Neonatal Transitional Care & Outreach Service supports Reduced Length of Stay for preterm babies

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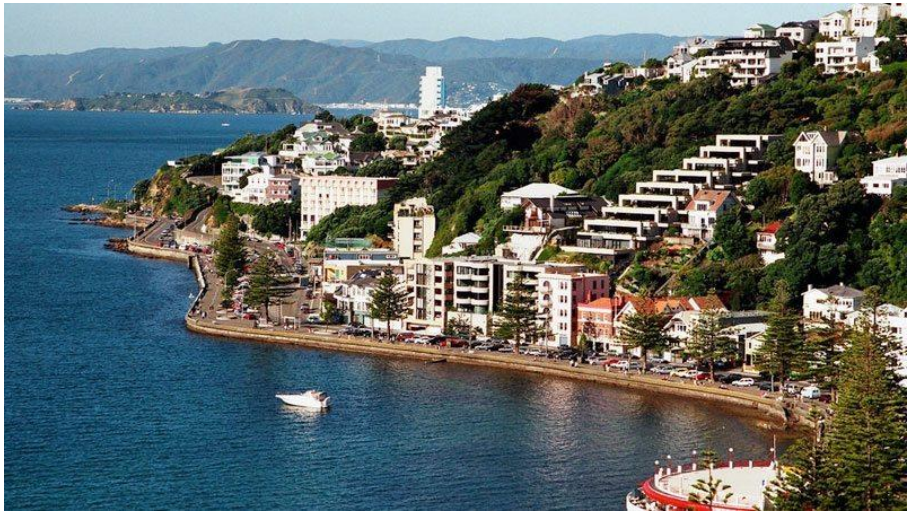

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- **Acknowledgements**
  - **South West Neonatal ODN**
  - **Sr Jo Kirby – Neonatal Outreach Service PHNT**
  - **Dr N Maxwell – data lead NICU PHNT**

- **THANK YOU**

Ngā Tapuhi Whare Kohanga o Aotearoa
Neonatal Nurses College Aotearoa
New Zealand Nurses Organisation

Neonatal Transitional Care & Outreach Service supports Reduced Length of Stay

- In this presentation I will
  - Define NTC & history in my unit
  - Discuss
    - Criteria for admission to NTC
    - Co-dependent services
    - Evidence that NTC prevents separation of LPI (late preterm infant) from mother
  - Outline PHNT Neonatal Outreach programme
  - Demonstrate that NTC PLUS neonatal outreach supports reduction of LOS for preterm babies
  - Discuss NTC staffing structure













Neonatal Transitional Care

CONCEPT NOT A PLACE!

#RightBabyRightCotRightTime

Aim to keep

Mum & Dad & Family

& BABY (s) together (FICare)

***SUPPORTED* by health care professionals**

Definition of NTC

- Neonatal Transitional Care (NTC) supports a resident mother to be or to become the *primary care provider* for a baby with care requirements in excess of normal newborn care, but which are not sufficient to require admission to a NNU

A Framework for Neonatal Transitional Care
British Association of Perinatal Medicine
(to be published November 2017)

