New Zealand	South Pacific	Common Law	Multi-D with Individual Boards	Supervised Self-Regulation	High	21	7	18	46
Norway	Europe	Mixed Civil Common Customary	Regulatory Unit	Government	High	2	0	3	5
Rwanda	Africa	Mixed Civil Customary	Single Board	Supervised Self-Regulation	Low	1	5	5	11
Spain	Europe	Civil Law	Single Board	Delegated Self-Regulation	High	0	0	0	0
Taiwan	Asia	Civil Law	Regulatory Unit	Government	High	2	0	1	3

Analysis of the distribution of the number of definitions across sub-nodes revealed no differences associated with the attributes; however, at the aggregate level, a number of similarities and differences are present:

- There is no discernable pattern in relation to the frequency of 'Definitions' coded from the source documents when the attribute 'Regulatory Model' is considered.
- There appears to be a relationship between 'Geographic Region' and the frequency of 'Definitions' with South Pacific and possibly North America and the Caribbean containing higher numbers of 'Definitions'.
- Certain 'High Income' jurisdictions are more likely to specify 'Definitions' in their nursing legislation.
- Jurisdiction that operate under a 'Common Law' tradition are more likely to specify 'Definitions' than other legal traditions and those that operate under 'Civil Law' are less likely to specify 'Definitions'.
- Jurisdictions that operate the administrative approach of 'Multi-Disciplinary and Individual Board' irrespective of whether they have shared services are more likely to specify 'Definitions'.

A more general observation that can be noted in the data is the relatively low level of precision used by the legislation for providing 'Definitions'. Of the total number of 'Definitions' provided (388), 42% are "stipulative" simply saying that the term is defined within a specific part of the legislation. This, according to Scheffler (1968), does not have or is unlikely to have a shared common meaning outside of the community of practice (jurisdiction). 36% are "circular" in their format using the same word to explain the word being defined which on the whole is not very helpful in bringing clarity, understanding and consistency of application to the concept or process. Only 22% of the definitions, one in five (87), use a "lexical" format, which is more likely to share meaning in any trans-jurisdictional discussions.

## **Purpose of Legislation**

*"The explicitly stated intention of the legislation."*

Not all legislative sources explicitly provide a clear statement of purpose. Of the sample, 10 out of the 14 made such a statement. Closer examination of these statements identified that the purpose of the legislation could be considered under one of four sub-themes:

- **Professional Development** – *The legislation contains powers to assist in the advancement of the profession and its interests.*
- **Public Protection** – *Legislation is designed to ensure that the competence of those that practice and the manner they conduct themselves is such as to do no harm to patients or the populations they serve.*
- **Quality Improvement** – *An approach designed to advance standards of services offered by professionals and to increase or maintain trust.*
- **Workforce Mobility** – *The legislation is designed to facilitate movement of nurses who meet required standards across jurisdictional borders whilst simultaneously ensuring citizens have access to competent practitioners.*

All sources that state an explicit purpose are most likely to identify public protection as the main reason for the legislation. This is then followed by professional development, workforce migration and quality improvement in that order of frequency (10, 4, 1 and 1).

Consideration of the key attributes revealed no discernable relationship between the presence of an explicitly stated purpose and the variables 'Geographic Region', 'Legal Tradition', 'Administrative Approach', 'Regulatory Model' and 'Economic Status'.

## Council Related Elements

*"The structural, administrative, governance and process components associated with the governing body."*

In addition to the main node, this part of the map contains 10 second-order nodes and additionally 30 third-level nodes. Despite the nodes being well populated there were few apparent relationships:

- Sources from regulatory unit and specifically government-based regulation appear associated with little specification on Council related elements.
- Sources from the South Pacific region had the most material coded to the node.

Examination of the second-level nodes confirms that regulatory unit and government-based approach are associated with few examples being coded to the sub-nodes. However a number of further, more specific, relationships do emerge at second level nodes, that is:

- The power to establish ‘Discretionary Committees’ seems related to common law tradition;
- Sources from the South Pacific provide the greatest range of specificity in ‘Council Decision Making’;
- The ability to provide an ‘Extension to Term’ of office seems associated with the common law tradition;
- Specifying a ‘Named Location’ and a ‘Coverage Based Approach’ to the physical ‘Location of the Council’ seems related to the Islamic legal tradition; and
- Specifying the number of board members in relation to the ‘Quorum of Council’ seems associated with a common law tradition.

## **Operative Rules**

“Specified instruction on how functions and responsibilities are to be delivered and or implemented. Such instructions provide no flexibility or scope for interpretation.”

Two jurisdictions from the South Pacific, relative to others included in the sample, have a very high number of references coded against this node. Both Australia and New Zealand have a five to eight fold difference compared to the next highest coded source (New Brunswick). In addition it would appear that there might be a positive relationship (most material coded to nodes) associated with the legal tradition of common law and a negative relationship (least material coded) with civil and Islamic law.

## **Powers of Minister or Oversight Authority**

“The rights and actions associated with the oversight of councils as exercised by individuals or organisations given the responsibility to act as specified in the legislation.”

Examination of the data revealed that both Australia and New Zealand (South Pacific region) had the widest range of powers attributed to the minister or oversight body. Conversely, those sources with an Islamic legal tradition had no oversight powers allocated to a minister or oversight authority. Examination of second order nodes however revealed no sub-level relationships.



## Powers of President

*“The rights and actions associated with the individual who has been appointed or elected as the lead person of the Board or Council as set out in the legislation.”*

Although there were few references coded to this node it would appear that there might be a relationship between the attribute of regulatory model and specifically the delegated self-regulation approach and increased presidential powers.

## Power of Registrar and or Chief Executive Officer

*“The rights and actions associated with the individual who has been appointed or elected as the lead executive or administrative officer of the council. These powers can be prescribed in the legislation or delegated by the council.”*

An increased number of references to this node seem to be associated with the legal tradition of common law approach. In the case of administrative approach – those sources that utilise a regulatory unit and a regulatory model based on government seem to be associated with the absence of any content coded to the node powers of registrar and or chief executive officer.

## Mutual Recognition

*“Provides details of how nurses who have a qualification obtained outside the jurisdiction may get registered and secure the right to practice in the jurisdiction covered by the act. The agreement may be specific where the second jurisdiction or group of jurisdictions are named or may be of a general form where a process is described.”*

The sample generated very few examples of clauses that related to mutual recognition of qualifications. Both Australia and New Zealand provided examples, as did India and Karnataka. In addition Norway also made provision for mutual recognition arrangements. All of these countries have well-established bi-lateral or multi-lateral agreements with other nations or jurisdictions.

With the exception of the regional link between Australia and New Zealand (South Pacific) no other apparent relationships were identified between the coded material and the attributes.

## Related Legislation

*“Other acts, laws or decrees that interface with or are affected by the Nursing Law.”*

The majority of sources, 10 out of 14, make provision for identifying related legislation. In some cases the act identifies earlier legislation and repeals this so as to secure the pre-eminent position of new legislation, e.g.

*The Madras Nurses and Midwives Act, 1926 (Madras Act III of 1926), the Hyderabad Nurses, Midwives and Health Visitors Registration Act, 1951 (Hyderabad Act XIX of 1951) and the Bombay Nurses, Midwives and Health Visitors Act, 1954 (Bombay Act XIV of 1954), are hereby repealed.*

**Karnataka Nurses Act (1961)**

Or

*All prior legal provisions contrary to this Law are hereby repealed.*

**Rwanda Nursing Act (2008)**

In other cases, the act specifies how conflicts between parts of the act or between the act and other legislation can be dealt with, e.g.

*The rules governing professional associations and their Councils and the statutes of the same shall remain in effect in all that does not conflict with the provisions of this Act, notwithstanding that it may propose or agree on the precise statutory adjustments, as provided herein.*

**Spanish Law 2 (1974)**

By far the most common approach is to identify and list other pieces of legislation that are dependent, co-dependent or contingent upon the act, e.g.

*List of amendments incorporated in this reprint (most recent first) Health Practitioners Competence Assurance (Designation of Anaesthetic Technology Services as Health Profession) Order 2011 (SR 2011/227): clause 7 Policing Act 2008 (2008 No 72): section 116(a)(ii) Births, Deaths, Marriages, and Relationships Registration Amendment Act 2008 (2008 No 48): section 47 Human Tissue Act 2008 (2008 No 28): section 92 Insolvency Act 2006 (2006 No 55): section 445 Coroners Act 2006 (2006 No 38): section 146 Relationships (Statutory References) Act 2005 (2005 No 3): section 7*

**New Zealand Health Practitioners Competence Assurance Act (2003)**

Consideration of the coded material revealed no differences or similarities in relation to the key attributes associated with the source material as coded to this theme.

## Enactment

*“The power and authority used to develop and implement the law.”*

This is a common feature of many acts and simply states under whose authority the act is implemented. In some occasions the clause will make reference to the fact that certain required processes or steps have been followed prior to enactment. Examination of the data coded to this node reviewed no similarities or differences in relation to the key attributes being considered.

## Responsibilities and Functions

*The explicit powers and activities given to the regulatory body through legislation.*

As can be seen from Figure 23, this is the most complex part of the framework with multiple levels and a great deal of the source material coded to the various nodes, sub-nodes, sub-sub-nodes, sub-sub-sub-nodes and sub-sub-sub-sub-nodes.

### Relationships at Level 1 Regarding the Node Responsibilities and Functions

Examination of the aggregate level one node reveals a potential relationship between geographic regions; the South Pacific has by far the most material coded to this node. In addition it would appear that ‘Economic Status’ might also be positively correlated with the material coded to this node with increasing economic status being positively correlated with increased amounts of references to *Responsibilities and Function*.

### Relationships at Level 2 Regarding the Node Responsibilities and Functions

- The presence of material coded to the second level node *Accreditation* seems to be positively related to a tradition of common law and negatively related to the administrative approach of regulatory unit and the regulatory model of government.
- Material coded to the theme *Administrative and Managerial* seems negatively associated with the administrative approach of regulatory unit and the regulatory model of government.

- In relation to responsibility to *Advance the Profession* there appears to be a positive relationship associated with both the geographic region – Middle East – and the legal tradition of Islamic Law and a negative association with the administrative approach of regulatory unit and the regulatory model of government. In addition, the Spanish jurisdiction also has significant material related to this node but does not appear to correlate with any of the key attributes under examination.
- The Islamic Law Tradition seems positively related to the responsibility for giving *Advice to Government*. In addition, *Advice to Government* is negatively related to the administrative approach of regulatory unit and the regulatory model of government.
- The catch-all clause *Responsibility* seems negatively related to the geographic region – Middle East, the legal tradition of Islamic Law, the administrative approach of regulatory unit and the regulatory model of government.
- The responsibilities of *Fitness to Practice* and *Standards, Statutes, Rules and Guidance Development* seem to positively correlate with South Pacific source material.

### **Relationships at Level 3 regarding the node Responsibilities and Functions**

- Examination of the Level 3 nodes that are children of the Level 2 node *Accreditation* seems to suggest that the origins of the relationship with the legal tradition Common Law are derived from the presence and positive association with the responsibilities of *Institutional Approval* and *Programme Approval*.
- All three level 3 nodes, *Improving Professional Practice*, *Promoting and Protecting the Profession* and *Undertaking Research* contribute to the relationship between the level 2 node *Advance the Profession* and the Islamic legal tradition. In addition it would appear the origins of the apparent relationship between the Spanish source material and the level 2 node *Advance the Profession* is the responsibility for *Improving Professional Practice*.
- Five of the level 3 nodes, *Collaboration*, *Consultation*, *Make Appointments*, *Set Fees* and *To Enter Into Contracts* that contribute to the level 2 node *Administrative and Managerial* seems negatively related to the Administrative Approach – Regulatory Unit and the Regulatory Model – Government.

## **DESCRIPTIVE STATISTICS OF THE CHARACTERISTICS OF DELPHI RESPONDENTS**

A total of 75 individuals with differing professional or lay experience were invited to participate in the Delphi study. In keeping with the underpinning methodology unless a

potential participant indicated that they wished to decline from participation all participants were sent copies of the Round One, Two and Three questionnaires whether or not they responded to the original letter that sought agreement to their participation. In short, and consistent with the Policy Delphi design described in the methods section, all individuals had opportunities to contribute at all stages even if they had not participated in the previous round. The reason for this approach, in addition to being consistent with the planned research method, was that when the letters of invitation were sent out several responses (4) came back indicating that the potential participant was absent and not able to reply by the due date. In addition one person stated that they needed to consult their board before providing a response and that the next scheduled meeting was after the indicated response date.

**Table 22. Summary of participation in the various stages of data collection**

Total number of invitees	Those that responded to the call to participate	Those that responded to Round One	Those that responded to Round Two	Those that responded to Round Three	Those that responded to at least one of the rounds
75	44	46	47	39	59

Table 22 provides a summary of the number of responses both in relation to the original letter of invitation and the three questionnaire rounds. A final column is added that identifies the number of respondents that contributed to at least one of the Delphi rounds. Response to the original letter is not counted in this calculation. It is this final column that is used to calculate the overall participation rate in the study, namely 79% (59).

There now follows a breakdown of the aggregated responses across all three rounds of the Delphi study. The data was also analysed using Chi Squared Test of Association to determine whether there were any significant differences in terms of the response structure for each of the rounds in relation to the dimensions of interest. The summarised tables, containing detailed response figures for each round, can be found in Annex 10. Chi Squared Test of Association identified that there were no statistically significant differences across the various rounds in terms of the dimensions of interest. This confirms that, as intended, a heterogeneous sample of respondents was recruited as per the requirements for a Policy Delphi study.

Respondents were sought from different groups so as to try and generate as diverse a pool of respondents as possible. Since participation in the leadership of both regulatory bodies and professional associations can often be on a voluntary basis both

the respondents paid and voluntary roles were considered in reporting the backgrounds they brought to the questionnaire. Table 23 sets out the distribution of backgrounds – note, because some respondents had both a paid and voluntary role the total exceeds 59.

