PSI Working Group Meeting: Safe and Effective Staffing for Health

Materials provided by the Australian Nursing & Midwifery Federation (SA Branch)

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One country – but….

6 states and 2 Territories

6 Industrial Relations systems/jurisdictions

8 (plus private) health systems

5 major nurse/midwife staffing systems….

(Main) Systems in Australia…

WA Model NHPPD 1 - 7 categories (Duffield/Twigg)

- WA
- Tasmania
- Northern Territory

NSW Hybrid Model NHPPD + Complexity - Calculator

Victoria Ratio Model 5:20 (CalNoc)

South Australia NHPPD Model (ExcelCare Demand Driven – Forecast demand

Queensland NHPPD Budget Base

The South Australian Journey

1991

- Excelcare (clinical nursing system) introduced
- System developed over several years to add timings associated with specific interventions
- This data used to project number of staff required each shift to meet patient care needs

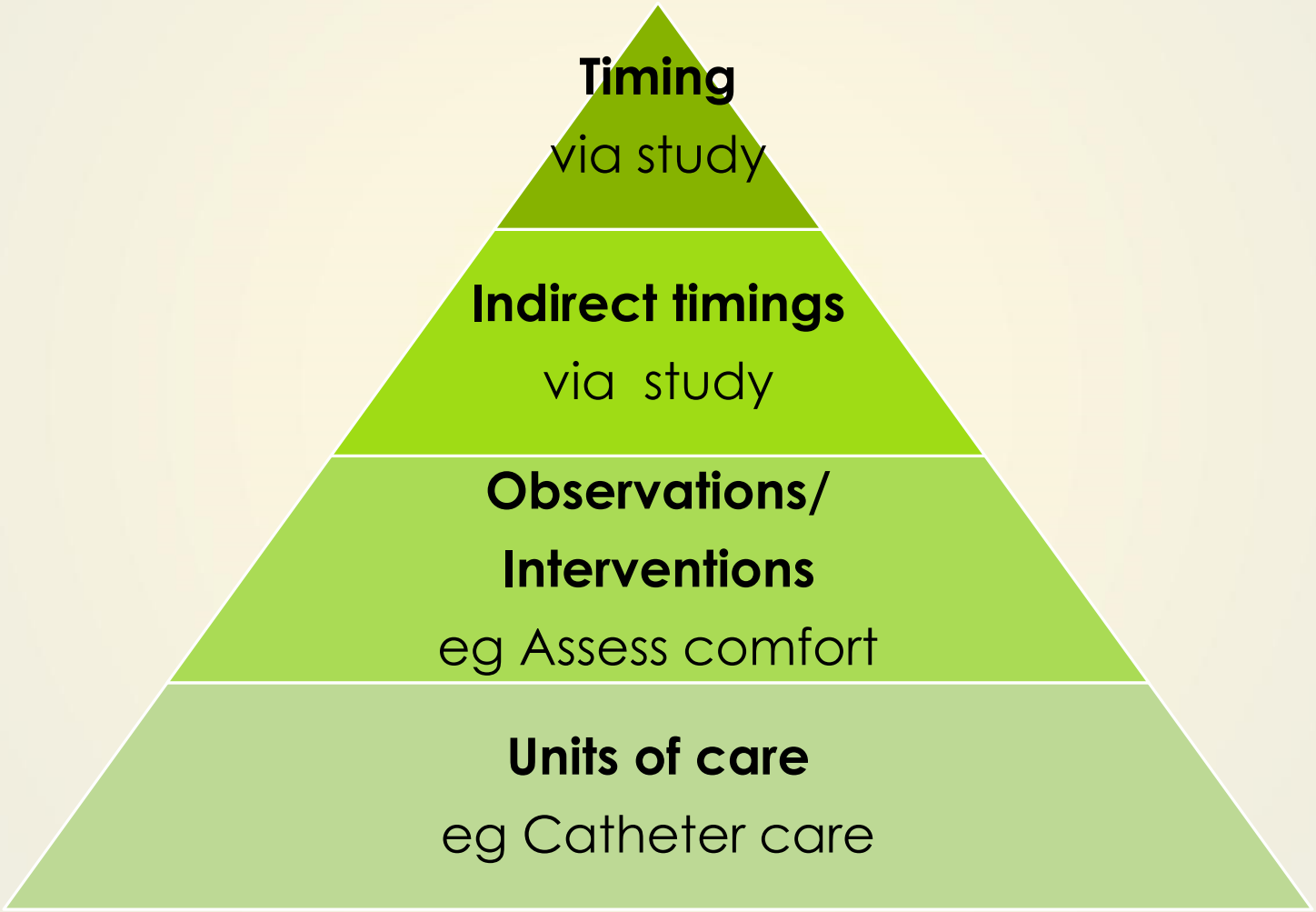
2001

- Concerns that Excelcare staffing demand not met across sites. Major dispute.
- Agreement that Excelcare demand would be met as a minimum staffing outcome in all relevant area
- Agreement that standards based (ratios) would be used in EDs, Critical care, theatres

2014

- Agreed N/MHPPD implemented on the basis of existing staffing levels under Excelcare
- Ratios preserved for EDs, Critical care, Theatre areas and GI procedural areas
- N/MHPPD made mandatory for smaller country hospitals including aged care beds
- Business rules agreed to keep staffing model under review as services evolved

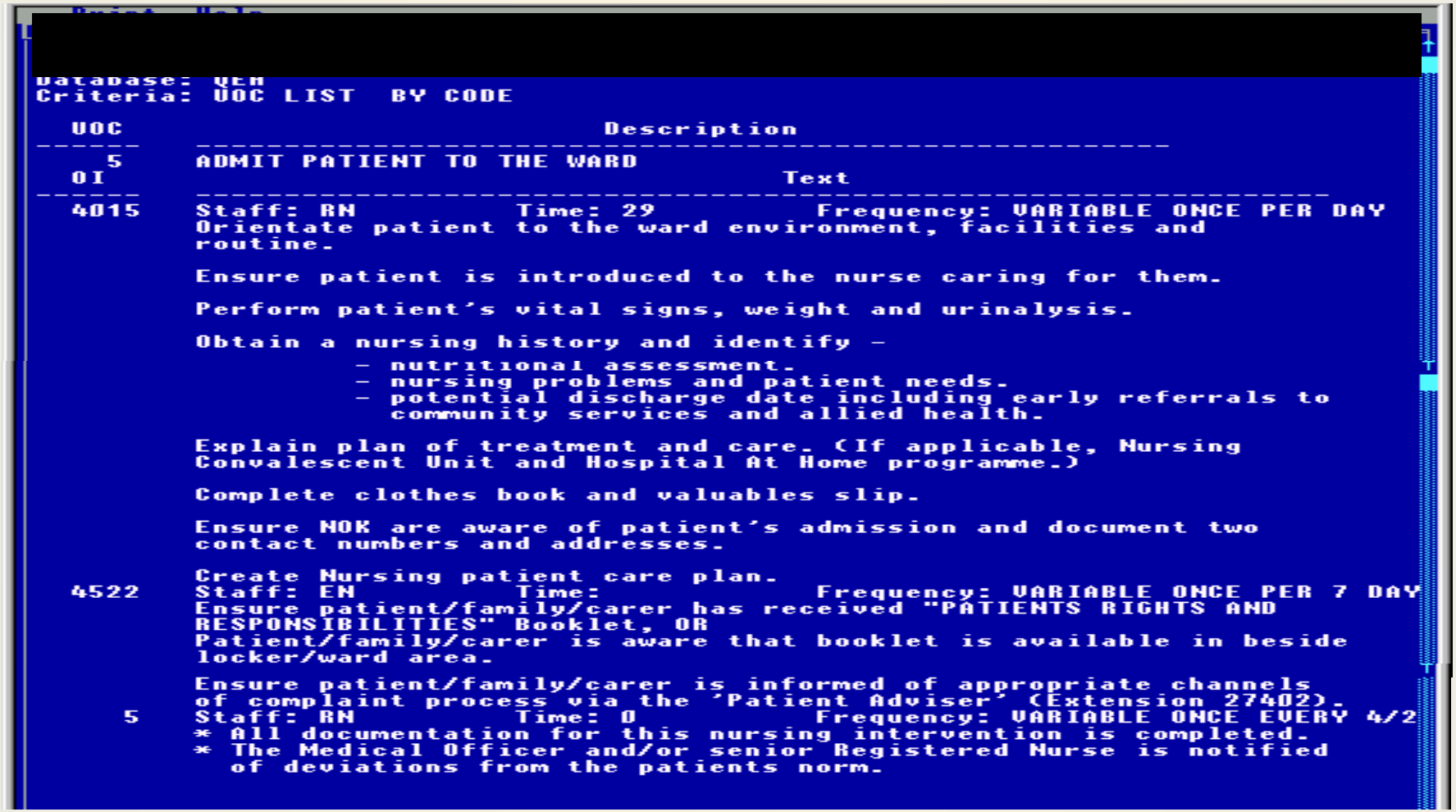
The Excelcare model for staffing:



ExcelCare Timing Sample

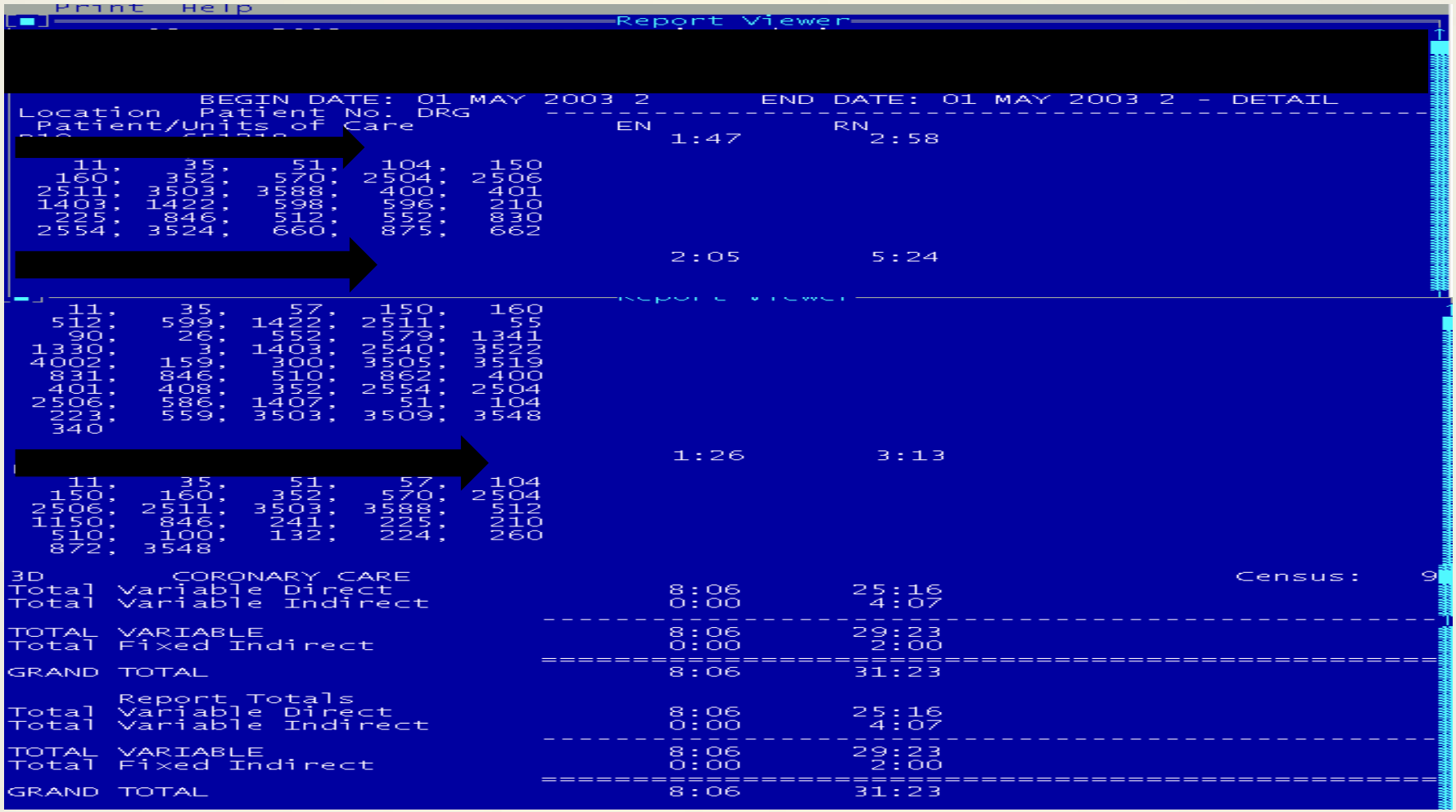
```
Date:  18 DEC 2014      EXCELCARE UOC OI Detail Report              Page:
230
                                XXX Hospital
Database: HC2003
Criteria: WITH CODE >= "9" AND WITH CODE <= "88050"  BY DESCRIPTION

 UOC                            Description
------   ------------------------------------------------------
22602    INDWELLING URETHRAL CATHETER - INSERTION
OI                                      Text
------   ------------------------------------------------------------
 22850   Staff: RN         Time: 0          Frequency: NO TIME/ TIME
ELSEWHERE
         Assess client comfort.
         Administer analgesia as required, document effect.

22852    Staff: RN         Time: 0          Frequency: NO TIME/ TIME
ELSEWHERE
         Explain procedure.

22854    Staff: RN         Time: 29         Frequency: Variable 8 hourly
         Insert catheter as per procedure manual.

22856    Staff: RN         Time: 0          Frequency: NO TIME/ TIME
ELSEWHERE
         Document catheter change.
```