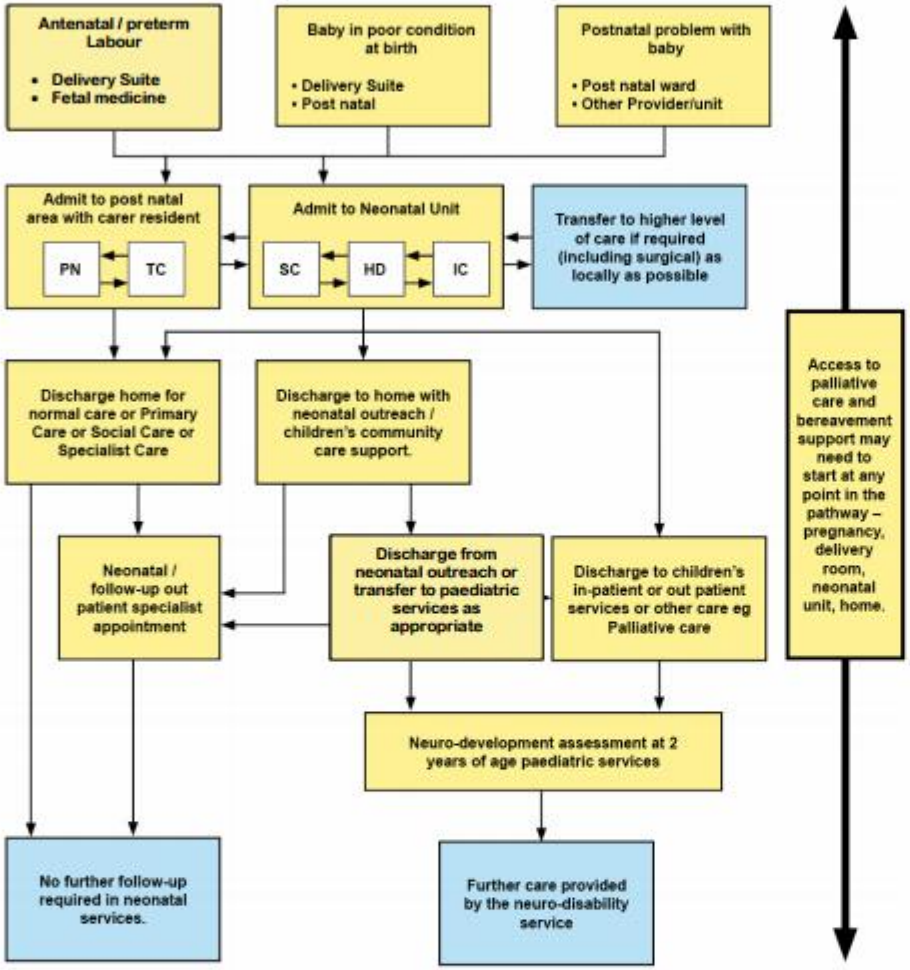
History of NTC in Plymouth

- Established in late 1980s and staffed by midwives
- 1994 NICU & TCW relocated to DGH within a new maternity block
  - TC located adjacent to NICU – 18 bed post natal ward incl NTC (forward thinking NICU sister)
  - Staffed by midwives (expensive!)
  - 12 available cots for NTC ≈ 50% occupied at that time – 6 babies at most
  - 4 antenatal post natal wards at that time ≈ 90 beds
- NICU & TC managed separately – 'silo working' – no focus on baby/family…..
- 2008/09 reduction in available maternity beds ≈ 38
  - Maternity matters DoH 2007 – 'choice of place of post natal care' = HOME….
- 2010 ANNP/Clinical Leads to support managers on NICU & NTC
  - Uplifted NTC cots to 18 & developed 'criteria for admission' & Changed staffing structure
- 2014 NICU & TC budgets amalgamated –
  - L3 NICU & NTC seen as one large 40 cot unit – 14 IC/HD cots, 8 SC cots & 18 NTC supported by NOS

Neonatal Transitional Care

- Evidence?
- What guidance from NHSE/CCG/Department of Health? Who pays?
- What ***are*** the problems in neonatal units?
  - **<u>Operational</u>**
    - Bed-blocking in Level 3 & 2 & 1 units
  - **<u>Governance</u>**
    - Parental anxiety / attachment / maternal mental health / patient safety
  - **<u>Clinical / Financial</u>**
    - QIPPs – ATAIN / Reducing term admissions to NNU
    - Breast feeding rates in prems
    - Discharge <36/40 – early / late prems

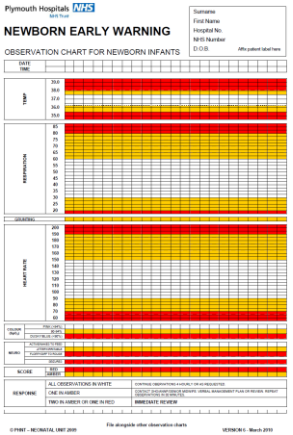
• Neonatal Care Pathway:



Service Specification for Neonatal Care 2014

PHNT Neonatal Transitional Care

18 post-natal beds/cots allocated but flex up with multiples etc


Plymouth Hospitals NHS

NEWBORN EARLY WARNING

OBSERVATION CHART FOR NEWBORN INFANTS

- Criteria for admission
  - Identification of ‘at risk’ baby
- Staffing
  - midwives / nursery nurses / medical
- Co-dependent services
  - Neonatal outreach, safeguarding, paediatrics, AHP
- Benefit to parent / baby & organisation
  - Minimise Length of Stay (LOS) for NTC babies
  - Identify Date of Discharge (DoD) on admission
  - Medical Staff, Nursery Nurses & Outreach Service collaborate
  - Discharge planning for complex babies
- Governance
- Finance / Business

NTC co-dependent services

- Network – need available cots in appropriate unit
  'RIGHT BABY, RIGHT COT, RIGHT TIME'
- Maternity / midwifery (HoM *must* be engaged)
- Level 3 & 2 & 1 units (consultants *must* be engaged)
- Neonatal Outreach Service
- AHPs
  –Dietician/Physiotherapist/Clinical pharmacist/Clinical Psychologist/SALT/Labs
- FAB (Family & Baby)
- Peer Support Workers (Breastfeeding)

Sources of Admission to NTC

- Central Delivery Suite
- Post-Natal ward
- NICU
- Community / Home / ED
- Other Hospitals

PHNT - Criteria NTC from birth

- **Prematurity: 34 – 36^{+6} weeks gestation (LPI)**
- **Low birth weight:** 1500 - 2500 grams
  - (infants that are <2^{nd} centile for weight and / or have abnormal antenatal Doppler studies should be admitted to the Neonatal Unit for initial assessment)
- **Respiratory problems:** Infants with mild respiratory distress
  - (respiratory rate <80/minute, mild recession and grunting) and with normal oxygen saturations in air may be observed initially. *Admit to NICU if symptoms persist or worsen / require oxygen therapy or IVI.*
- **Infants requiring 4 hourly observations for a prolonged period (> 24 hours)**
- **Infection:** infants requiring iv antibiotics
- **Congenital abnormalities**: Requiring specialist nursing care e.g. trisomies
- **Hypoglycaemic infants**: glucose <2.6 mmol/l despite adequate feeding.
- **Infant of diabetic mother (insulin or diet controlled)**
- **Maternal treatment with beta blockers**
- **Maternal drug and alcohol dependency**
- **Infants at risk of early jaundice** e.g. Maternal haemolytic antibodies
- **Infants requiring phototherapy**
- **Safeguarding concern:** Infants for adoption and those subject to care proceedings

'Baby needs to prove need for 'admission' to NNU instead of Baby needs to prove to be 'discharged' from NNU'

PHNT Criteria for admission to NTC from NICU/community/other hospital

- **NICU**
  - Stable 33/40 self ventilating & feeding 3 hourly
  - Ex extreme prem pre discharge +/- oxygen dependent
- **Community**
  - <10 days old with the following conditions:
    - Jaundice requiring phototherapy treatment
    - Weight loss (> 12.5 %) / Hypernatraemic dehydration – Serum Na 150mmol/l
    - Poor feeding
    - Sepsis
    - Discharged from the neonatal unit / NTC with a known problem / condition and are less than 37 weeks corrected gestation (under care of neonatologists
- **Other hospital**
  - Repatriation following care in other hospital – e.g surgery
  - Ongoing care
- ***NB Some infants under 10 days of age will be unsuitable for admission to NTC in post-natal ward***
  - ***Suspected viral respiratory infections putting other infants at risk***

Financial year 2016/17
Admissions by location

Ward Location	<26	26-30	31-36	>36	Unknown	Total
Neonatal Unit	29	74	115	179	0	397
PostNatal Ward	0	0	0	11	0	11
NTC	0	0	195	680	0	875
Unknown	1	0	0	6	0	7
Total	30	74	310	876	0	1290