**Table 23. Distribution of backgrounds of respondents**

Background	Frequency
Regulator (both governmental and autonomous regulators)	26
Educator (both state and private institutions)	15
Service based (both clinical and managerial roles)	20
Professional association	24
Lay person (patient representative, other disciplines)	6

The gender breakdown of respondents is almost three times that of the slightly global norm for men in the nursing profession (10%), at 29% within the expected range since the sample included a number of countries from the Middle East where the percentage of males in the nursing profession is much higher (30–50%). Also, it is an often reported fact that the percentage of men in senior nursing positions is higher than that the norm for the population as a whole (American College of Healthcare Executives, 2006).

Respondent came from the full range of high to low-income countries as can be seen in the breakdown as set out in Table 24.

**Table 24. GNI categories of countries where respondents work**

GNI Category of Country where the Respondent Lives	Frequency
High	37
Upper Middle	10
Lower Middle	9
Low	3

Examining the legal tradition of the countries where respondent live also highlighted good coverage of the differing legal frameworks – see Table 25.

**Table 25. Legal traditions of countries where respondents work**

Tradición Jurídica	Frecuencia
Civil Law	24
Common Law	31
Islamic Law	4

## ROUND ONE DATA – A DEFINITION OF PROFESSIONAL NURSE REGULATION

Four questions in the Round One Delphi Questionnaire (Annex 4) contributed data to the analysis of the definition of professional nurse regulation. By asking for information on material that respondents felt might be redundant as well as concepts that they felt needed to be added alongside requesting alternative definitions, a range of data was obtained. Additionally some of the general comments (Question 5) also contributed insights to the data analysis.

Whilst many respondents, more that 50% (n= 24), felt that the existing definition was adequate, a number of consistent responses were received that suggested that changes to the current International Council of Nurses' definition of professional regulation should be proposed. Namely:

- The revised definition should be succinct if possible.
- All concepts should be included but rather than including additional definitional text they should be elaborated in an associated narrative.
  - The narrative may provide additional specific definitions for the various concepts and offer illustrative examples of how these are achieved or expressed in legislation from around the world.
- Analysis of the comments resulted in the identification of five component concepts that should be included in an updated definition of professional nurse regulation. The concepts are set out here but not elaborated with specific examples from extant legislation.
  - Component parts of the definition will include (highlighted in red):
    - The **subjects** of the regulation – registrant (nurse) and profession.

- The **purpose** of the regulation – protect the public, facilitate efficient and effective movement of registrants from one jurisdiction to another, alignment of professional practice with contemporary needs.
- The concept of **sustained activity** should be introduced – continuing competence.
- The concept of **enforcement** should be included – the means by which compliance with prescribed standards is secured.
- The concept of **mechanisms** – all those legitimate and appropriate means (e.g. protection of the use of title, defined scopes of practice, approval of education programmes, requirements for continuing competence, professional conduct reviews etc.).
- In terms of developing a revised definition the following steps were taken:
  - The existing ICN definition was used as the basis for revision;
  - Deletion of redundant text;
  - Inserting missing concepts;
  - Refocusing the emphasis on registrants rather than members;
  - Explicitly highlighting the purpose of professional regulation.

The above results from the Round One revision of the definition resulted in the following Round Two working definition that was then further reviewed by respondent in the second round Delphi questionnaire.

*All those legitimate, appropriate and sustained means whereby order, identity, consistency, control and accountability are brought to autonomous practitioners through legally enforced and voluntary action resulting in:*

- *enhanced protection of the public;*
- *efficient and effective trans-jurisdictional movement; and*
- *the continued re-alignment of professional practice to societal and health system needs.*



## **ROUND ONE DATA – FEATURES OF HIGH PERFORMING REGULATORY BODIES**

Of the 75 questionnaires sent to the panel of experts, 46 completed returns were received (61% response). Each respondent suggested five features that they felt were good indicators of high performing regulatory bodies resulting in a total of 230 contributions. These contributions were analysed for clarity; multiple concepts contained within a single response were separated; then duplicate ideas were removed; and a series of single clear candidate features produced. As a result a total of 49 candidate features were identified. The edited features, inserted in random order, were used as the stems for the questions in the second part of the Round Two Questionnaire (Annex 5).

## **ROUND TWO DELPHI DATA**

The data collection period for the Round Two questionnaire started in early August and in keeping with the planned approach three weeks was given for the return completed questionnaires. However when the material was sent out a significant number of 'Out Of Office' responses were returned (11) along with a number of direct request for an extension to the response date from respondents (6) who were just about to go on holiday. This request was granted and accordingly the normal three-week period was extended to five-weeks. Notification of this extension was sent out to all those who had not responded by the original due date and a single reminder was sent 3 days prior to the revised due date. This permitted those that wished to participate to do so on return from their summer break. A total of 47 (63%) completed questionnaires were received for analysis in the Round Two Delphi.

## **ROUND TWO – A DEFINITION OF PROFESSIONAL NURSE REGULATION**

Round Two generated both quantitative and qualitative results in relation to the revised definition of professional regulation. The quantitative results provide an indication of the general views of the respondents and the degree of consensus – see Table 26. The qualitative results offered a rich source of material to assist in the further refinement of the definition.

The results in Table 26 demonstrate a high degree of consensus as can be seen through examination of the distribution of responses to the Likert scale. In addition, the percentage of positive agreement, 70%, 77%, 74%, and 81% reaches the pre-set threshold in all four statements. These results, coupled with consideration of the median and interquartile range data, further supports the assertion that there exists a high level of consensus. However, as can be seen from Table 26, the interquartile range associated

with the statement “*The definition contains all the necessary concepts*” does not meet the pre-set level of agreement and accordingly it is important to scrutinize the qualitative comments associated with this item.

**Table 26. Quantitative results relating to round two definition of professional regulation**

Statement	Response	Frequency	Percentage +Consensus	Inter Quar- tile Range	Median
<b>The definition contains all the necessary concepts</b>	Strongly Agree	16	70,21	2	2
	Agree	17			
	Disagree	11			
	Strongly Disagree	1			
<b>The definition is clear</b>	Strongly Agree	11	76.60	0	2
	Agree	25			
	Disagree	7			
	Strongly Disagree	2			
<b>The definition has no redundant material</b>	Strongly Agree	22	74.47	1	2
	Agree	13			
	Disagree	9			
	Strongly Disagree	1			
<b>The definition is contemporary</b>	Strongly Agree	15	80.85	1	2
	Agree	23			
	Disagree	3			
	Strongly Disagree	2			

Consideration of the qualitative comments does provide valuable insights into how the definition may be further revised and improved. Namely:

- Four respondents highlighted that it is not accepted by all jurisdictions that nurses are fully autonomous and additionally that the scope of some regulatory bodies contains a mixture of different levels of practitioners, i.e. some function under the supervision of others whilst some are autonomous.

- A suggestion was made that the more encompassing term ‘profession’ be used instead of ‘practitioner’, however there are two problems with this approach. Firstly, whilst regulation does have an impact on the profession, for example in terms of direction and scope of practice, it is the individual that is the significant focus of the majority of legislation. Secondly, the term ‘profession’ implies a particular level of preparation and status and, in some jurisdictions, the responsibilities of the regulatory body extends to support personnel. Hence, a further revision to this part of the definition was proposed for the third round questionnaire.
- It was highlighted by three respondents that there might be an invalid assumption contained in the last bullet point of the revised definition. Specifically it was questioned whether health system needs and patient needs are synonymous. Respondents highlighted that this may not necessarily be the case and therefore suggested that a more explicit form of words be found to reflect alignment with patient need.
- Two respondents expressed a view that there is a need to further define and elaborate some of the terms. Additionally, the question of whom the definition was targeted at was raised. It was suggested that there may need to be additional narrative particularly if the lay public are to understand the complexities of the various points being made. This builds and helps clarify some of the ideas that emerged in the first round where it was noted that the definition contained several component parts. Considering the various points made it is possible to identify five component parts to the definition – subject, purpose, mechanisms, means, and outcomes. Accordingly, as a means of trying to keep the definition relatively succinct, in addition to revising the definition for the third round, the five component parts are explicitly identified and elaborated upon in more detail in an annotated format.
- It was highlighted that who has the power to define, implement and enforce standards and codes may vary as a function of the legal system in place in a particular jurisdiction. It was suggested that there is a need to insert “/or” after ‘...legally enforced and’ to accommodate a wider range of regulatory models.
- Five respondents commented upon the bullet point “*efficient and effective trans-jurisdictional movement*”. However the views expressed were mixed; two felt that this has nothing to do with protecting the public and should be removed; whereas three respondents felt the exact opposite that migrant nurses were such a threat to patient safety that they welcomed inclusion of this point and felt it needed more elaboration.
- Five respondents commented on the complex nature of the definition. They identified that getting the balance between a comprehensive definition and simplicity was a challenge. The problems of accurately translating complex linguistic structures to another language were highlighted. Two of the respondents went on to offer a more simplified version. However, each emphasized differing aspects.

Drawing all these points together, Figure 27 provides not only the revised text used for the final round definition of professional regulation but also offered a suggested way of elaborating on the component parts.

## ROUND TWO DATA – FEATURE OF HIGH PERFORMING REGULATORY BODY

Respondents had the opportunity to score each of the 49 potential features using six different scales. This section reports the results associated with the first four of these measures – Desirability, Feasibility, Importance and Confidence. The remaining two measures are reported in the subsequent section.

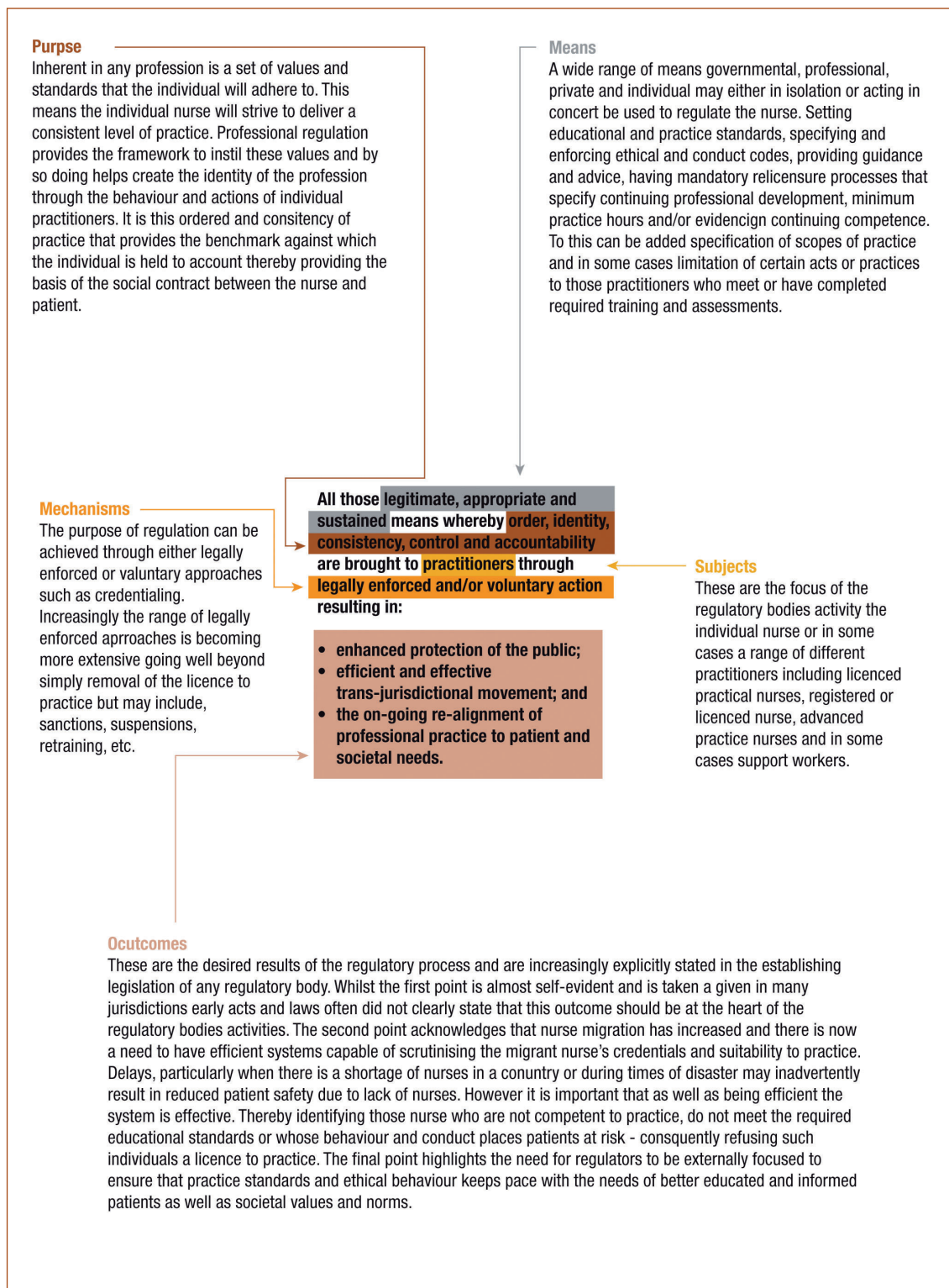
Two spelling errors were identified in two of the statements. One, although noticed by two respondents, did not seem to have an impact on the ability of respondents to make sense of the statement. The second typographical error did however result in confusion since the word ‘morale’ was used instead of ‘moral’. Looking at the interquartile ranges and percentage level of agreement this one feature accounted for two out of the three scores that failed to reach the previously determined percentage agreement threshold of 67%. Additionally two out of four interquartile range scores that failed to reach the threshold of  $\leq 1$  also originated from this one item. Hence, particular attention was drawn to this error in the third round questionnaire with all respondents being asked to score this particular item again.