Also had timings for 'indirect' care

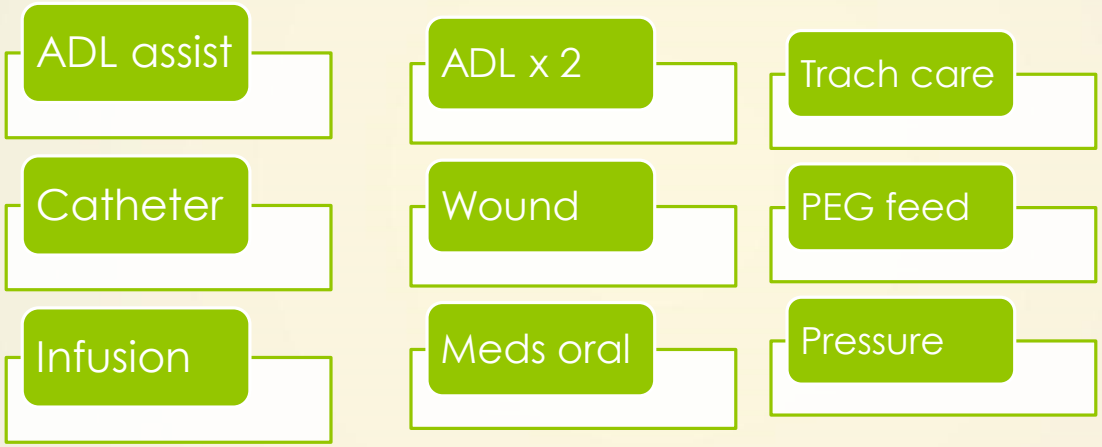


```
Database: QEM
Criteria: UOC LIST  BY CODE

  UOC                              Description
------   ------------------------------------------------------------
    5    ADMIT PATIENT TO THE WARD
  OI                                        Text
------   ------------------------------------------------------------
 4015    Staff: RN          Time: 29          Frequency: VARIABLE ONCE PER DAY
         Orientate patient to the ward environment, facilities and
         routine.

         Ensure patient is introduced to the nurse caring for them.

         Perform patient's vital signs, weight and urinalysis.

         Obtain a nursing history and identify -
                  - nutritional assessment.
                  - nursing problems and patient needs.
                  - potential discharge date including early referrals to
                    community services and allied health.

         Explain plan of treatment and care. (If applicable, Nursing
         Convalescent Unit and Hospital At Home programme.)

         Complete clothes book and valuables slip.

         Ensure NOK are aware of patient's admission and document two
         contact numbers and addresses.

         Create Nursing patient care plan.
 4522    Staff: EN          Time:             Frequency: VARIABLE ONCE PER 7 DAY
         Ensure patient/family/carer has received "PATIENTS RIGHTS AND
         RESPONSIBILITIES" Booklet, OR
         Patient/family/carer is aware that booklet is available in beside
         locker/ward area.

         Ensure patient/family/carer is informed of appropriate channels
         of complaint process via the 'Patient Adviser' (Extension 27402).
    5    Staff: RN          Time: 0           Frequency: VARIABLE ONCE EVERY 4/2
         * All documentation for this nursing intervention is completed.
         * The Medical Officer and/or senior Registered Nurse is notified
           of deviations from the patients norm.
```