Financial year 2015/16
Admissions by location

Ward Location	<26	26-30	31-36	>36	Unknown	Total
Neonatal Unit	12	59	127	205	0	403
Post NatalWard	0	0	2	45	0	47
NTC	0	0	150	747	0	897
Unknown	0	1	0	4	0	5
Total	12	60	279	1001	0	1352

Length of Stay (LOS)
2016/17 financial year

(includes **ALL admissions NNU & NTC** but excludes readmissions and all babies who spent any time in another hospital)

Gestation (weeks)	Number of babies	Average LOS (days)
32	18	22.9
33	21	14.8
34	52	11.3
35	63	8.0
36	92	5.7

Length of Stay
2015/16 financial year

(includes **ALL admissions NNU & NTC** but excludes readmissions and all babies who spent any time in another hospital)

Gestation (weeks)	Number of babies	Average LOS (days)
32	13	18.2
33	31	14.5
34	46	13.1
35	53	7.3
36	89	5.1

2016/17 financial year

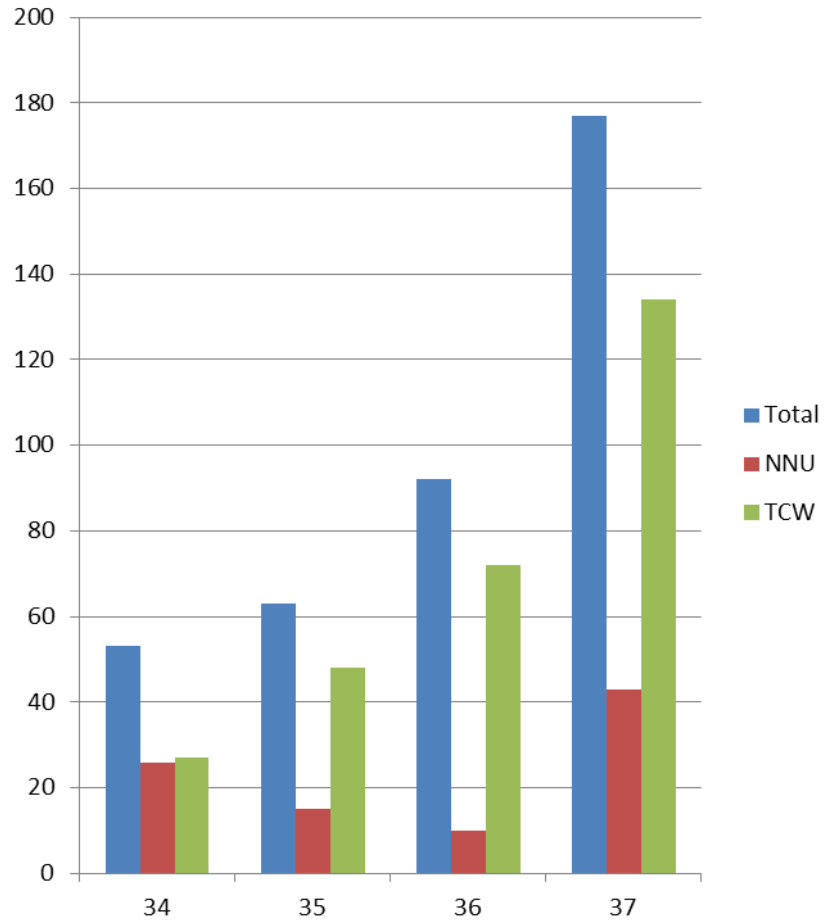
Babies with **zero** NNU days (i.e. total NTC) / total babies admitted in that gestational group

	Total	NNU	NTC	% NTC
34	53	26	27	51%
35	63	15	48	76%
36	92	10	72	78%
37	177	43	134	76%

