Workforce Development Report for Aotearoa College of Diabetes Nurses (ACDN) 2015

Prepared by Liz Allen/ACDN Membership & Workforce Development Committee Member

**Background:** The need for workforce development planning was raised by a member at the ACDN 2014 AGM and it was agreed by the incumbent Committee that this issue was to be a priority for the coming year. Following my appointment to ACDN Committee at that same AGM, I volunteered for the lead role in this issue. My report was prefaced by a power-point presentation to members at the recent AGM in May 2015.

**Purpose:** to inform the ACDN Committee and membership of the current status of our workforce resource and development needs to enable structured, appropriate and collaborative resource development strategies for the future. Although the ACDN Committee Workforce Development role is largely analytic and advisory, some recommendations for coordination of educational resource and financial commitment will be concluded. The data can also be used to inform relevant providers and partners in healthcare, such as NZNO, DONs, NZSSD, DHBs, MOH, of existing inequities and barriers to workforce development in diabetes care and to lobby their support.

**Epidemiological statistics for Diabetes in NZ:** The 2013 NZ Census statistics for People with Diabetes (PWD) totalled 243,125 of whom 68% were Pakeha or non-Maori/ Pacific Island/Indian; 14% were Maori; 11.5% were Pacific Island and 5.7% Indian. It is well known that the latter three ethnic groups are not only predisposed to developing Type 2 diabetes, but also have more adverse health outcomes.

**Need’s Analysis:** The initial focus was to establish a needs assessment process for priority populations of PWD. As health service funding and delivery is divided regionally across 20x District health Boards (DHBs) it seemed logical to use this framework for analysis.
Initial analysis looked at the prevalence (total number) of people with diabetes (PWD) per DHB. The “Big Five” urban cities dominated, as is to be expected due to their overall population size.

<table>
<thead>
<tr>
<th>DHB</th>
<th>No’s PWD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counties Manukau</td>
<td>37,140</td>
</tr>
<tr>
<td>Waitemata</td>
<td>28,845</td>
</tr>
<tr>
<td>Auckland</td>
<td>25,697</td>
</tr>
<tr>
<td>Canterbury</td>
<td>21,364</td>
</tr>
<tr>
<td>Waikato</td>
<td>20,231</td>
</tr>
</tbody>
</table>

Table 1: DM Prevalence by population


This then raised the question of what defines highest need in NZ healthcare today? Perhaps not?
Map 2: Waitemata Population density

Furthermore, the MOH’s stated priority of reducing inequities in health outcomes for Maori also requires consideration, alongside MOH Quality Standards for Diabetes Care (MOH, 2014). The latter indicate the need for equitable access to quality diabetes care for all PWD.

Table 2: %DM pop who are Maori

Analysis of data related to epidemiological incidence by % DM pop (Map 3) and social deprivation indices relating to poor health outcomes (see map4), paint quite a different picture of need to that of prevalence alone. In fact, they almost mirror one another.
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Map 3: %Pop with Diabetes per DHB

Deprivation Index (2013) by Meshblock

- It was concluded that these three factors, high % DM population, high deprivation and high % Maori population, more accurately indicate high need in diabetes healthcare today due to poor health outcomes. It is also apparent, from the mapping process, that these three factors overlap in the some DHB regions ...namely Tairawhiti, Northland, Lakes District, Hawkes Bay, Bay of Plenty and Whanganui.
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**Resource Assessment:**

The next task was to assess our current resource status and distribution. The need for currency and accuracy in membership data was identified. A review was initiated from the AGM 2015. Furthermore, general membership of ACDN alone, was not considered a reliable indicator of diabetes level of practice or experience. However, the ACDN Accreditation process, which incorporates both Nursing Council approved Professional Development & Recognition Programmes (PDRP) and the National Diabetes Knowledge and Skills Framework (NDNK&SF), is a robust assessment process of diabetes nursing practice, as is the more recent Diabetes Nurse Prescriber process.