With the exception of this and one other item, the level of percentage consensus across the 49 items was extremely high with 193 out of the 196 scores reaching the pre-determined threshold of 67% agreement. Additionally, 192 out of 196 measures of interquartile range attained the required level of  $\leq 1$ . The other item that failed to meet agreement on one of the measures “Confidence” (attaining 64% consensus) and on two of the interquartile range scores, “Desirability” and “Confidence” each with scores of 1.5 was:

***“The regulatory body consistently interprets legislation in a permissive manner thereby avoiding the need for new legislation”***

All 49 statements generated one or more (14 being the most) comments. Some of these comments simply reinforced the importance of the feature whilst others sought to explain why the respondent had given a particular value to one or more of the measurement dimensions. Across all 49 statements the most frequently commented upon dimension was that of ‘feasibility’ with several (3) respondents suggesting that there was a need, once agreement had been reached on the various statements, to then proceed to a further stage of:

**Figure 27. Round Three questionnaire definition and associated elaboration of five component parts**



- developing a succinct explanation of the importance of the feature;
- identifying specific indicators or metrics to measure the presence or absence of the feature described in the statement; and
- offering appropriate reference material that can be used elaborate upon the significance of the feature and/or provide examples or learning material to support the attainment of high performance.

A number of respondents (6) identified the need to structure the statements in a more logical manner rather than placing them, as was the case in the second round questionnaire, in random order, that is, grouping like with like. For example, it was noted by four respondents that a number of the statements were linked to good organisational or internal governance and although not necessary unique to regulatory bodies were nevertheless considered important. Other features could be identified relating to particular responsibilities and functions as set out in the legislation such as ethics and professional behaviour. Indeed one response in the space available for general comments suggested:

***“They (the statements) should be grouped in like categories, for example, complaints process.” (Respondent 053)***

To this end Figure 28 was developed to cluster the current 49 statements under four major headings – *Legislation Advocacy & Responsiveness, Organisational & Internal Governance, External Governance & Public Accountability* and *Responsibilities & Functions*.

As previously noted, there was a high degree of consensus regarding the various features. By examining the mean scores both by individual dimension and at the aggregated level it is possible to identify those items felt to be most important. Annex 12 provides all raw scores for each of the 49 features. In addition Tables 27 and 28 provide in rank order the top and bottom five features respectively. The tables are colour coded to assist with the easy identification of the statements. Each statement that is repeated twice or more is given a unique colour.

## **ROUND TWO DATA – MODEL OF REGULATION AND ASSOCIATED ADMINISTRATIVE ARRANGEMENTS**

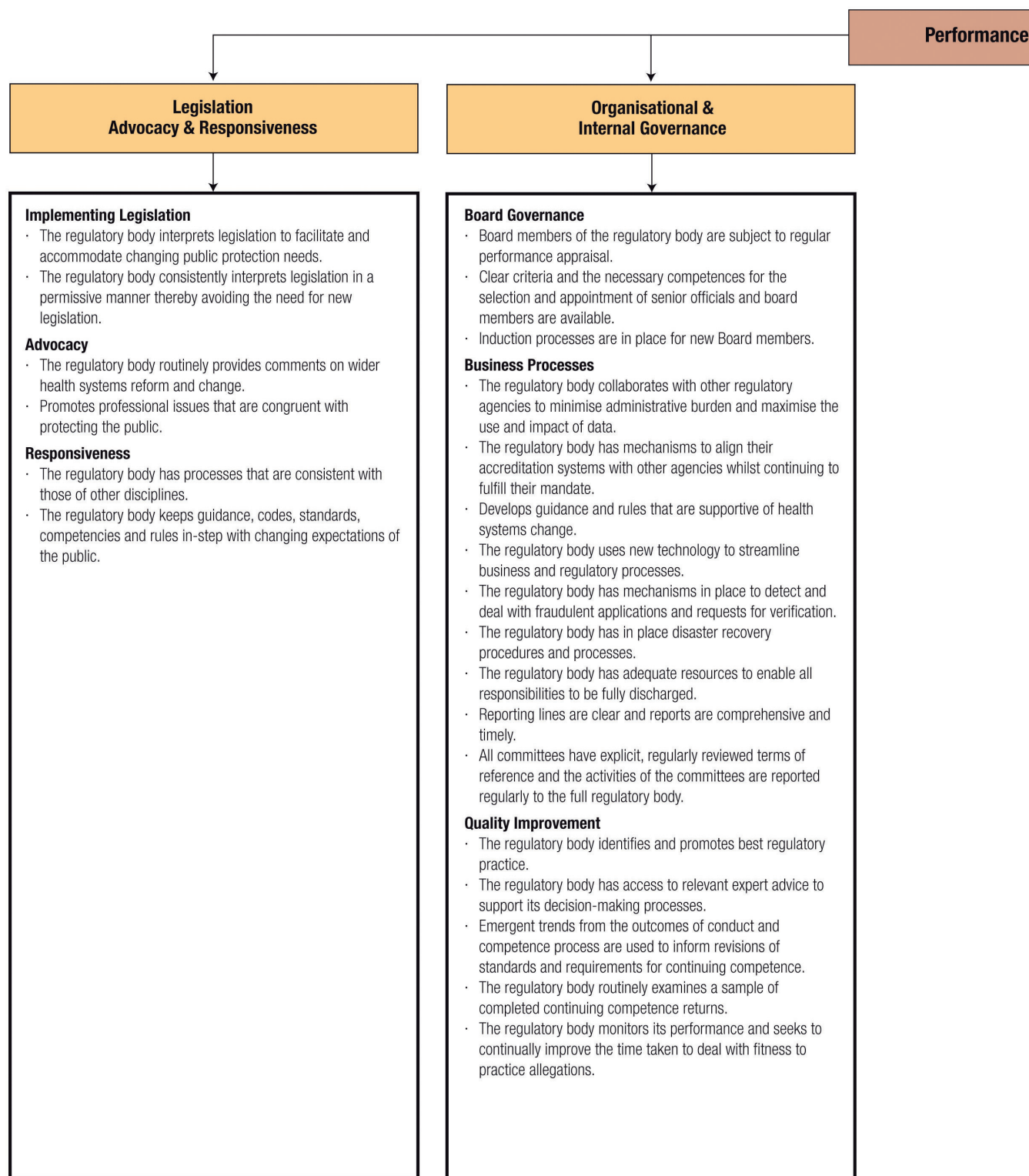
Results relating to both regulatory models and the associated administrative approach were examined both on a feature-by-feature basis as well as in aggregated form. Unfortunately, few comments were submitted by respondents during the Round Two data collection relating to these dimensions. Hence, the final round questionnaire

Table 27. Top five features by dimension and aggregated position

Desirability Top Five	Feasibility Top Five	Importance Top Five	Confidence Top Five	Combined Position Top Five
The regulatory body acts in a manner that maintains the confidence of the public, professionals, employers and other key stakeholders.	The regulatory body provides clear and succinct information on their responsibilities and process to registrants and the public.	The regulatory body acts in a manner that maintains the confidence of the public, professionals, employers and other key stakeholders.	The regulatory body ensures that only persons who meet stipulated criteria for licensure can practice as a professional nurse.	The regulatory body ensures that only persons who meet stipulated criteria for licensure can practice as a professional nurse.
The regulatory body ensures that only persons who meet stipulated criteria for licensure can practice as a professional nurse.	The regulatory body ensures that only persons who meet stipulated criteria for licensure can practice as a professional nurse.	The regulatory body ensures that only persons who meet stipulated criteria for licensure can practice as a professional nurse.	The regulatory body develops and promotes sound ethical and conduct codes.	The regulatory body acts in a manner that maintains the confidence of the public, professionals, employers and other key stakeholders.
The regulatory body provides clear and succinct information on their responsibilities and process to registrants and the public.	The regulatory body identifies and promotes best regulatory practice.	The regulatory body has adequate resources to enable all responsibilities to be fully discharged.	An adequate range of meaningful sanctions for non-observance of the standards and non-compliance with codes of conduct is available.	The regulatory body provides clear and succinct information on their responsibilities and process to registrants and the public.
The regulatory body engages and consults key stakeholders in the development of policy and standards.	The regulatory body has access to relevant expert advice to support its decision-making processes.	There are clear appeals process that can be pursued if the decisions or the actions of the regulatory body are thought to be unsound.	The regulatory body provides clear and succinct information on their responsibilities and process to registrants and the public.	The regulatory body engages and consults key stakeholders in the development of policy and standards.
The regulatory body has mechanisms in place to detect and deal with fraudulent applications and requests for verification.	The regulatory body develops and promotes sound ethical and conduct codes.	The regulatory body maintains independence in resolving allegations and complaints.	The regulatory body acts in a manner that maintains the confidence of the public, professionals, employers and other key stakeholders.	An adequate range of meaningful sanctions for non-observance of the standards and non-compliance with codes of conduct is available.



Figure 28. Thematic map





## ing of the 49 statements

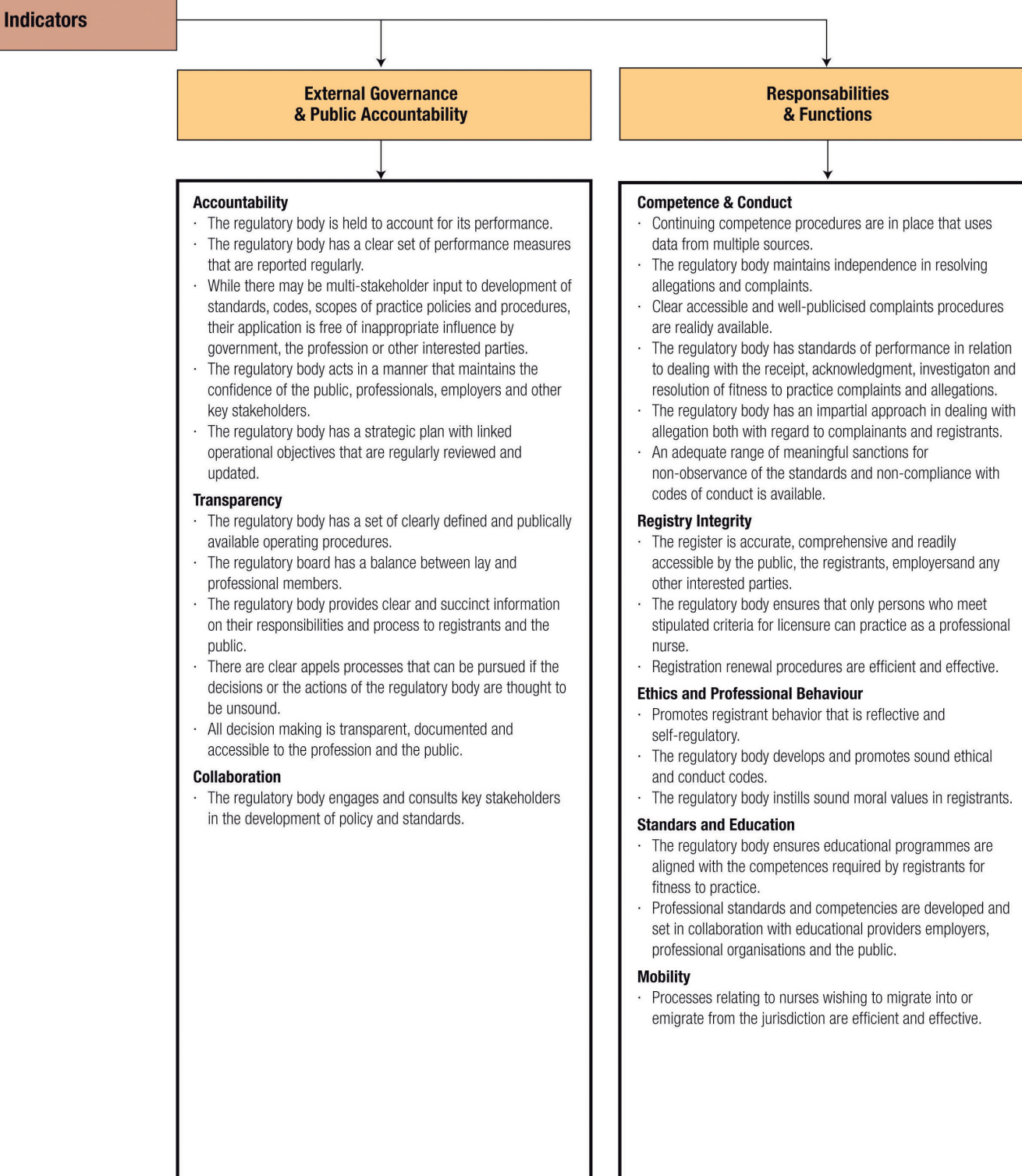


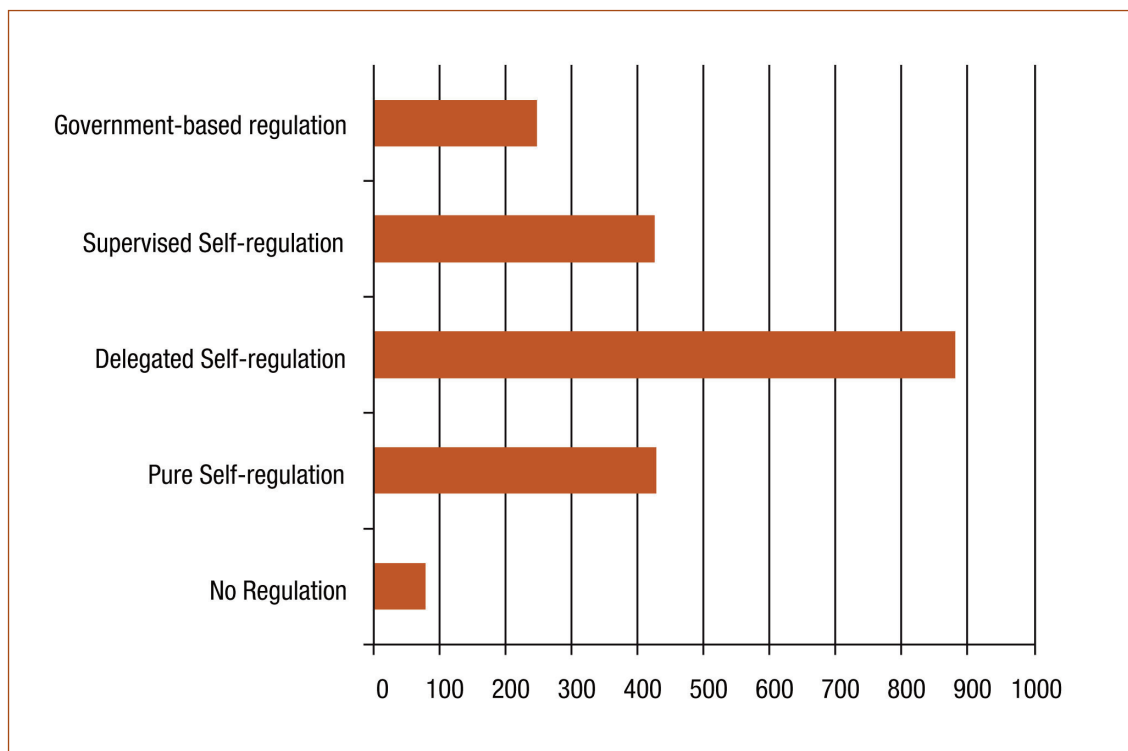
Table 28. Bottom five features by dimension and aggregated position