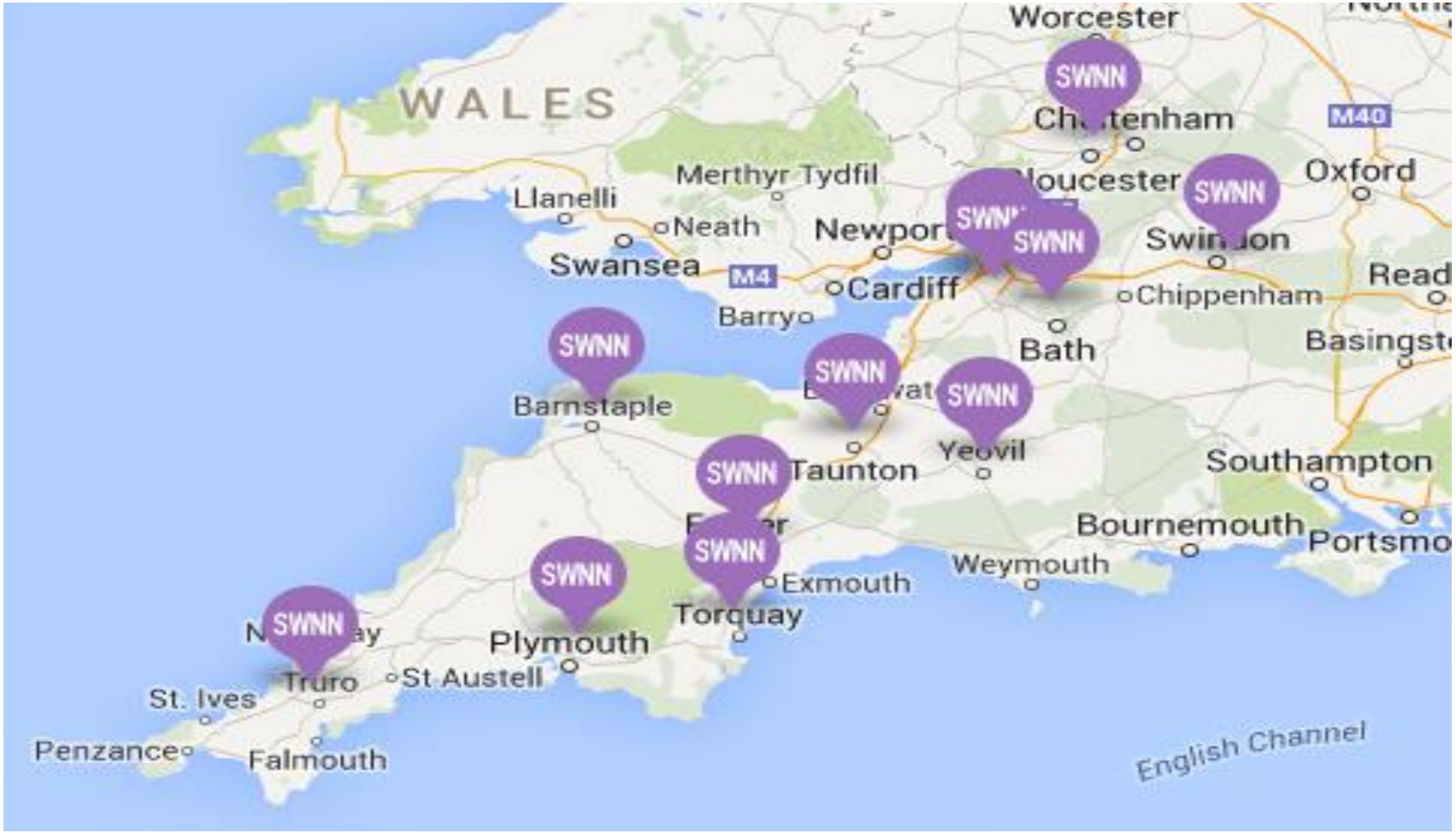
2016/17 financial year

Babies with **zero** NNU days (i.e. total NTC) / total babies admitted in that gestational group

Gestation	LOS avg days
34	9.2
35	7.4
36	4.5
37	4



South West Neonatal Network



Level of unit	Total numbers of LPI 34-37 weeks	NNU LPI	NTC LPI	%NTC LPI	Available NTC beds
3	274	141	133	48.5%	16
3	302	99	203	67%	16
3	225	63	162	72%	18
2	174	174	0	0%	0
2	131	89	42	32%	4
2	143	120	23	16%	2
2	143	118	25	17.5%	2
2	148	147	1	0.7%	0
2	113	98	15	13%	2
1	48	48	0	0%	0
1	83	83	0	0%	0
1	52	52	0	0%	0

Establishing a NTC

- Maternity / midwifery (HoM *must* be engaged)
- NICU, LNU, SCU (consultants & nursing managers *must* be engaged)
- Neonatal Outreach Service – co-located/shared care
- Safeguarding Team – co-located/shared care
- Ancillary nursing workforce
  - Supported by registered midwife/nurse
- AHPs
  - Dietician/Physiotherapist/Clinical pharmacist/Clinical Psychologist/SALT/Labs
- FAB (Family & Baby)
- Peer Support Workers (Breastfeeding) – volunteers☺

PHNT NTC Neonatal Nurse Staffing

No BAPM recommendation (in progress) use 1:6

Registered Midwife / Nurse <u>plus</u>

Nursery nurse team: PINKIES
(non-registered)

- **Specialist – competency based course**
  - **SC & HD babies**
  - **Check oral drugs**
  - **Consultant W/Rs**
  - **Discharge planning**
    - **Parental education**
  - **IBLS**
  - **Safeguarding / chronology etc**

Meerkat Syndrome

Plymouth Hospitals NHS
NHS Trust

Neonatal Outreach Service

Reducing the Length of Stay for the Moderate and Late Preterm Infant.

Jo Kirby, Family Support Sister & Neonatal Outreach Lead Derriford Hospital

Discharge Planning

Role of Neonatal Outreach Service (NOS) is to *'coordinate the discharge planning process and support the transition from hospital to home, providing expert neonatal care in the community'*

Criteria for Outreach Referral

- Infants born below 34 weeks gestation
- All infants born below 1.5kg or weighing below 2.0kg at discharge
- Any infants with additional needs as requested by neonatologist
- Infants part tube feeding, must be otherwise well and at least 50% breast or bottle feeding.
- Infants going home for palliative care.
- Infants going home on oxygen.
- NAS infants going home once reduced to 100mcg 4 hourly if agreed suitable between neonatologist, outreach team and social care.