<table>
<thead>
<tr>
<th>Current Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current membership stats (approx due to fluidity of workforce)</td>
</tr>
<tr>
<td>Total membership: 399 approx</td>
</tr>
<tr>
<td>Maori Membership: 46 (11.5%)</td>
</tr>
<tr>
<td>Accredited Nurse Specialists: 65 +/-</td>
</tr>
<tr>
<td>Designated Diabetes Nurse Prescribers &amp; NPs: 35 +/-</td>
</tr>
</tbody>
</table>

**Table 3: Current DN Workforce by Qualification**

**Current Resource Distribution:**
Map 6: Accredited Diabetes Nurse Specialists per DHB

Interpretation: DNS are predominantly found in Nth Island’s main urban centres, though there are marked differences between these DHB’s also, warranting further investigation. There is evident disparity between % DM population need and accredited diabetes nurse resource.
Map 7: Diabetes Nurse & NP Prescribers per DHB over %Pop with DM

There is disparity between high-need DM populations and Diabetes Nurse / NP Prescribers also.
Analysis of the ACDN membership by Maori ethnicity was conducted to meet MOH commitments to tangata whenua / Maori under the Treaty of Waitangi and the cultural needs of PWD, of whom a high percentage are Maori.

Map 5: ACDN Maori members-distribution per DHB

Interpretation: There is a conspicuous disparity between numbers of Maori PWD and proportional Maori nurse membership? (Further analysis by PI and Indian ethnicity is planned for 2015/2016)
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Workforce Development Summary and Conclusions:

• There are marked disparities between DHB’s in relation to qualified nursing resource. This is evident from both diabetes nurse accreditation and prescribing distribution.

• Notably, the DHBs with the greatest high-need % DM population have the least workforce resource.

• Three main ethnic groups are over-represented in PWD yet are under-represented in ACDN accreditation and prescribing.

• Improved communication and collaboration between ACDN Committees, membership and with our external partners in diabetes healthcare, is needed for an active membership and effective workforce development.

Recommendations:

• ACDN Committees need to work collaboratively to determine what barriers or support processes are in operation in each region that may limit or promote DN professional development. Strategies for support of members can then be developed.

• Priority / high-need regions require urgent needs assessment of their members by ACDN to enable support strategies to be developed or sought from relevant partners in diabetes healthcare provision.

• It is suggested that a key contact person / diabetes nurse from each DHB (one from each of primary & secondary services) be sought to act as liaison-support for the staff participation in workforce development surveys and initiatives. This nurse would preferably be an accredited DNS with an interest in education and professional development.

• Support networks for nurses from the three main ethnic groups: Maori, Pacific, and Indian, need to be initiated by ACDN to encourage recruitment, development and retention of these nurses. (Initial discussions with interested Maori nurses were initiated by ACDN Workforce Development in response to interest expressed by members at the AGM). ACDN committees will need to discuss /develop communication and support strategies with these networks towards enhancing professional development for these target groups.

• The need for seeking membership support in updating their details on the ACDN membership database was identified early in this WD review process and is now underway. This request of members was made at the AGM, on the ACDN website, and in the latest Target newsletter.
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- ACDN Members were given the resource handout (attached separately) at the AGM and asked to reflect on their DHB’s DNS and Prescribers in relation to high-risk ethnic group representation? Then, to consider why the outcome is as it is (? barriers or support?) and how this could be improved. Secondly, they were asked to reflect on their DHB’s workforce profile according to ACDN membership /DNS / DN Prescriber profile in relation to primary and secondary services, etc.

- Ongoing discussion, planning, collaboration and support for diabetes nurse workforce development between the ACDN Executive and Accreditation Committees is critical to maximise resources available and to target nurses from priority groups. This may involve liaison with nursing leadership, NZNO and other related partners in diabetes care (Diabetes NZ, NZSSD, MOH) at times

References:

polemic.nz/2014/11/28/nz-deprivation-index

Diabetes NZ (2013)


NZ Stats

Waitemata District Health Board 2013-2014 Plan
http://www.waitematadhb.govt.nz/LinkClick.aspx?fileticket=rcrre_H_9z0%3D&tabid=81

**Special thanks to Chris Wild of ‘Wild North Ltd’ for Maps created for ACDN data**

Hi Michele

In 2005, 125,000 people were diagnosed with diabetes (inquiry into Obesity and Type 2 Diabetes in NZ, 2007, MOH), an estimated 90% being type two.

The 2013 Virtual Diabetes Register (Ministry of Health 2013, VDR) estimates 243,125 people with diabetes in NZ as at 31/12/13 or 5% of the population. This shows an average compound annual increase of diabetes in NZ of 7.0% from 2005 to 2013. The highest rates of
diabetes in NZ were in Indian ethnic groups (11%) followed by Pacific Islanders (9.6%). 68% were Pakeha or non-Maori/ Pacific Island /Indian.