Desirability Bottom Five	Feasibility Bottom Five	Importance Bottom Five	Confidence Top Five	Combined Position Top Five
The regulatory body consistently interprets legislation in a permissive manner thereby avoiding the need for new legislation.	The regulatory body instills sound morale values in registrants.	The regulatory body consistently interprets legislation in a permissive manner thereby avoiding the need for new legislation.	The regulatory body routinely provides comments on wider health systems reform and change.	The regulatory body consistently interprets legislation in a permissive manner thereby avoiding the need for new legislation.
The regulatory body routinely provides comments on wider health systems reform and change.	The regulatory body consistently interprets legislation in a permissive manner thereby avoiding the need for new legislation.	The regulatory body routinely provides comments on wider health systems reform and change.	The regulatory body instills sound morale values in registrants.	The regulatory body routinely provides comments on wider health systems reform and change.
The regulatory board has a balance between lay and professional members.	The regulatory body routinely provides comments on wider health systems reform and change.	The regulatory body has processes that are consistent with those of other disciplines.	The regulatory body consistently interprets legislation in a permissive manner thereby avoiding the need for new legislation.	The regulatory body instills sound morale values in registrants.
Board members of the regulatory body are subject to regular performance appraisal.	Board members of the regulatory body are subject to regular performance appraisal.	Develops guidance and rules that are supportive of health systems change.	Board members of the regulatory body are subject to regular performance appraisal.	Board members of the regulatory body are subject to regular performance appraisal.
The regulatory body has processes that are consistent with those of other disciplines.	The regulatory body has mechanisms to align their accreditation systems with other agencies whilst continuing to fulfil their mandate.	The regulatory board has a balance between lay and professional members.	Develops guidance and rules that are supportive of health systems change.	Develops guidance and rules that are supportive of health systems change.

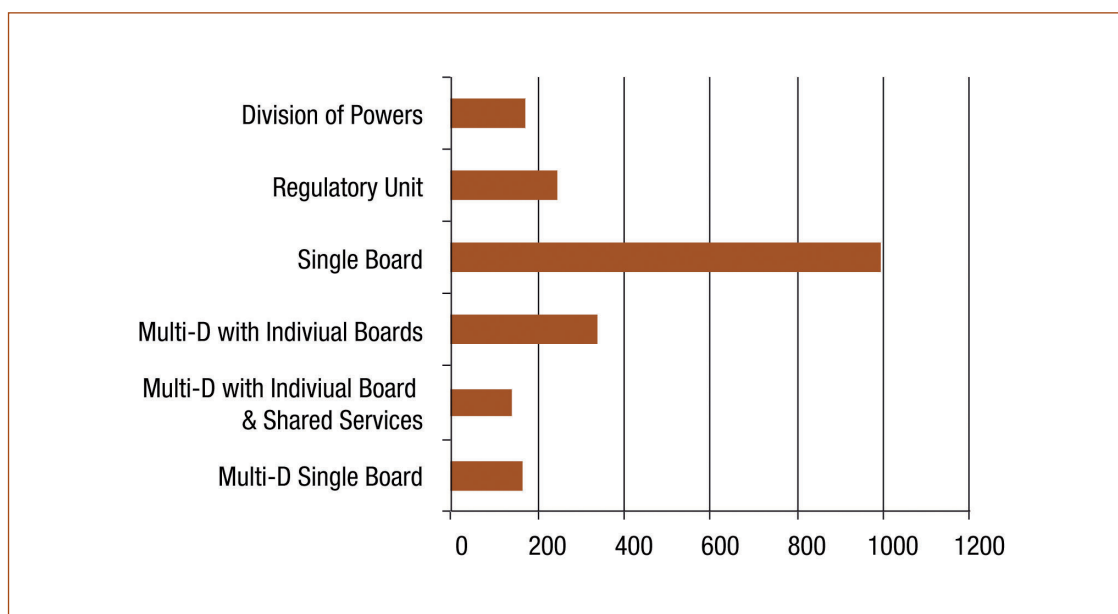
(Annex 6) sought to stimulate respondents to offer comments to be used to help interpret the data.

Figure 29 summarised the data relating to the models felt best suited to delivering the features of a high performing regulatory body. In summary format, it can be seen that the respondents felt that a delegated self-regulatory model had the greatest potential.

**Figure 29. Summary of responses relating to regulatory models**



As can be seen from the graph below, in general, respondents felt that a single board was most likely to provide the greatest potential to deliver the features of a high performing regulatory body. Additionally, multi-disciplinary arrangements with individual boards and shared services were thought to be least likely to achieve high performance. However, respondents, in response to the second round Delphi study, gave few comments on their thinking behind their choice of administrative approach. The final round instrument focused questioning to determine their rationale behind selecting the approach felt best suited to the specific feature.

**Figure 30. Summary of responses relating to administrative approaches**

## ROUND THREE DATA – DEFINING PROFESSIONAL NURSE REGULATION

The first section of the Round Three Delphi addressed the definition of professional regulation. A total of 39 respondents completed and returned the instrument. Respondents were asked to offer free-text comments relating to the redefined and elaborated definition.

Not all respondents offered comments on all sections of the instrument however a number of consistent points did arise from the third round Delphi in relation to the definition of professional nurse regulation:

- the elaborated format was felt to add significant clarity to the definition;
- mixed views on the length of the text were expressed. The majority of respondents felt that the length was about right. Some felt it was too long. Other suggested that further content should be added;
- three respondents requested that some reference to the autonomous role of the registered nurse should be included;

- a number of respondents suggested that there could be amendments made to improve the grammatical structure.

The above points and the underpinning detailed comments were considered carefully by the researcher and a number of changes have been made to the final version that can be found in Figure 31. A number of respondents did offer comments indicating that within their local context some further amendments would be required to adjust the definition to the specifics of the jurisdictional model, for example – “*We do not have licensed practical nurses*” (Respondent 031).

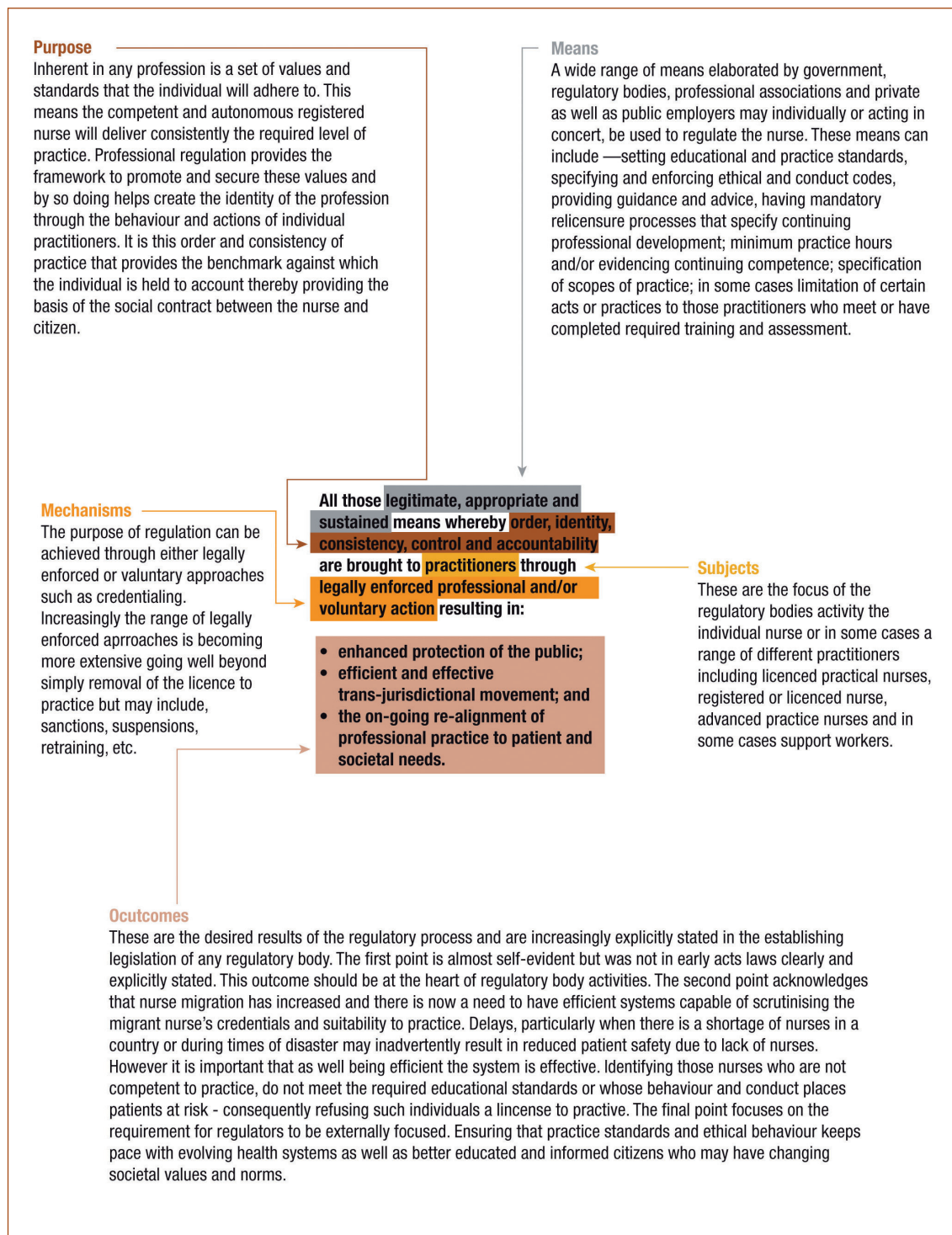
### ROUND THREE DATA – FEATURE OF HIGH PERFORMING REGULATORY BODY REVISITED

Two items from the Round Two questionnaires contained spelling errors and failed to reach the predetermined levels of consensus. As a result these were re-tested. However although one of the items (*The regulatory body instills sound moral values in registrants.*) did reach the required level of positive percentage consensus on all four criteria — desirability, feasibility, importance and confidence— the interquartile range on the criteria of feasibility was above the required level of  $\leq 1$ . Hence this item has been rejected from the final set of measures.

The second item that was re-tested (*The regulatory body consistently interprets legislation in a permissive manner thereby avoiding the need for new legislation.*) failed to reach both the level of positive consensus and the pre-set interquartile range on two of the measures – desirability and confidence. Hence this item has also been rejected from the final set of measures.