Specialist services

Health visitor

Community midwife

Extended family

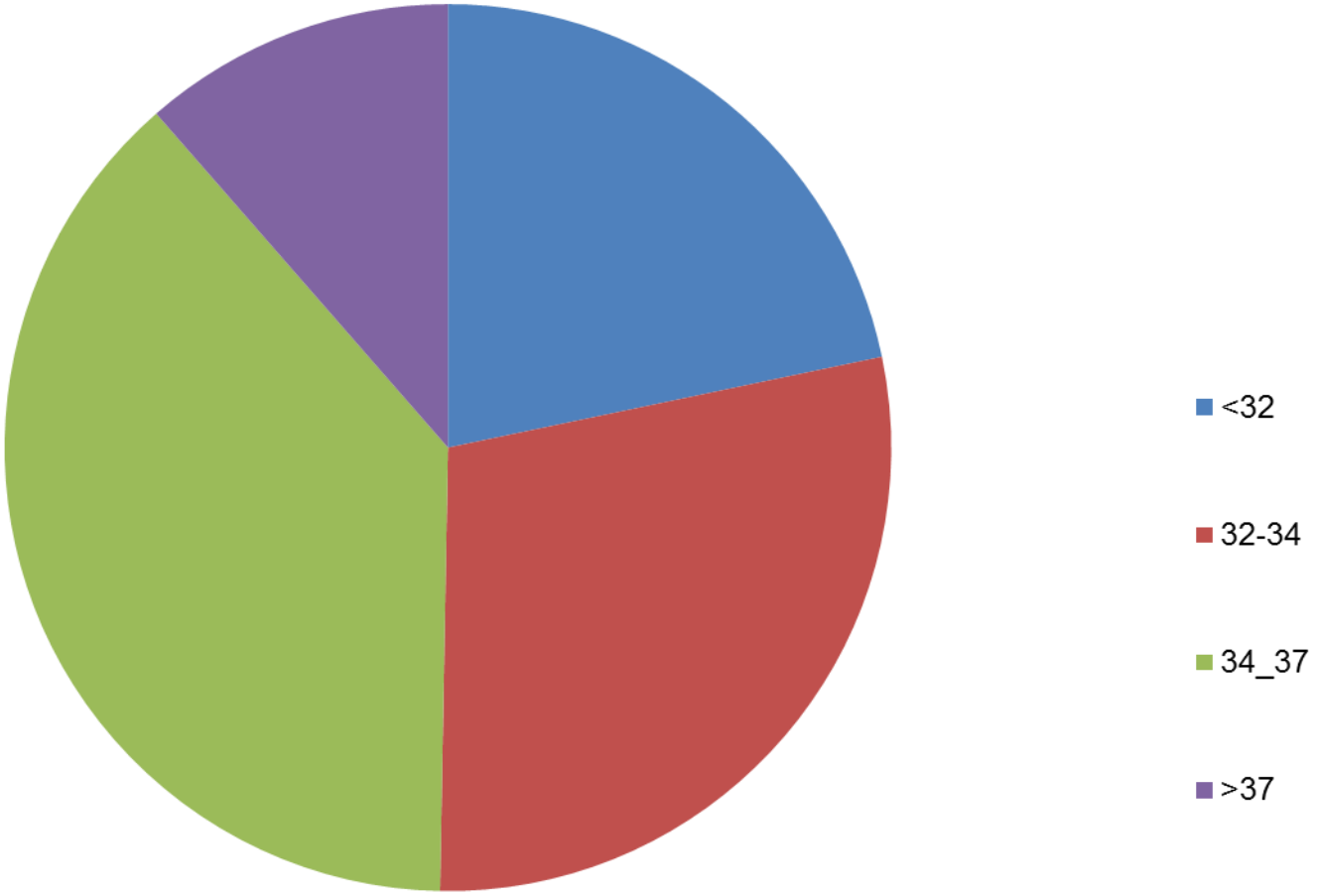
Neonatalogist/
Paediatrician

Social care