**The 2014 Virtual Diabetes Register** (Ministry of Health 2014, VDR) shows an average compound annual increase of diabetes in NZ of 7.2% from 2005 to 2014. This means that those estimated to have diabetes form about 5.8% of the total population, increasing about 0.3% per annum. **The 2014 VDR** indicates that 14.4% of Maori have diabetes, slightly higher than the 2013 population census of the whole population which stated Maori only made up 14.1% of the total population. Pacific Islanders make up 11.8% (7% of the 2013 population) and Indian people, who form 3.5% of the 2013 NZ population make up about 6%.

**The 2014 VDR** indicates there are total of 257,770 with diabetes. 10-15% of this is thought to be type one diabetes, the remainder is type two, with an astonishing 25% of the total population potentially having pre-diabetes and at high risk of developing type two at some point in the future. The increase in rates of diabetes is also consistent with the trends in obesity and research indicates that up to 70% of type two diabetes could be prevented if healthier lifestyles were considered.

**In the BOP**, there are 12,151 diagnosed with diabetes (85-90% being type two). 2998 Maori, 241 PI, 405 Indian, 8,507 pakeha/other. If my figures are correct this indicates that in the BOP we **have approx 24% Maori with diabetes, higher than the average of 14.4%**. PI 4%, Indian 3.4%, with Pakeha making up approx 70% of the total. It is well known that the first three ethnic groups are not only predisposed to developing type 2 diabetes, but also have more adverse health outcomes and live in lower socio-economic areas, with Maori three times more likely to develop diabetes than non-Maori. 1:3 PI over the age of 45 have type two, experiencing earlier onset and more complications than NZ Europeans living with diabetes.

These figures suggest the number of people with diagnosed diabetes has more than doubled in nine years and age specific data for 2013/14 shows that type two diabetes is increasingly occurring in Maori and PI children under the age of 15 (Jefferies et al 2012). According to the 'Living Well with Diabetes - A plan for people with Diabetes 2015-2020' (MOH 2015) Addressing these poorer health outcomes requires not just a reduction in diabetes and its complications for these population groups, but a faster rate of reduction than the overall population…. requiring collaboration across health strategies.

Early identification of long term conditions such as diabetes allows people the opportunity to manage their diabetes before it becomes out of control. This management also includes the early identification of complications such as foot ulceration, kidney damage and eye disease. By detecting the early signs of damage to feet, eyes, kidneys active treatment can be undertaken to reduce the risk of amputation, renal failure, blindness, heart attack and stroke. There are encouraging signs that the rates of these complications in people with diabetes has been falling over recent years.

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Early identification of diabetes allows those living with diabetes the opportunity to manage their diabetes before it becomes out of control. This management also includes the early identification of complications such as foot ulceration, kidney damage and eye disease. By detecting the early signs of damage to feet, eyes, kidneys active treatment can be undertaken to reduce the risk of amputation, renal failure, blindness, heart attack and stroke. There are encouraging signs that the rates of these complications in people with diabetes has been falling over recent years. Projects such as the WBOP PHO Wellness Diabetes Course, available free of charge to those newly diagnosed or on insulin, are making a difference, as is the care that many GP’s and Practice Nurses are able to offer to those with blood glucose levels outside expected ranges.

Effective management of diabetes and its complications gives people with diabetes the opportunity to live normal lives. Management of diabetes includes prevention and early identification of diabetes related complications

(2) What can do to avoid diabetes -
Diabetes and pre-diabetes are serious diseases with few symptoms unless blood glucose (sugar) is very high. The stats above show who is at risk, and indicate that there are some things about our lives that put us at risk of diabetes that we cannot change such as age, ethnicity, family history. There are however some things we can change that would not only reduce our overall risk of diabetes but improve our overall health such as weight, the amount of physical activity we do each week, what we eat, and stopping smoking; these are all small steps to BIG changes. Diabetes Help Tauranga challenges everyone who is at risk of diabetes or pre-diabetes to ACT TODAY TO CHANGE TOMORROW.

The main keys to reducing risk of type two diabetes is therefore to reduce your weight to a healthy realistic target, be active for at least 30 minutes most days of the week, eat 'real' healthy food, to include healthy fats and proteins, reducing overall intake of carbohydrate and avoiding where possible foods like lollies, biscuits and fizzy drinks, achieving and maintaining good control of blood pressure and blood cholesterol and getting an annual heart and diabetes check from a health professional

(3) Hayley Bilton I will email her and ask her to contact you
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(5) Diabetes is New Zealand's fastest growing health issue. Diabetes Help Tauranga is a local registered charity that supports people with diabetes so they can 'live life to the full.' Support: We offer support to help people take charge of their health and live well with diabetes. Information: We provide a wide range of information to help people with diabetes manage their diabetes, and to help those with pre-diabetes avoid or delay developing
Hi Michele

World Diabetes Day brings together millions of people in over 170 countries to raise awareness of diabetes. Diabetes Help Tauranga marks November 14 each year to show support for the almost 400 million people currently living with diabetes and the many more at risk.