The Round Three questionnaire was in part designed to ascertain whether the modifications introduced as a result of the Round Two feedback resulted in consensus on the clustering of the various features of a high performing regulatory body under a set of themes. As can be seen from Table 29 both the percentage consensus and the interquartile range results indicate that the new approach was well received

**Figure 31. Final revised and extended definition of professional nurse regulation**



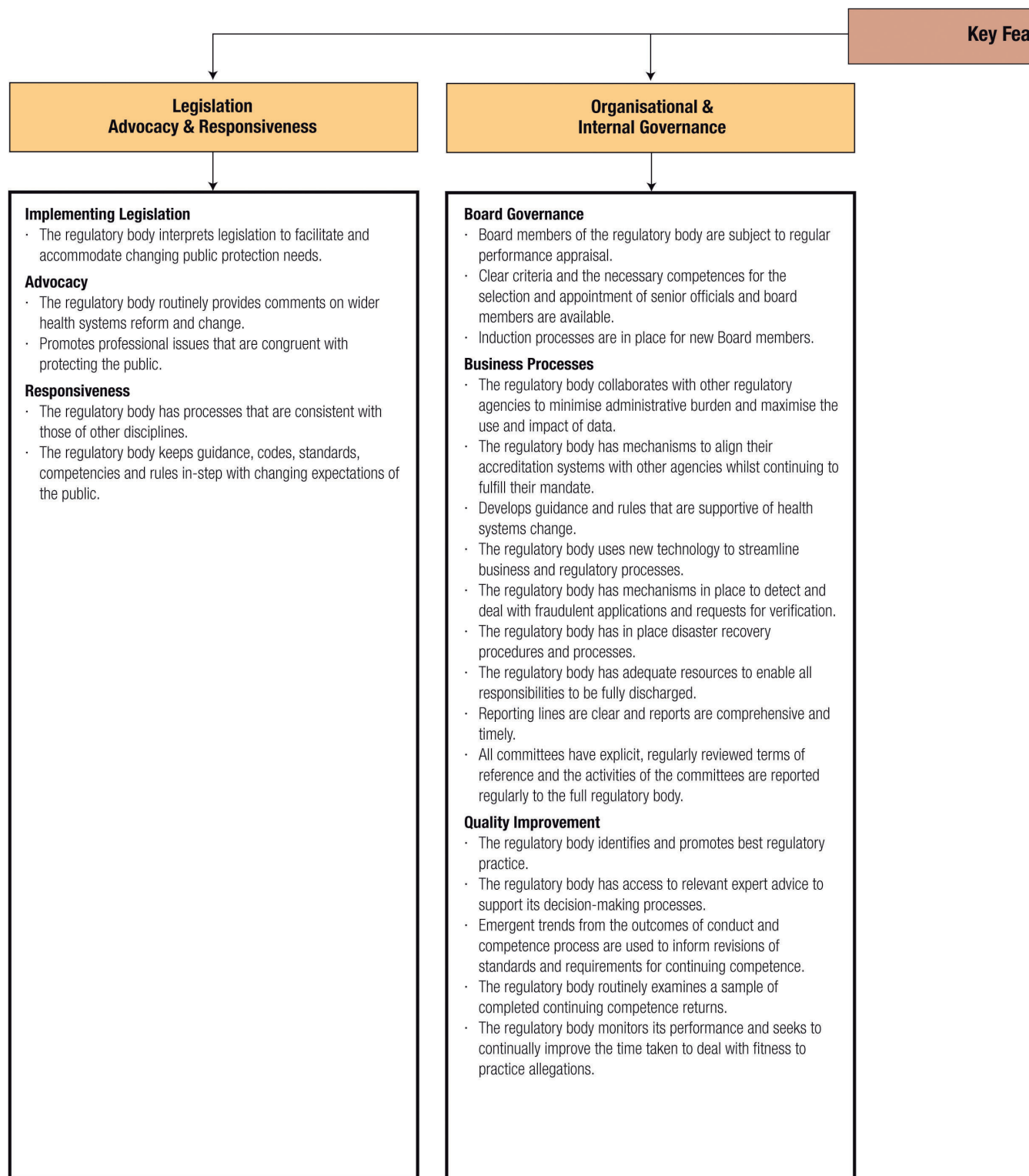


**Table 29. Quantitative results relating to round three thematic presentation of performance measures**

Statement	Response	Frequency	Percentage +Consensus	Inter Quar- tile Range	Median
The structure helps clarify the focus of the features	Strongly Agree	28	89,19	0	1
	Agree	5			
	Disagree	4			
	Strongly Disagree	0			
The major headings provide an appropriate classification of features ( <i>Legislation Advocacy &amp; Responsiveness, Organisational &amp; Internal Governance, External Governance &amp; Public Accountability and Responsibilities &amp; Functions.</i> )	Strongly Agree	22	86,11	1	1
	Agree	9			
	Disagree	3			
	Strongly Disagree	2			
The sub themes provide an appropriate classification of the detailed features	Strongly Agree	21	88,89	1	1
	Agree	11			
	Disagree	4			
	Strongly Disagree	0			

Whilst a small number of respondents (3) did suggest alternatives to the presented themes and one person offered a reordering of the subthemes there was not consistent opinion and therefore no changes further changes other than the removal of the two statements failing to reach the pre-set level on consensus are included in the final mapping presented in Figure 32.

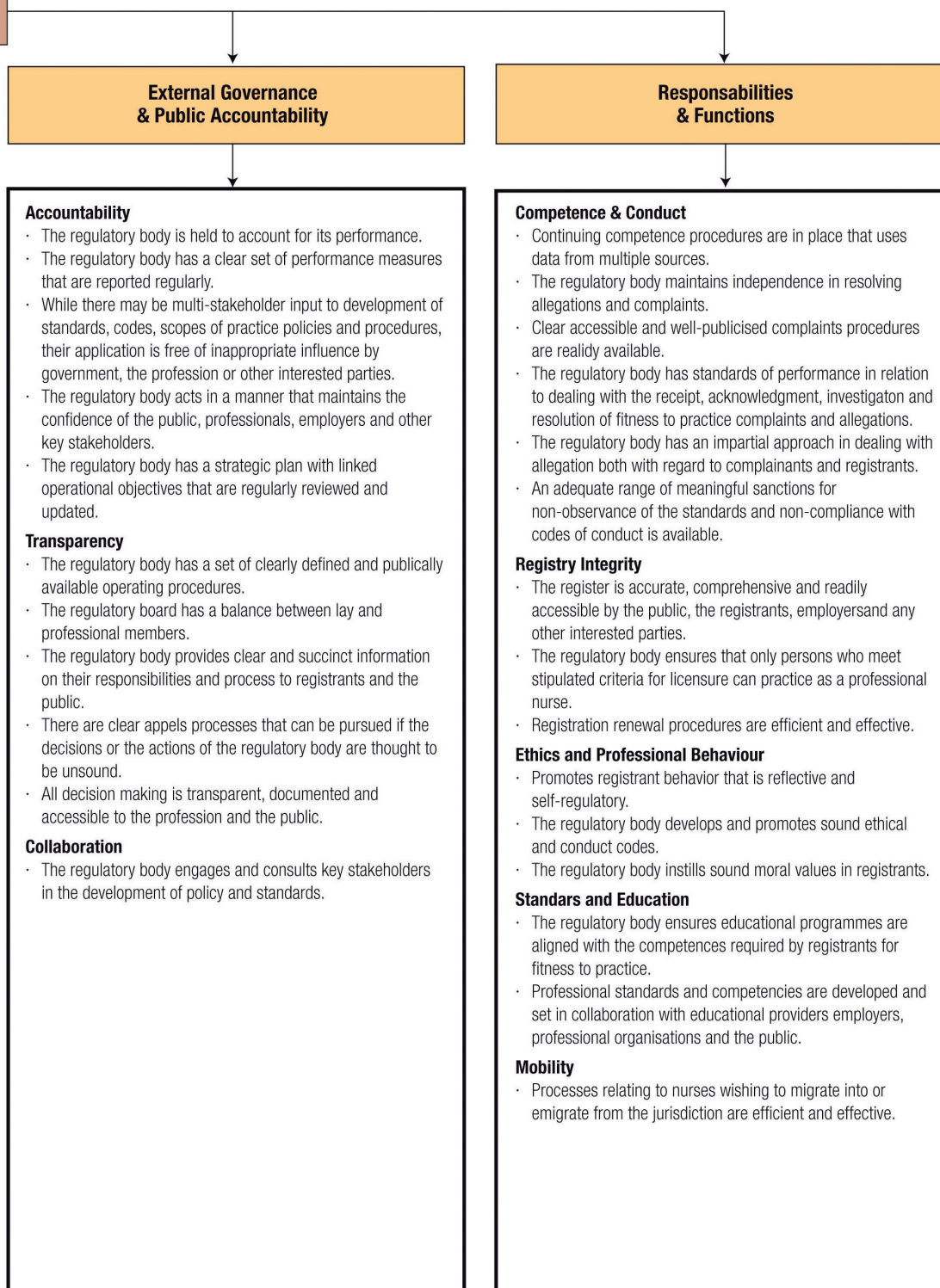
Figure 32. Final thematic mapping of the 47 key stat





## ement relating to high performing regulatory bodies

tures



## ROUND THREE DATA – MODEL OF REGULATION AND ASSOCIATED ADMINISTRATIVE ARRANGEMENTS REVISITED

Respondents appeared to have had great difficulty in offering critical comment on the individual items. Some general comments on the importance of various features were reiterated but on the whole respondents failed to elaborate on whether a particular model or administrative approach might be better suited to delivering the described aspect.

One position did appear to be consistently held by seven different respondents and is illustrated by the comments below:

*A well-defined single board with clear purpose and adequate resources would seem to be the most efficient administrative approach.*

**(Respondent 034, Government Based Regulator)**

*Although the multi-disciplinary boards are common in some countries, I don't know that they serve the public better than any single board. The accountability of a single board is clear as it is specific to the profession, and has a mix of members of that profession and the public. While in health it is expected that all professionals work together in teams focused on client/family centred care, they do so with their specific competencies, roles, accountabilities, which are the responsibilities of each profession to articulate, promote and ensure are in place at all times.*

**(Respondent 066, Educator)**

Despite the apparent reasoning, efficiency and serving the public better, all respondents limited the veracity of their positions by introducing a degree of uncertainty as indicated by the words highlighted by underlining inserted by the research in the above quotes.

A number of general points, also pointing towards a degree of uncertainty, were raised:

*I find this very difficult to explore without having the opportunity to discuss with colleagues who have experience in the various models. To me the model we have is often the result of government ideology rather than any explicit evidence on efficiency or effectiveness. Often it seems to me that it is the way that things have evolved.*

**(Respondent 015, Government Based Regulator)**

*Looking at the results of Round Two, I can't help but wonder whether there is an inherent bias since the respondents in general, and I am one of them, have advocated for the self-regulatory model. In short is this a product of professional marketing? With so few people having experience of different models I am concerned that we have simply responded on the basis of what we are most familiar with. Perhaps there is a need for further research that brings together face-to-face different experts so we can systematically explore the various features. I feel this would give much clearer insights.*

**(Respondent 040, Layperson)**

*To me, it (delegated self-regulation) includes the best dimensions of protection of the public but then again I am not aware of any definitive research that has measured the effectiveness of different models.*

**(Respondent 026, Professional Association)**

These comments seem to reinforce the conclusions reached by the research when examining the literature on this topic – namely; the field of professional regulation is much neglected and requires further research.







## CHAPTER 5 DISCUSSION

### EXPLORING AN INTERNATIONAL COMPARATIVE FRAMEWORK OF HOW THE PRACTISE OF NURSES IS REGULATED

The random stratified sample for this study was designed to maximise diversity but simultaneously remain within manageable limits. This required certain compromises to be made since certain variables were more common than others. This resulted in the sub-categories of the various variables being unequally distributed characteristics.

The researcher, based on his extensive knowledge of existing jurisdictional information and guided by the key attributes of interest, was able to select, by using a random stratified sample approach, from groups of jurisdictions with similar characteristics.

- For example both the United States and Canada have sub-national systems with the power to regulate health professionals residing at the State/Territory/Provincial level. The World Bank categorizes both Canada and the United States as high-income economies and both have legal traditions rooted in the common law approach. Despite these similarities there are differences between the various states and provinces, for example in the degree of autonomy granted to the council, the scope of their action, the degree of oversight and the extent to which nurse regulation is integrated with other disciplines.
- It is known that historic power relationships have also tended to shape regulatory architecture with many new countries inheriting the legislation of the day when independence was achieved from their colonial masters. Certainly, this historical influence can be seen in many of the old British Commonwealth countries where initial legislation was modelled on the extant acts of the day, for example, the Indian legislation which at the federal level remains in place up until now is the approach and structure used by United Kingdom legislation in force in the mid 1940's. Similarly, the late development of professional self-regulation in France, only coming into existence in 2008, has meant that many of the countries that were at one time governed by this country have underdeveloped or, indeed, no legislation currently in place.