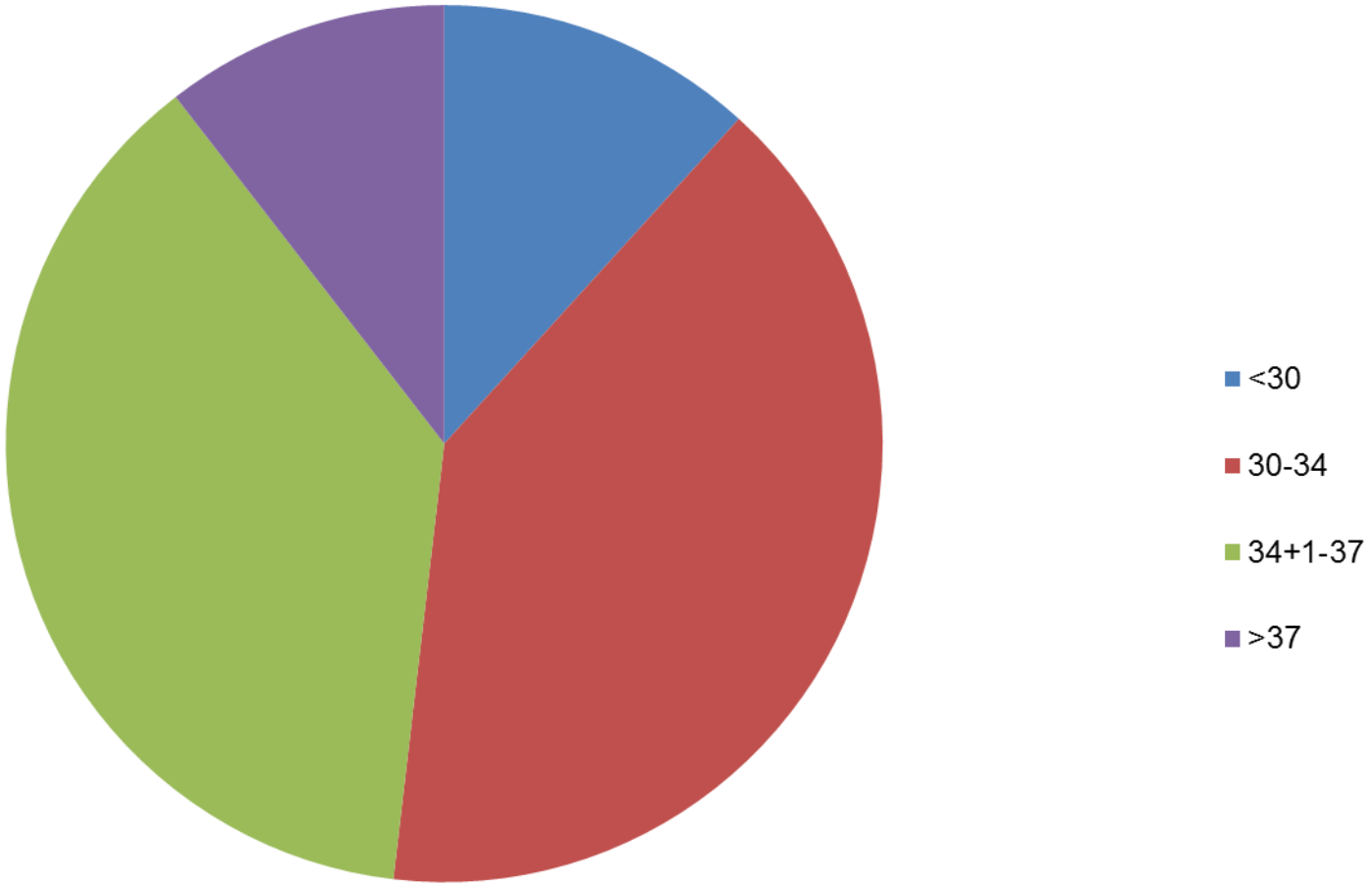
Family support worker

NNU staff

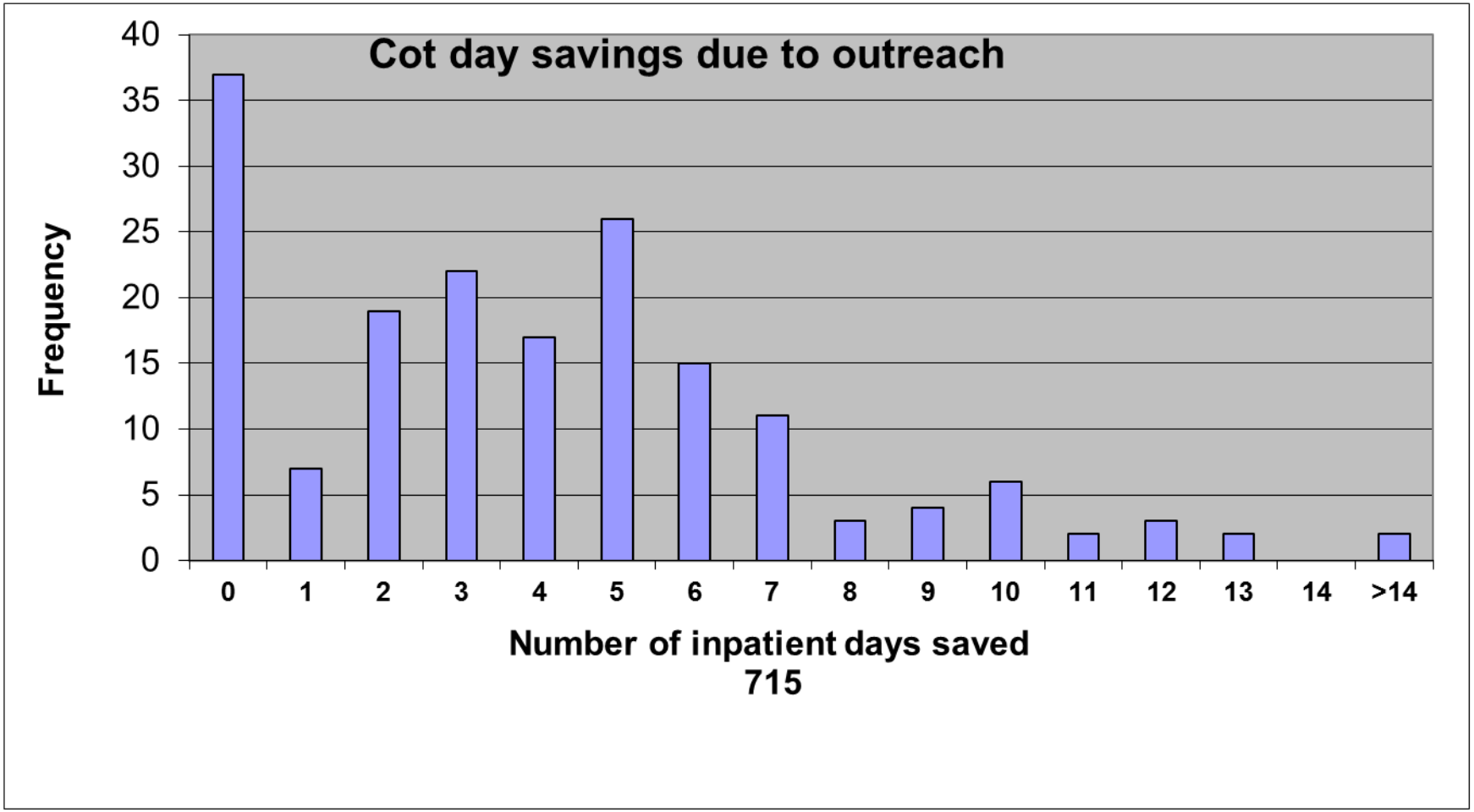
Extreme, Moderate or Late Preterm Infants Discharge Home Under Outreach Care