Diabetes is a huge and growing burden: whilst there are worldwide 382 million people living with diabetes in 2013, that number is expected to balloon to almost 600 million people by 2035. Diabetes results in over 5 million deaths worldwide annually with the greatest number of people with diabetes aged between 40 and 59 years.

In 2005, two years after I arrived in NZ from the UK, there were 125,000 people diagnosed with diabetes (Inquiry into Obesity and Type 2 Diabetes in NZ, 2007, MOH), an estimated 90% being type two. Fast forward 13 years and we have 257,770 people diagnosed in NZ, with potentially up to the same number living with either diabetes or pre-diabetes but unaware of the damage that raised blood glucose levels are having on the cells in their bodies.

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Thirteen years on after I arrived in NZ the 2014 VDR indicates there are total of 257,770 with diabetes, only 10-15% of this is thought to be type one diabetes, the remainder is type two, with an astonishing 25% of the total population potentially having pre-diabetes and at high risk of developing type two at some point in the future. The increase in rates of diabetes is also consistent with the trends in obesity and research indicates that up to 70% of type two diabetes could be prevented if healthier lifestyles were considered.
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Early identification of diabetes allows those living with diabetes the opportunity to manage their diabetes before it becomes out of control. This management also includes the early identification of complications such as foot ulceration, kidney damage and eye disease. By detecting the early signs of damage to feet, eyes, kidneys active treatment can be undertaken to reduce the risk of amputation, renal failure, blindness, heart attack and stroke. There are encouraging signs that the rates of these complications in people with diabetes has been falling over recent years. Projects such as the WBOP PHO Wellness Diabetes Course, available free of charge to those newly diagnosed or on insulin, are making a difference, as is the care that many GP’s and Practice Nurses are able to offer to those with blood glucose levels outside expected ranges.


(2) What can do to avoid diabetes -
Over 70% of type 2 diabetes cases can be prevented or delayed by adopting healthier lifestyle choices.
Diabetes and pre-diabetes are serious diseases with few symptoms unless blood glucose (sugar) is very high. The stats above show who is at risk, and indicate that there are some conditions that may predispose someone to diabetes, such as obesity, high blood pressure, and family history. If you or someone you know is at risk, it is important to take steps to reduce your risk of developing diabetes. This may include making lifestyle changes such as eating a healthy diet, getting regular exercise, and maintaining a healthy weight. By taking these steps, you can lower your risk of developing diabetes and enjoy a healthier life.
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The main keys to reducing risk of type two diabetes is therefore:
* reduce your weight to a healthy realistic target
* stop smoking
* be active for at least 30 minutes most days of the week
* Maintain good blood pressure and cholesterol control and have a yearly heart and diabetes check from your GP or Practice Nurse if at risk, if over the age of 35 (male) 45 (female) or if had gestational diabetes (diabetes in pregnancy).
* eat 'real' food to prevent developing or reduce risk in established diabetes

- Choosing water or unsweetened coffee or tea instead of fruit juice, soda, & other sugar sweetened beverages
- Eating at least three servings of vegetables every day, including green leafy vegetables such as spinach, lettuce or kale
- Eating up two/ three servings of fresh fruit daily
- Choosing nuts, a piece of fresh fruit or sugar-free yoghurt for a snack
- Limiting alcohol intake to a maximum of two standard drinks per day with more alcohol free days
- Choosing lean cuts of white meat, poultry & seafood instead of processed meat or red meat
- Choosing peanut butter instead of chocolate spread or jam to spread on wholegrain bread
- Choosing whole-grain bread instead of white bread, brown rice instead of white rice, whole grain pasta instead of refined pasta
- Choosing unsaturated fats (olive oil, canola oil, corn oil, or sunflower oil) instead of saturated fats (butter, ghee, animal fat, coconut oil or palm oil)

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diabetes. Advocacy: We represent people with diabetes and drive for stronger awareness and better services.

Kind regards

Debbie Cunliffe  
RN, BA (Hons) Health Studies, PGCert. Nursing  
Field Worker

Diabetes Help Tauranga