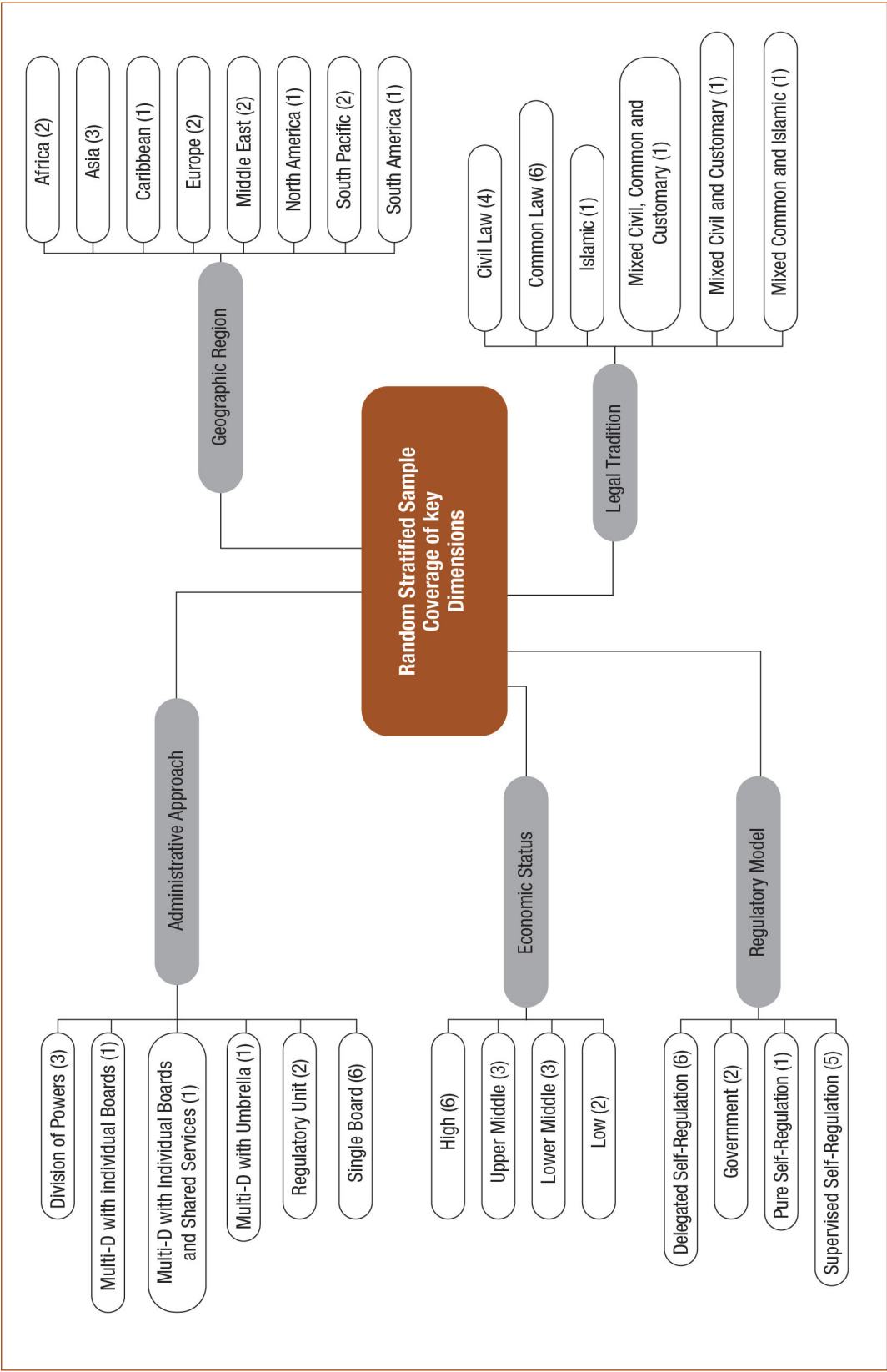
- These historical colonial links do not neatly fit with the regional attribute used to explore data in this study. For example, in the Caribbean, there are multiple historical colonial links, for example, to the Dutch, French, Spanish and English. The same can be said for Africa with the addition of the Portuguese. Indeed at this time there are no Portuguese African countries with nurse legislation in place (WHO Region for Africa, 2012). Keeping this in mind it is perhaps important to be mindful that new groups of power relationships, not based on colonial ties but perhaps on new trading relationships, are still being formed. In the case of countries applying for membership of a regional trading group they often have to revise and adjust their legislation to comply with sets of over-arching principles —the European Union is perhaps the clearest case of this. Other regional trading groups are evolving and in the case of nursing these arrangements (e.g. in the Caribbean developed under the auspices of CARICOM, in Asia as prescribed via the ASEAN agreement and to a lesser extent the emerging arrangements of the Gulf Collaborative Community)— all need to be considered in any future research. It is also important to note that many trade agreements are developed subsequent to existing nursing legislation and hence reference to these agreements may not be directly included in the extant nurse act. For example, the current nursing act for Jamaica fails to acknowledge the sophisticated set of agreements that have been implemented relating to a common nursing exam, shared code of ethics, joint approach to conduct relating to criminal acts, and core standards of practice. The basis for these agreements are located within an overarching piece of CARICOM legislation that is then, similar to the European Union transposition process, implemented via separate legislation by the countries who are signatories to the agreement (Ministry of Justice of Jamaica 1988, 1997).

Figure 33 does highlight that sub-categories relating to the variables of interest are unevenly distributed. This was to be expected and correlate well with the distribution of the frequency of the sub-categories within the total population. However, in some cases, a single example is used as the representative of the sub-category within the variable of interest. This does run the risk that an atypical example has been selected and as a result the findings generated may be aberrant.

Despite this potential weakness it would appear that the random stratified sample and the associated analysis have resulted in a relatively comprehensive comparative framework of themes (Figure 25). It is certainly true that some of the themes that have emerged from the analysis have relatively few examples coded to the nodes but despite this it was possible to conduct two specific additional assessments of the reliability, validity and comprehensiveness of the framework.



Figure 33. Breakdown of Random Stratified Sample of Sources against Key Attributes



Firstly, after a lapse of two weeks, the raw uncoded sources (laws, decrees and acts) were re-coded from scratch to assess differences between earlier and later coding. The evolving nature of the codes prevented achievement of identical results however the approach did provide an audit trail to help track the development and evolution of codes. Throughout this process, memos, whose main purpose were to record ideas regarding the development of the analytical framework and initial thoughts on how the various nodes relate one to another, were documented. The comprehensive framework that is displayed in Figure 25 in the results section was the product of this additional check on reliability of the analysis.

Secondly, by applying this developed comparative framework to previously published analysis of legislation conducted by the International Council of Nurses (1986), an analysis of the Australian state and territory based nursing legislation reported by Adrian (2006) and a series of papers published by the National Council of State Boards of Nursing (NCSBN 2011<sup>b-9</sup>) a test of saturation, validity and clarity of nodes was pursued. Since all data elements referred to in these studies can also be coded to the themes contained in Figure 25 it is reasonable to conclude saturation of the framework has been achieved, and due to congruence of content, that face validity is present. However, due to significant methodological weaknesses in all of the studies quoted – (they all failed to provide comprehensive definition of terms utilised) – a conclusive statement on clarity of nodes cannot be made. It is therefore important to note that the issue of node clarity is further addressed in the subsequent section relating to the lexicon of terms. Nevertheless, the work conducted in this study has significantly expanded the framework used to describe the ‘Model Act’ published by the International Council of Nurses (ICN, 2007b) and the legislative mapping included in the publication by Benton and Morrison (2009b) on the Role and Identity of the Regulator.

## **EXPLORATION OF KEY ATTRIBUTES**

This research was not designed to identify statistical correlations between attributes and the structure of the legislation in a definitive and predictive manner. Instead an explorative approach was used to identify and describe potential relationships that could form the basis for further research. To offer a definitive statement on whether statistically significant relationships exist, a study that utilised a much larger sample and also used a quantitative methodological approach, perhaps supported by logistical regression would be required.

Examination of the comprehensive framework did identify a number of nodes (themes) that seem to be influenced by the attributes – geographic region, legal tradition, administrative approach, regulatory model and economic status. However, great caution should be exercised in drawing conclusions from these observations. Since a relatively small random stratified sample was used, it must be acknowledged that these potential

relationships could be the result of random variation. In addition, two of the sources used in this study, the legislation from Australia and New Zealand, shared many similarities which it must be acknowledged may have more to do with additional features such as the presence of the Trans-Tasman agreement (a bilateral legal agreement between the two countries designed to facilitate movement of persons between the countries) and the consequent regular interchange of educators and civil servants who often are engaged in the drafting and revision of legislation.

Further examination of these key attributes is needed for a more definitive result on whether relationships exist, their directionality and strength. Some attributes will be easier to investigate than others. For example, on a regular basis the World Bank systematically examines the economic status of countries; indeed, they routinely publish both numerical and graphical data (Figure 34).

Similarly, data on the dominant legal traditions of the existing jurisdictions is also readily available (Figure 35). However, in the case of geographic region some countries do not follow a strict spatial definition of location but on occasion view themselves as part of multiple geographic or trading groups. Also the other two attributes considered – “Administrative Approach” and “Regulatory Model” – would require further basic research to categorise the jurisdictions since the approach used in this study has not yet been applied to the total population of jurisdictions.

Based on these observations, it is appropriate to recommend further research that systematically assesses and categorises all jurisdictions based on the approaches used in this study to develop two further global maps one of “Administrative Approach” and one of “Regulatory Models”. These maps, along with those for “Economic Status” and “Legal Tradition”, could be used to form the basis of a quantitative study into the presence, directionality and strength of the impact of these attributes on act content.

Alternatively, potential relationships could be further explored and augmented by adding further stratified randomly selected jurisdictional examples. By pursuing this additional analysis it would be possible to confirm or refute the existence of the propositions.

In some cases, the propositions were relatively simple and could be tested easily. For example, the researcher identified that there is an apparent relationship of Geographical Region relating to the “South Pacific” countries. However, this may not relate to geography of the jurisdiction but to some other yet to be identified variables. By controlling for the other key attributes and considering other examples from the region such as the jurisdiction of Kiribati or any of the other jurisdictions in the area, a more in-depth exploration of the “South Pacific” effect could be pursued.

Figure 34. Country income groups as defined by the World Bank (2012)

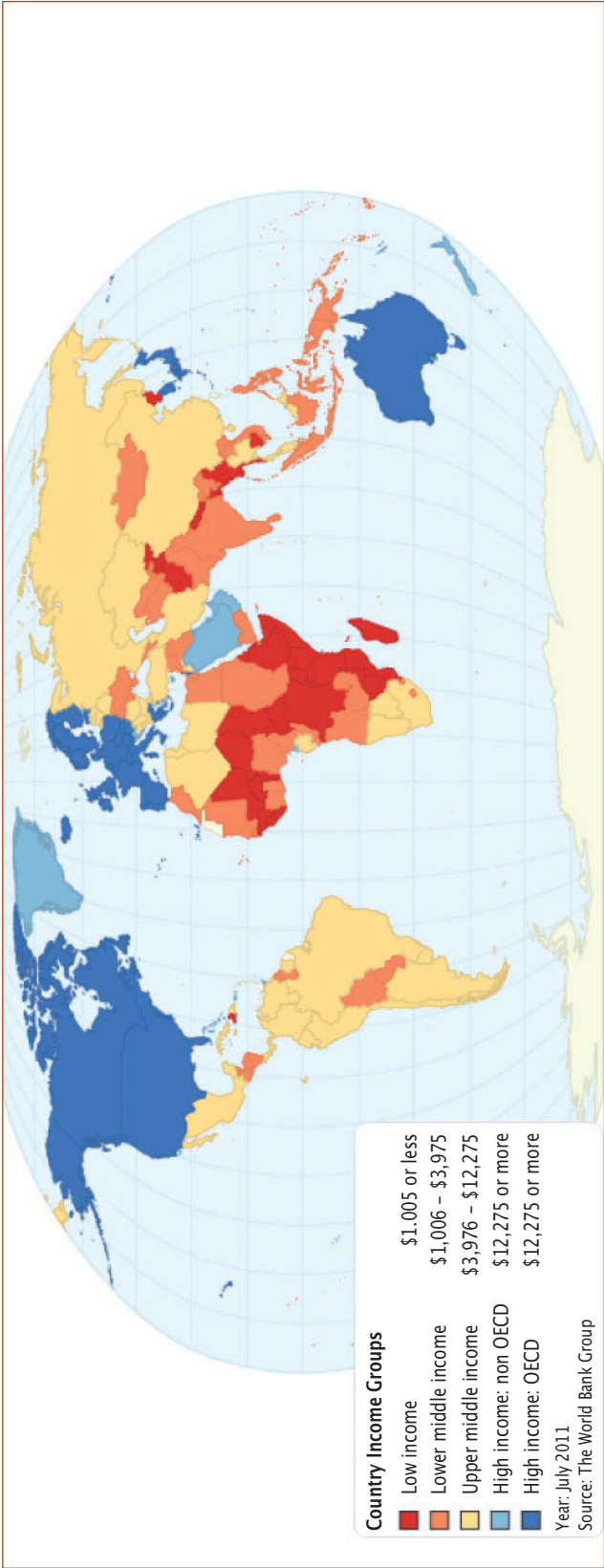
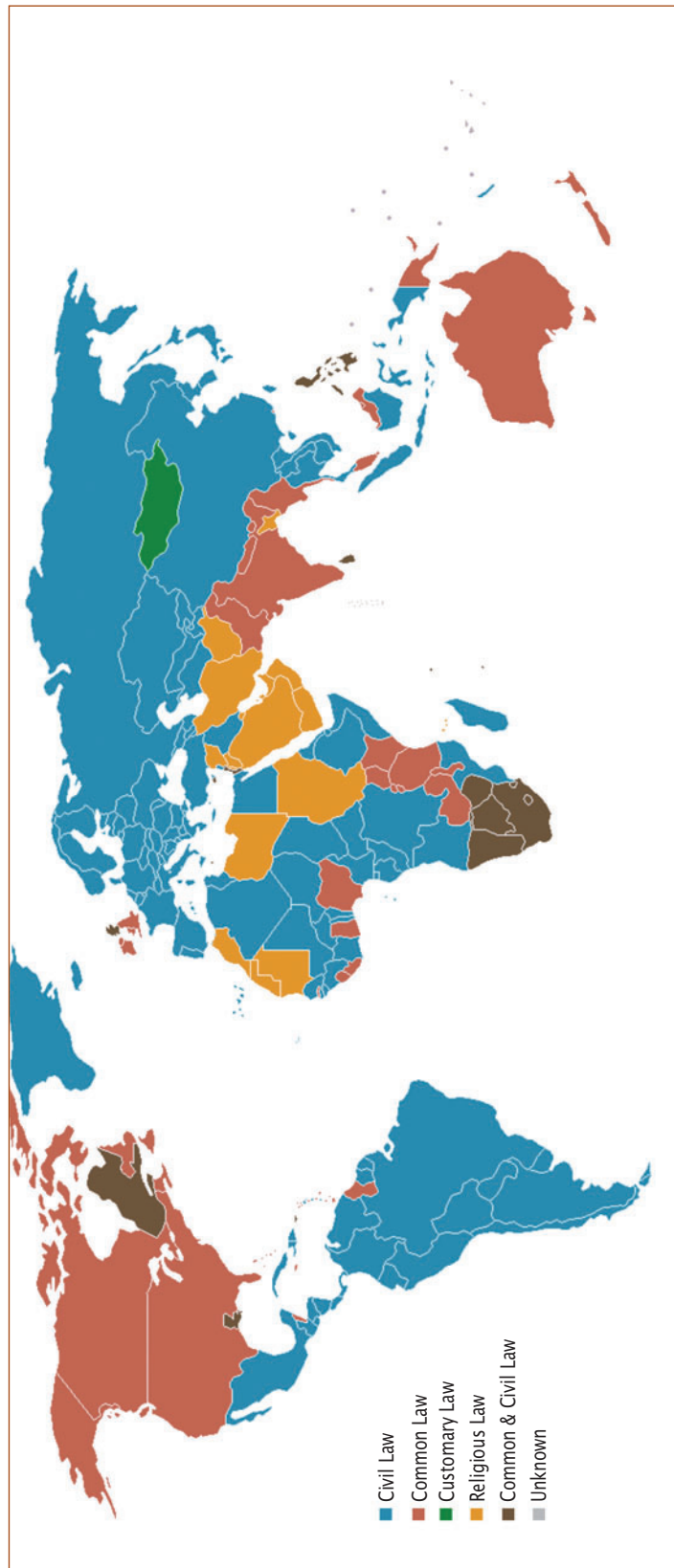


Figure 35. Dominant legal tradition of countries, Blackman and Srivastavan (2011) –  
(for greater specificity see Annex 12)



For some of the nodes, far more complex and multiply dependent relationships may exist and these would be more difficult to research. For example in relation to the node “Definitions” and based on the findings presented in the results section in this thesis, a single proposition or hypothesis could be formulated for further study, namely:

- Jurisdictions from the South Pacific, North America and the Caribbean who operate from a common law tradition and have legislation developed in the context of a multi-disciplinary individual board administrative approach with or without shared services are most likely to specify high numbers of ‘Definitions’ in their nursing legislation.