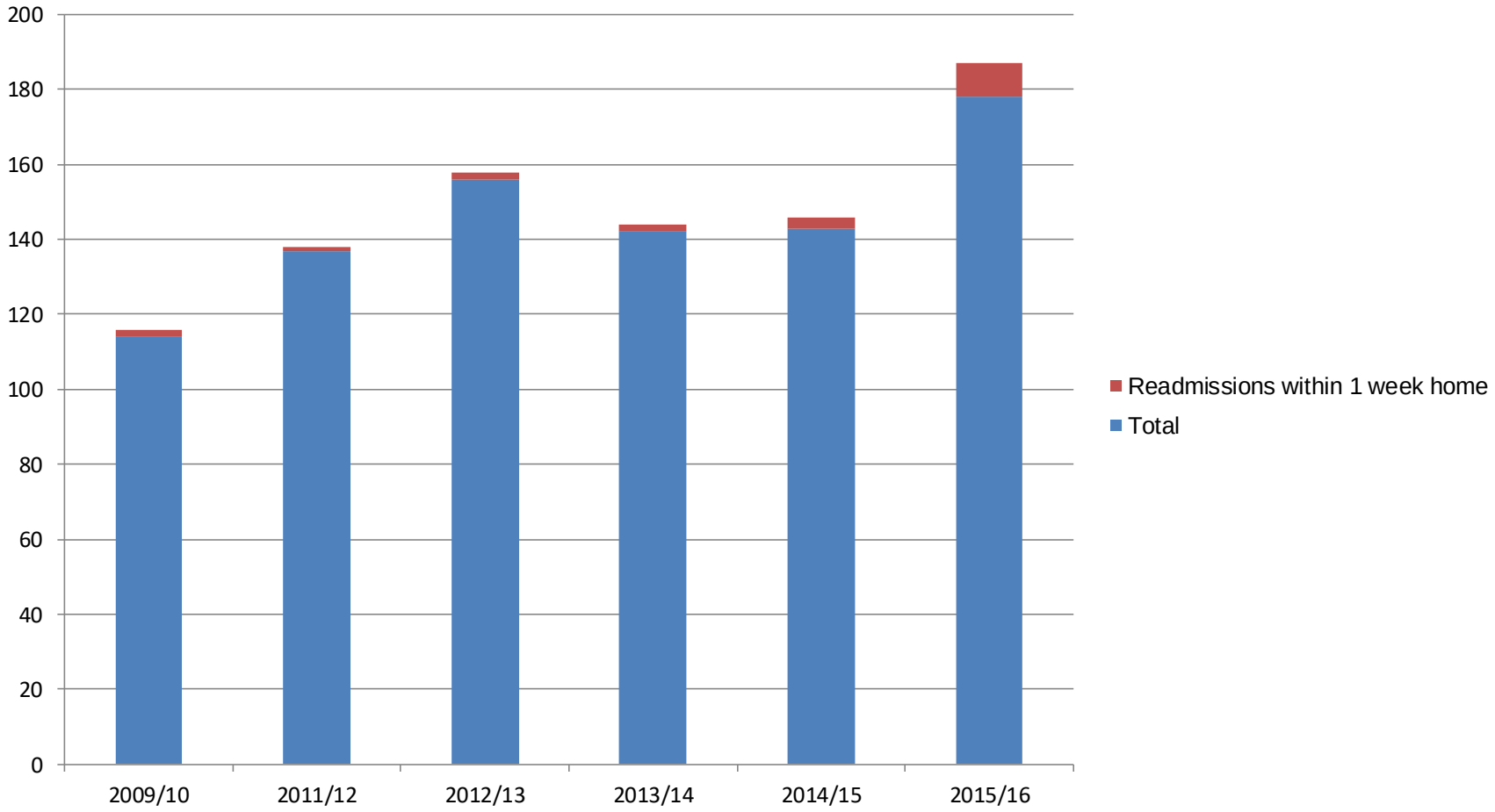
Extreme, Moderate or Late Preterm Infants Discharge Home Under Outreach Care