Informed decisions about skills mix



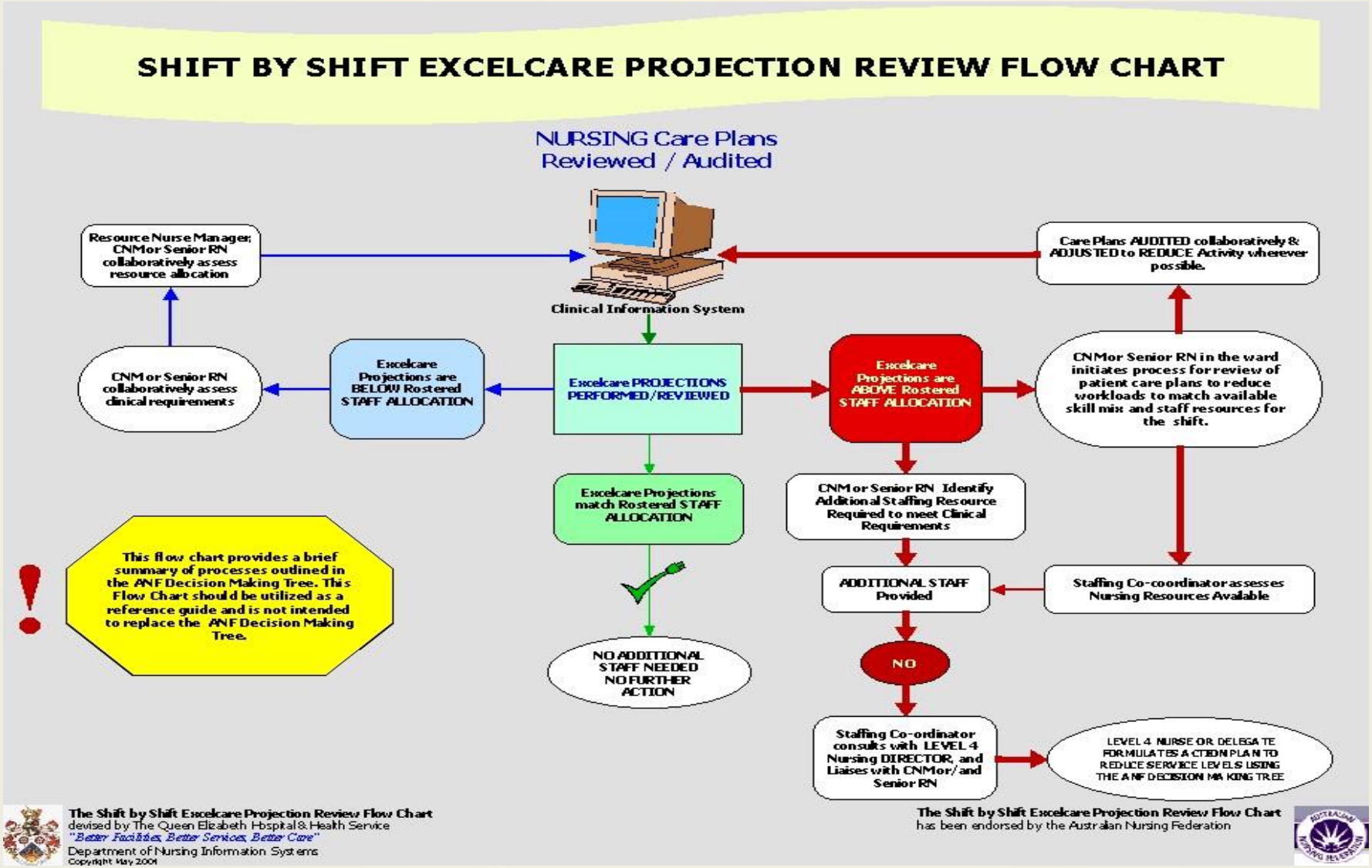
Aggregation of timings…



Total care time for 3 patients on this shift

20 mins + 29 mins + 30 mins + 40 mins + 30 mins + 20 mins + 30 mins + 120 ins + 90 mins = 409 minutes or 6.8 hours

2001 - created some compliance



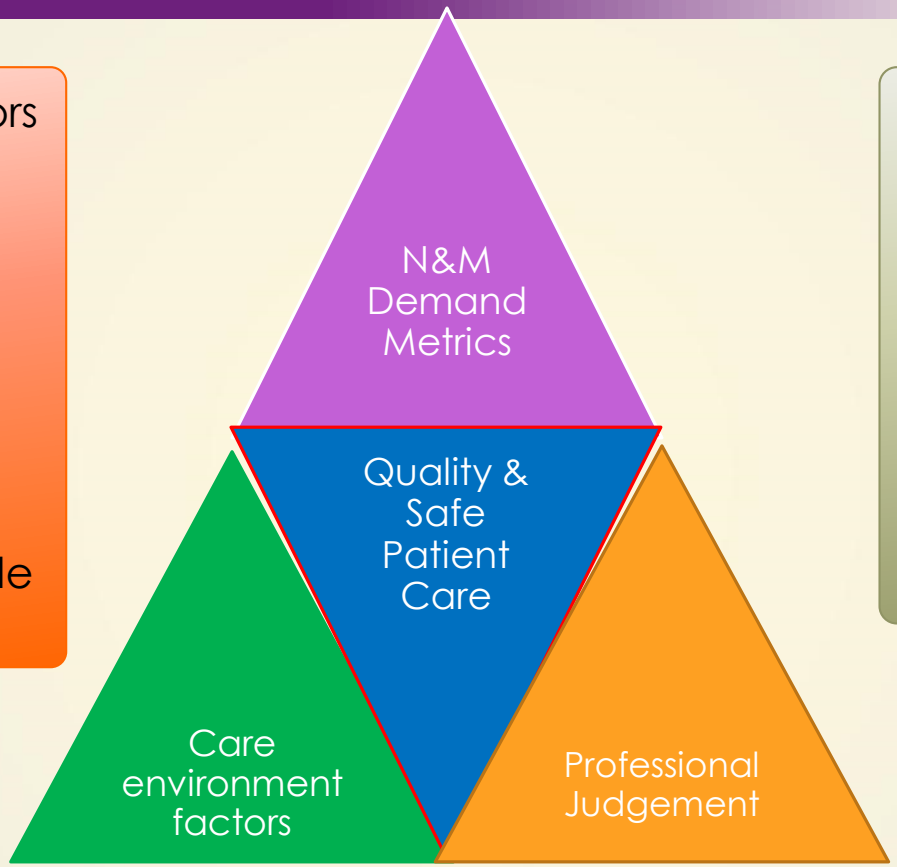
Moving to new model

What are the principles?

- We developed the following list of principles:
  - Transparency
  - Enforceability
  - Evidence-based
  - Empowers teams to make decisions
  - Maintains relevance over time
- Tested what was most important (surveys, meetings)
  - Clear message that the most important thing was not to reduce staffing numbers
- Moving to other existing models (Vic, NSW, WA) would have led to reductions in large numbers of wards so failed to ‘no reduction’ test

The Conceptual Model

Environmental Factors eg:
- "Churn" Patient Turnover
- Technology & Equipment
- Administrative Support
- Clinical support
- Geography eg single rooms



Demand Metrics eg:
- N/MHPPD
- Clinical Specials
- Skill Mix
- Patient Types/ ARDRG Data
- Excelcare/CPS timings **(DATA++)**

Patient Outcomes

Professional Judgment eg:
- Evidence-based Standards, Care Guides
- Shift by shift Staffing Requirements Decision Tree
- Telford framework – collaborative decision making at unit level

Nurse Sensitive Outcomes

Where are now?