This proposition could be tested by identifying further legislation that meets these conditions, for example, in both Canada and the United States there are multiple jurisdictions since nurse regulation takes place at the State, Territory, Commonwealth or Provincial level. Those jurisdictions located in North America, are high income, come mostly from a common law tradition and some have legislation developed that uses the multi-disciplinary individual board approach to implementation. Hence if the proposition were true, then the coding of the legislation should produce a coding profile similar to that already described.

## LEXICON OF TERMS

Annex 8 provides a comprehensive lexicon of terms used to describe the nodes that make up the comprehensive framework. Where possible, terms already defined and compliant with the lexical structure format, as described by Scheffler (1968), were used and these are indicated by including a reference to the source in the definition provided in Annex 8.

Several researchers have identified that the lack of consistent use of terms is problematic particularly since nurses are such a mobile group and often seek to gain recognition of their qualification by a jurisdiction different from the one where their initial registration was obtained (Pew Health Professions Commission 1995a,b; Casey, 2008; Benton and Morrison, 2009a,b). However, despite the importance of the issue, current lexicons of terms are found deficient for a number of reasons (Benton et al., 2013<sup>9</sup>).

The current ICN (2005) lexicon provides a limited list of technical terms (92 definitions) and in some cases, multiple definitions of a particular term are given for example, “Advanced Nursing Practice” cites four versions and in total 42 of the 92 definitions have multiple versions (46%). Also the ICN (2005) lexicon fails to either synthesize the various definitions into a compound version or at least indicate which of those available is the “preferred” or “endorsed” term for international use. In addition, the ICN (2005) lexicon tends to focus on professional responsibilities and regulatory function with only minimal coverage of administrative, governance and wider educational terms.

The International Confederation of Midwives (2011) has also produced a glossary of terms consisting of 73 definitions. Each definition is subdivided into three potential parts – *Generic Definitions Used in ICM Documents*, *Specific ICM Regulation Glossary Terms*, and *Specific ICM Education Glossary terms*. Only two definitions have all three parts completed, but in these cases the second and third elements only give specificity. For example, in the case of “Assessment” see Table 30. Additionally, the value of this glossary is limited since it would appear that these definitions are only directed towards ICM documents rather than in the case of ICN where the intention is to inform government and those seeking to influence legislation *per se*.

**Table 30. Example taken from ICM (2011) Glossary of Terms**

Assessment	
<b>Generic definitions used in ICM documents</b>	A systematic process/procedure for collecting qualitative and quantitative data to measure, evaluate or appraise performance against specified outcomes or competencies
<b>Specific ICM regulation glossary terms</b>	<u>Assessment of midwifery practice</u> : the systematic procedure for collecting qualitative and quantitative data to assess performance, progress or practice decisions/actions in relation to standards and/or competencies.
<b>Specific ICM education glossary terms</b>	<u>Assessment of student learning</u> : The processes used to evaluate student performance and progress in achieving learning outcomes and demonstrating required competencies.

A number of more specific issues emerged from the analysis of the definitions, for example, in relation to mutual recognition it can be seen that this aspect is inadequately addressed both within the relevant sections of the act and in terms of definitional precision. The World Trade Organisation (2012) has provided a comprehensive list of terms associated with trade and mutual recognition that can be used to assist in ensuring that terms used both in nursing jurisdictional laws and in related areas remain consistent.

It is evident from the results section on “Responsibilities and Functions” that there is considerable variation in the level of educational preparation, the institutional processes and the means by which accreditation takes place. The ICN (2005) lexicon of terms does offer a range of pertinent definitions but with recent developments such as those relating to the Lisbon and Bologna Agreements and the Tuning Process (Ministry of Education and Research, 2005) a revision of relevant education related terms would seem timely. The need for this revision is perhaps reinforced by observations made by



the higher education sector that are often frustrated by the lack of consistency between the use of terms by higher education and the professional, statutory and regulatory bodies (Higher Education Better Regulation Group, 2011a). Indeed, from data provided from one United Kingdom based study, the higher education sector noted that they deal with 139 different professional, statutory and regulatory bodies that use different terminologies often for the same or similar issues (Higher Education Better Regulation Group, 2011b).

Both the Council on Licensure, Enforcement and Regulation (CLEAR, 2010) and the National Organisation for Competence Assurance (Durley, 2005) have developed a glossary of terms. In the case of the glossary developed by CLEAR (2010), information has been sought from international sources and these go beyond those related to nursing and include material from other regulated disciplines. The work of Durley (2005) is, however, much more narrowly focused on credentialing, which is a subset of the material covered in this research. Despite these weaknesses, both CLEAR (2010) and Durley (2005) offer examples of an important feature that needs to be included in any comprehensive lexicon of terms that of synonyms.

Before synthesising the above points, it is important to reiterate a specific finding identified by this research. Currently a significant percentage of the terms “Defined” in extant legislation lacks precision and often relies on a stipulative definition, 42%, or a circular definition, 36%. Only just over one in five definitions use a lexical format, 22%. Guidance on constructing definitions that facilitate information exchange can be found in other sectors. The International Standards Organisation (2004), although targeted at the information technology sector, offers useful guidance that could be used to enhance clarity of terms and processes. Although the full guidance is lengthy, the key points that would be useful within this context are that a definition must:

- be stated in the singular;
- state what the concept is, not only what it is not;
- use dictionary style, i.e. a descriptive phrase or sentence(s) but without an opening article (a, the, etc);
- contain only commonly understood abbreviations;
- be expressed without embedding definitions of other underlying concepts but referencing the term family where appropriate;
- not include the term or its synonym/s or abbreviations or other forms (noun instead of verb) in the definition;
- be concise and unambiguous using language appropriate for the context where the definition will be used;



- be able to stand alone – rationale, functional usage, examples belong in guidance notes/educational material.

Synthesising all of these points and keeping in mind the need to provide international clarity of terms, it is suggested that, as a matter of urgency, the International Council of Nurses revise its current lexicon of terms. This work should draw upon the findings of this research; augment the material with the sources identified above; be guided by the criteria specified by the International Standards Organisation (2004); and use a lexical definition format for all terms and processes. Where any synonyms exist these should be clearly identified. ICN could then use the new document to promote normative change on future regulatory legislation, offering a means of better protecting the public, and streamline the process of credential recognition across jurisdictional borders.

This updated lexicon of terms should then be promoted:

- as a means of facilitating timely assessment of applicants who wish to practice in a jurisdiction different from the one where they were originally educated and initially licenced to practice;
- as the basis for bringing consistency and clarity to the specification of key terms in the development or revision of nursing legislation.

Finally, in relation to the theme of ‘bringing clarity’, it is interesting to note that those who advocate for the creation of multi-disciplinary umbrella legislation suggest that such an approach can make it easier for the public to interact with the systems especially when they wish to complain. It would appear from the analysis of legislation presented that, in an attempt to bring consistency across professions, a higher degree of imprecision has been introduced. It may be that this imprecision through the use of higher percentages of stipulative or circular definitions resulted from the need to find compromises between the various regulated groups or alternatively in a deliberate attempt to offer the possibility for advisory boards to interpret the terminology. Irrespective of the reason, the result is the same – the introduction of potential inconsistency due to lack of precision in definitions.

## **DELPHI STUDY RESPONSE RATE**

The response rate to this study reached the upper limits of what could have been expected for this type of study design. Gordon (1994) suggested Delphi studies typically attain a response rate of 40 to 75%. Accordingly, this exploratory analysis can be considered as offering a good basis upon which to reach definitive conclusions. Indeed, when comparing the response rate to that achieved by McAtee (2009), who attained only a 22.3% response, using a single questionnaire design, a much narrower aspect of

regulation albeit with a wider group of regulatory bodies, then the response rate in this study is considerably higher. Certainly comparing the response rate for this study with two other three-cycle policy Delphis which attained 47%, 52% & 43% and 36%, 40% & 35% per cycle per study and whose response rates were reported by Skulmoski et al (2007) as 'remarkable', then it is reasonable to suggest that the subjects in the current study were motivated to respond. This high level of response is thought by the researcher to be attributed to the careful construction of the introductory letter and the ongoing phrasing of communication through the various Delphi rounds that diligently followed the recommendations made by Slocum (2005) and Turoff & Hiltz (1996). The researcher also suggests that sending reminder e-mails three days before the due date for responses may have contributed to the good response rate.

Although there were high levels of response to the first and second round Delphi instruments (61% and 63% respectively) there was some reduction in response rate in the third round (52%). Keeny et al (2001), Sharkey (2001) and Williams and Webb (1994) have all documented this phenomenon which, according to these authors, indicates a classic symptom that respondents are starting to disengage from the study. The authors suggest that, in terms of the time taken to complete the instrument respondents are no longer attaining the same level of personal benefit from participation. The researcher did anticipate this reduction since, at the end of round two, a number of respondents indicated in their general comments to the round two instrument that the time taken to complete the instrument was considerable:

***It has been very hard to answer because of the need to read many times the items, understand their precise meaning and look for the best dimension value. SORRY! I felt overwhelmed by the amount of work.***

***(Round two – Respondent 024)***

and

***I found this multi-dimensional matrix difficult and time-consuming to complete on-line, and I wasn't prepared to print, complete it and then insert the ratings.***

***(Round two – Respondent 066)***

Nevertheless, the response rate was still sufficient to obtain meaningful results that certainly contributed to a more in-depth understanding of professional regulation and the performance of regulatory bodies as discussed in the following sections.

## WHAT DO WE MEAN BY REGULATION?

Black (2008) reminds us that the study of regulation is fraught with definitional dangers and states:

*Commentators on regulation and governance, like English speakers in the UK and the US, are sometimes separated by a common language.*

With this warning in mind and in keeping with sound research method, the need to clearly define the field of study is an essential step if the findings of this and other studies are to add coherently to our knowledge base. Accordingly, there is a need to examine alternative definitions of regulation and compare and contrast them with the version developed via the three round Delphi study.

Black (2008) helpfully offers a definition of regulation:

*By regulation is meant sustained and focused attempts to change the behavior of others in order to address a collective problem or attain an identified end or ends, usually through a combination of rules or norms and some means for their implementation and enforcement, which can be legal or non-legal.*

(Underline inserted by researcher to assist  
in exploring the definition)

Careful analysis of this definition, which relates to regulation in general rather than the more specific area under investigation in this work – ‘Professional Regulation’ – provides an opportunity to compare and contrast the architecture of the two definitions.

First, ‘sustained’ implies an enduring activity – one that applies over time rather than a one-off event. This was a gap that existed in the previous ICN definition as developed by Styles and Affara (1997). Secondly, ‘focused’ in collaboration with ‘to address a collective problem’ and ‘attain an identified end’ highlights the directed and purposeful nature of regulation. Thirdly, the directed and purposeful action is target towards ‘change of behaviour’ in ‘others’. That is pursued, fourthly, through ‘a combination of rules or norms’. Then, fifthly, enacted via a ‘means for their implementation’. In turn this is then supported by a mechanism of ‘enforcement’ that can be either ‘legal’ or ‘non-legal’ in nature. These features in the definition provided by Black (2008) are mirrored in the revised definition proposed in the results section.

In the United Kingdom, the Better Regulation Taskforce (1998) offers a simultaneously narrower, broader, less precise, more inclusive definition:

**“Any government measure or intervention that seeks to change the behaviour of individuals or groups”.**

(Underline inserted by researcher to assist  
in exploring the definition)

Like Black (2008), the Better Regulation Task Force (1998) definition agrees that regulation is directed and purposeful in relation to behavioural change. This latter definition is broader in that regulation can be enacted by ‘measures or interventions’ – rather than being restricted to the use of norms or rules. However, unlike Black (2008) who is silent on the issue of who exercises the power of regulation, the Better Regulation Taskforce (2008) limits this power to ‘government’. Both Black (2008) and the Better Regulation Task Force (1998) see regulations as applicable to ‘individuals or groups’ although Black (2008) uses the less precise formulation ‘others’.

There are many other definitions that could be examined (Martin and Buckley, 2003; Selznick, 1985; Baldwin et al., 1998) but the two above offer a sound basis upon which examination of the more specific area of ‘Professional Regulation’ can be examined.

## **Occupational Regulation**

The Australian National Training Authority (2004) defines occupational regulation as:

**“Including any form of regulation that restricts entry to an occupation or a profession to those who meet competency related requirements stipulated by a regulatory authority.”**

(Underline inserted by researcher to assist  
in exploring the definition)

The definition by the Australian National Training Authority (2004) contains a number of features. It makes it clear that this form of regulation starts to specify a particular purpose to ‘restrict entry’ to an ‘occupation or profession’. It also indicates that this is done by setting ‘competency related requirements’ and that these can utilize ‘any form of regulation to do so’. However, this definition, whilst being inclusive in the form of regulation to be used, does beg the question whether there may be other mechanisms beyond those that are ‘competency related’ that may be used to restrict entry, for example, age related or having known criminal records as is the case in some jurisdictions for nurse registration. Indeed, Moore and Tarr (1989) go further by pointing out that:

***Occupational regulation is not confined to restrictions upon entry but embraces also all the rules that regulate the manner in which a particular occupation is to be pursued and the controls upon practitioners.***

This extension is significant as it highlights the ongoing processes that can control and influence practice and is similar to the idea introduced by Black (2008) of an enduring or sustained process.