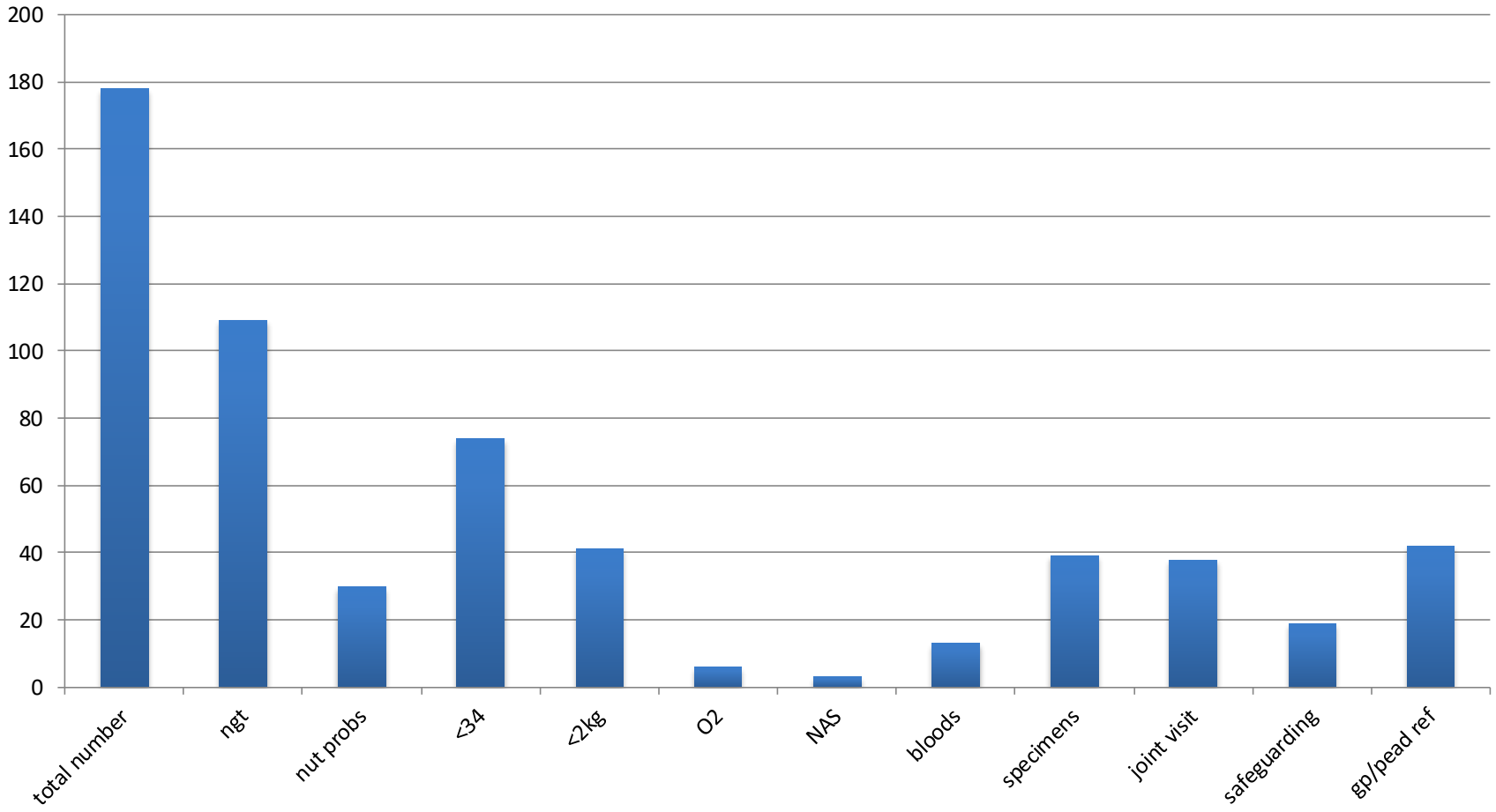
Cot Days Saved



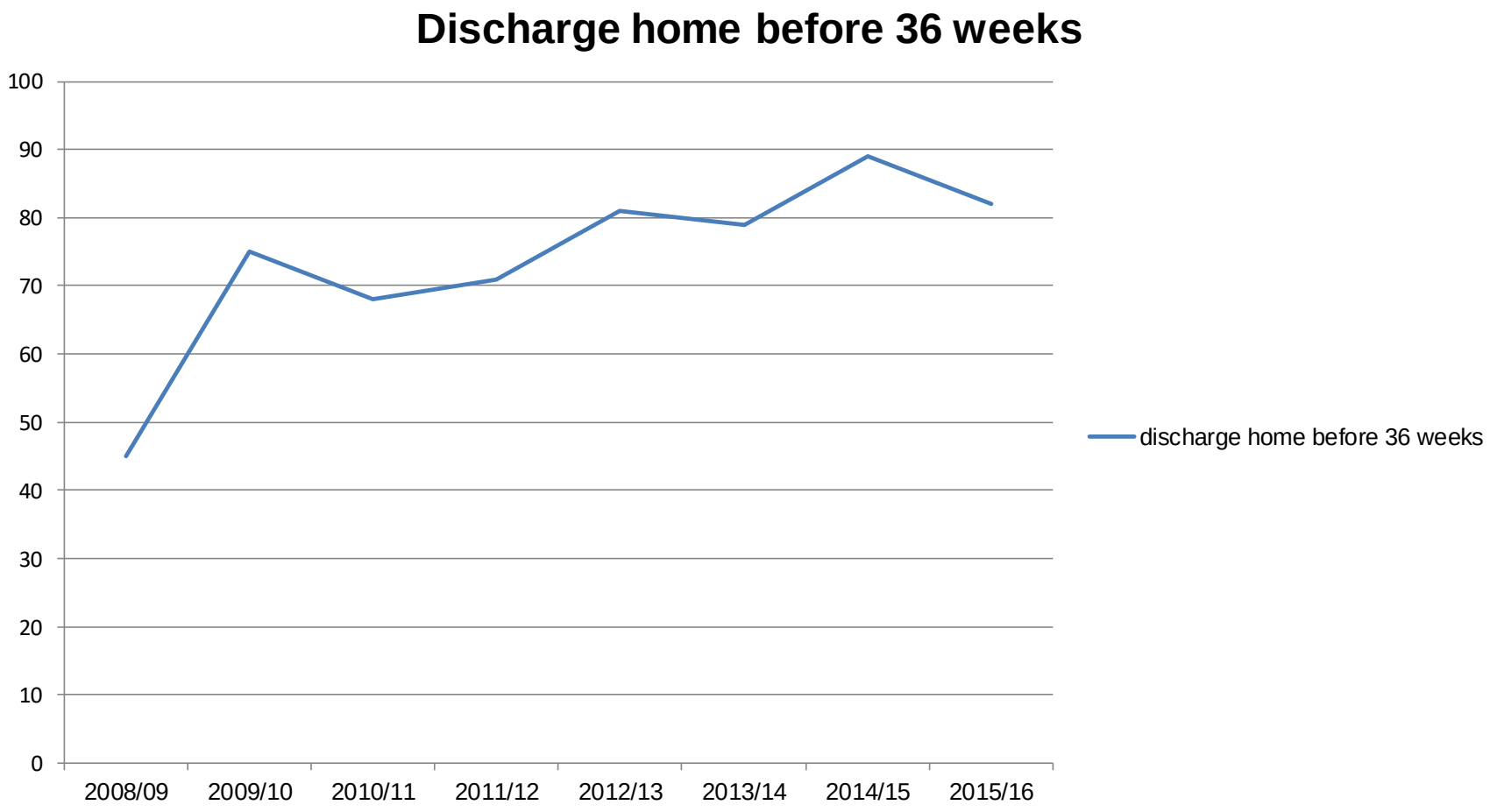
Readmissions



Outreach Activity



Timely Discharge Home for the Moderate and Late Preterm Infant



Discharge to Neonatal Outreach

Discharge planning:

1. Starts at admission
2. Is a coordinated process with the multi-disciplinary team and the family
3. Is individualised plan for every infant
4. Successful discharge planning facilitates family readiness and improved outcomes in the transition from hospital to home

Ready for Home with NOS

Has / is baby

- Maintained a stable temperature in a cot for at least 24 hours prior to planned discharge?
- A stable airway with no desaturation or bradycardia for at least 5 days prior to discharge?
- Medically stable with no acute illness?
- Cearly defined and written plan of care agreed between neonatal care team, parents and outreach team - all necessary paperwork must be completed

Matilda 1.6Kg & ready for home with mum & NOS

Benefits of Outreach

- Promote family bonding / attachment
- Reduce financial costs and time pressures for family
- Relieve cot blocking **#RightBabyRightCotRightTime**
- Reduce risk of hospital acquired infection
- Babies thrive in family environment
- Empowering parents

Further Benefits of Outreach

Facilitation of discharge process

Reduced re-admissions and clinic appts

Terminal and palliative care at home

Link between community and acute services

Maintenance of clinical skills between hospital and community.

Governance / Safety

- Neonatal Safety Huddle
  - Medical & Nursing teams
    - includes NTC activity & staffing incl escalation
    - 3 times / day

Summary

- NTC supported by outreach service
  - Safely supports early discharge from hospital and reduces LOS for preterm babies
  - Prevents readmission to hospital of ex prem babies
  - Supports maternal/baby attachment/bonding
  - Prevents bed blocking in NICU
  - Facilitates ’right baby right cot right time’ ethos
    - **Keep ‘front & back door open’…….**

THANK YOU