## **Professional Regulation**

The introductory chapter of this thesis commenced by citing the frequently used definition of nurse professional regulation by the International Council of Nurses (Styles and Affara, 1997) as:

***“All of those legitimate and appropriate means — governmental, professional, private, and individual — whereby order, identity, consistency, and control are brought to the profession. The profession and its members are defined; scope of practice is determined; standards of education and ethical and competent practice are set; and systems of accountability are established through these means.”***

***Styles and Affara (1997)***

This of course is by no means the only definition of professional regulation, for example the Department of Health in England stated, when reviewing the regulation of non-medical healthcare professionals, including nurses and midwives, that professional regulation is:

***“The set of systems and activities intended to ensure that healthcare workers have the necessary knowledge, skills, attitudes and behaviours to provide healthcare safely”.***

***Department of Health (2006)***

The second definition by the Department of Health (2006) is much narrower than that by Styles and Affara (1997). However, as has been reported in the results section of this thesis, the definition by Styles and Affara although quite comprehensive does fall short of what was seen as needed for today's purposes. This further comparison with other definitions confirms that the new definition and associated elaborations under the headings of “Purpose”, “Means”, “Subjects”, “Mechanisms” and “Outcomes” fully encompasses all

the elements identified across the nursing, professional, occupational and general regulatory literature cited. Whilst each of the above-examined definitions fell short in one or more of the aspects identified, the definition developed through this research now contains all elements with no omissions. However, this does mean that some view the final definition as overly long. This could nevertheless be addressed using e-publishing techniques that insert the additional explanatory narrative as an associated 'pop-up' window that only appears when the reader wishes additional information.

## FEATURES OF A HIGH PERFORMING REGULATORY BODY

The research has provided an important basis for examining the performance of regulatory bodies. The fact that such a diverse range of experts could agree on the key features is both remarkable and reassuring. The subsequent clustering of the 47 statements under four main themes with 14 sub-themes not only provides potentially important avenues for further research but also a pragmatic foundation for developing a means of assessing the comparative performance of regulatory bodies across jurisdictions. Although beyond the scope of the current research study, Table 31 provides an illustrative example of how one of the 47 individual statements could be further developed to provide a metric for regulatory body performance. Each metric would require an agreed and easily understandable explanation of the statement. There would need to be recognition of any related statements and how to differentiate the statement under consideration from the related elements. Performance would need to be scored against a series of level indicators – each with their own description so as to ensure reliability of scoring.

**Table 31. Illustrative example of metric for a specific statements**

<b>Statement</b>	<b>Continuing competence procedures are in place that use data from multiple sources.</b>
<b>Context</b>	This statement is part of the responsibilities and functions cluster and specifically relates to those measures relating to Competence and Conduct.
<b>Exclusions</b>	This statement should exclude any actions relating to the assessment of competence associated with initial registration and licensure.

<b>Level of Performance</b>	<b>Description of how to score performance</b>
<b>Outstanding Performance</b>	<ul style="list-style-type: none"> <li>The regulatory body conducts and publishes research on the continuing competence activities of registrants in an aggregated format.</li> </ul>

	<ul style="list-style-type: none"> <li>• The regulatory body conducts correlation studies with the continuing competence activities used by registrants and their roles and functions.</li> <li>• The regulatory body has examples of best practice that they promote and share with peers, governments and their registrants.</li> </ul>
<b>Superior Performance</b>	<ul style="list-style-type: none"> <li>• In addition to meeting the requirements for adequate performance the body also delivers the following.</li> <li>• The regulatory body uses the results of competence and conduct cases to issue guidance to registrants on topics that they may wish to consider as part of their continuing competence activities.</li> <li>• The regulatory body considers the changing population demographics and strategic health and social policy documents to help shape guidance to registrants on how to meet continuing competence requirements.</li> <li>• The continuing competence system is fully computerized with registrants being able to submit and upload their evidence via a web portal that can be reviewed by the registrant via a user name and password feature.</li> </ul>
<b>Adequate Performance</b>	<ul style="list-style-type: none"> <li>• Legislation is in place and the regulatory body has developed, implemented and publicised process with which registrants must comply.</li> <li>• The regulatory body is able to identify those nurses that are in compliance with the required legislation.</li> <li>• The regulatory body takes systematic action against those nurses that do not comply with the required process.</li> </ul>
<b>Inadequate Performance</b>	<ul style="list-style-type: none"> <li>• The legislation does not currently have provision for continuing competence assessment.</li> <li>• The legislation has provision for continuing competence assessment but this has not been implemented.</li> </ul>

Assessment of a regulatory body either through self-assessment or through a peer-to-peer process would provide an opportunity to identify both strengths and weaknesses. Weaknesses would offer an opportunity for performance improvement. By promoting examples of outstanding performance, peers may be able to benefit from the experiences of other jurisdictions.

The development of a set of metrics could also offer a useful addition to the induction programme of new staff and board members providing direction in terms of content and focus for orientation programmes.

In terms of identifying a model and associated administrative approach most likely to deliver high performance across the range of features, it is clear that whilst there is a clear preference by the panel of experts for the delegated self regulator model followed by both the pure and supervised self-regulatory models delivered via a single Board structure, the underlying rationales for such a choice remain far from clear. This result – bearing in mind that nurse regulation, as argued earlier, is a sub-set of regulation per-se – might have been anticipated based on the work of Maggetti (2010) who when reviewing the wider domain of regulation noted –

***After 40 years of impact assessment in the United States and the subsequent development of the European regulatory state in existence for more than two decades, there is still no clear-cut evidence concerning the results of regulatory reforms and regulatory agencies' performance. The few studies examining agencies' performance while helpful for building detailed country-specific knowledge, have led to mixed and inconclusive results.***

The country specific knowledge of regulatory systems was indeed a point highlighted by several respondents in this current study and based on the below quote seems to point to a major gap in the knowledge base of those that regulate nursing, that is

***Although I have many years of experience in working with nurse regulation I found it difficult to differentiate between the models and administrative approaches since my in-depth knowledge of the system operating in my own jurisdiction made it difficult to see how other approaches might work either better than or worse than the one I know.***

(Respondent 035 – Regulator, upper middle-income country with common law legal tradition)

and speaking about completing the part of the questionnaire relating to the models and administrative approaches –

***This is really tough to do! The only models that I am familiar with are the one we use in our country and to a lesser extent autonomous self-regulation, which can be read about in the literature.***

(Respondent 001 – Nurse educator and board member of regulatory body, lower middle income country with Islamic law legal tradition)

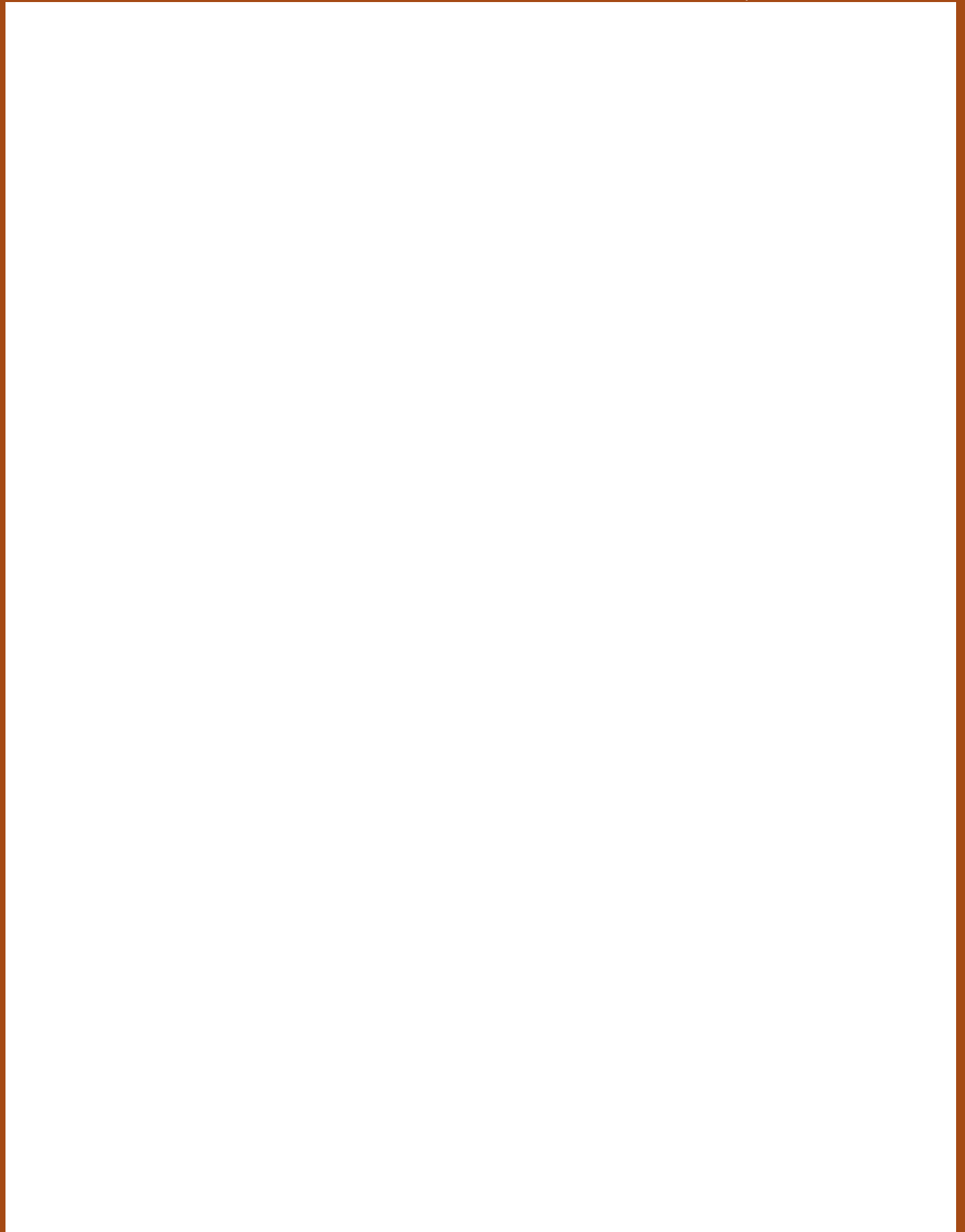


With such a gap in knowledge, it is unsurprising that informed and objective critical commentary on the various models is difficult to obtain. This echoes and amplifies the conclusions reached by the researcher earlier when commenting on the paucity of studies on this important topic. Not only is there little research on this important topic but also national experts tend to have restricted understanding of models other than the one operating in their own jurisdiction.

This, the research contends, reinforces not only the importance of this study but also the need for additional research that can build on the foundational findings presented in this thesis.

Building on the suggestion made earlier, it could be possible to utilise data from the self or peer assessments of performance that a fully developed instrument would generate to conduct a quantitative correlation study of performance against the models and administrative approaches. Although this is beyond the scope of the current research, such an investigation could make a valuable contribution to an ongoing programme of research in this neglected area of study.







## CHAPTER 6 CONCLUSIONS

1. Hitherto this research, nurse regulation has been predominantly based on the work of **Fadwa A. Affara and Margaretta Madden Styles**, which for three decades has stood as the internationally accepted benchmark and provided both the accepted definition of nurse regulation as well as the principles upon which nursing regulation has been based.
2. I believe this research study constitutes a **major contribution to the understanding of nurse regulation at international level** and broadens and updates the seminal work established by Affara and Styles. Therefore, **this Thesis offers new foundations for the future since it provides a new definition of professional nurse regulation** to ensure public protection and to guide nurse legislation.
3. **As Chief Executive Officer of the International Council of Nurses**, it is essential that the findings of this study be integrated into the key ICN policy documents. These serve as guidance for governments and for institutions such as the World Health Organization in their efforts to establish a framework for the future.
4. The principles identified will assist governments in identifying the need for nurse regulation and now include current thinking relating to best governance practice.
5. **The glossary of terms** (lexicon) provides the foundation for international collaboration between different jurisdictions.
6. **Open systems theory** has proved to be a powerful tool for analyzing trends in regulation. It is a framework that can facilitate monitoring of change over time and can also serve as a vehicle for conducting international comparative analyses.
7. The documentary analysis offers a **comprehensive map of the architecture of nurse regulatory legislation**, thereby providing an enhanced model for drafting new legislation and for reviewing and amending existing laws.
8. By determining the main characteristics of high-performing regulatory bodies this Thesis affords a unique opportunity **to improve regulatory body functioning**. At the same time, it offers governments a basis for determining and implementing, based on international consensus, the best regulatory model and administrative arrangements.

- 9. This Thesis draws attention to a number of major shortcomings in the understanding of the regulation of the nursing profession,** notably with respect to low-income jurisdictions, Islamic and civil law based jurisdictions and to the paucity of material from Asia, Africa, the former Soviet Union, Central and Latin America.
- 10.** Thanks to this pioneering study, it is now possible to explore the potential impact of such dimensions as the income, legal tradition and geography of jurisdictions as well as that of mutual recognition agreements in terms of the structure and functioning of legislation on the nursing profession.
- 11. This Thesis has already started to address the identified scientific gap and shortcomings in our understanding of the regulatory process and its supporting evidence base.** Four research articles have already been published, three of them in high-impact journals. Three other articles have been accepted and will be published in scholarly journals in July and September 2013, and three more are in various stages of development.
- 12.** This Thesis constitutes a fundamental contribution in this area of research, as well as the starting point for a comprehensive future programme of research.

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