Staffing numbers

- Are set for every ward that is not working to an agreed ratio/formula
- Were based on previous Excelcare demand data (was generally higher than actual) rounded to nearest 0.25 of an hour (15 minutes
- Where actual staffing was higher than the demand the staffing level could not be reduced
- No ward could be worse off but some could obtain slight improvements

Transparency

Type of ward/unit	Staffing number
Hospitals > 70 beds	
Medical/Surgical	6.25 (GI and Heptatology) – 7.0 (Onc)
High complexity	7.2 (Vasc, Cardiothor.) – 8.85 (AS Unit)
Obstetrics (ante/post natal)	6.0
Paediatric Med/Surg	7.75
Mental health acute	5.11
Hospitals < 70 beds	
Med/Surg	5.0
Paeds	5.3
Obstetrics	6.0
Aged care	6.0 (GEM), 3.2 aged care

Enforcement

- Monthly average data for each ward provided every 3 months for checking and action eg
- We conduct variance analysis and follow up every area where any significant variance that is maintained over time
- Has led to significant improvement of compliance over last year
- Example of one site which has been poor performer:

LHN report

NMHPPD

Hospital: **Local Health Network - X**

Period		Start Date	End Date	Inpatient Care Area	Avg OBD's	Actual NMHPPD	Agreed NMHPPD	VAR (Actual - Agreed)	Quarter Avearage	
1	Q1	01/07/2014	11/07/2014	Ward A	10.09	7.81	7.25	0.56		
2	Q1	12/07/2014	25/07/2014	Ward A	11.71	7.40	7.25	0.15		
3	Q1	26/07/2014	08/08/2014	Ward A	12.57	6.96	7.25	-0.29		
4	Q1	09/08/2014	22/08/2014	Ward A	12.57	7.29	7.25	0.04		
5	Q1	23/08/2014	05/09/2014	Ward A	13.71	6.24	7.25	-1.01		
6	Q1	06/09/2014	19/09/2014	Ward A	12.64	7.05	7.25	-0.20		
7	Q1	20/09/2014	03/10/2014	Ward A	10.93	7.45	7.25	0.20	-0.08	1ST Q
1	Q2	05/10/2014	18/10/2014	Ward A	11.60	7.69	7.25	0.44		
2	Q2	19/10/2014	01/11/2014	Ward A	11.40	7.00	7.25	-0.25		
3	Q2	02/11/2014	15/11/2014	Ward A	12.10	7.97	7.25	0.72		
4	Q2	16/11/2014	29/11/2014	Ward A	12.00	7.68	7.25	0.43		
5	Q2	30/11/2014	13/12/2014	Ward A	12.20	7.48	7.25	0.23	**0.31**	**2ND Q**
				Ward A Average	**11.96**	**7.34**	**7.25**	**0.09**	**above**	
1	Q1	01/07/2014	11/07/2014	Ward B	18.82	5.36	5.15	0.21		
2	Q1	12/07/2014	25/07/2014	Ward B	19.29	5.09	5.15	-0.06		
3	Q1	26/07/2014	08/08/2014	Ward B	19.29	5.04	5.15	-0.11		
4	Q1	09/08/2014	22/08/2014	Ward B	17.93	5.72	5.15	0.57		
5	Q1	23/08/2014	05/09/2014	Ward B	14.36	5.56	5.15	0.41		
6	Q1	06/09/2014	19/09/2014	Ward B	14.29	5.58	5.15	0.43		
7	Q1	20/09/2014	03/10/2014	Ward B	12.50	5.78	5.15	0.63	0.30	1ST Q
1	Q2	05/10/2014	18/10/2014	Ward B	14.90	5.76	5.15	0.61		
2	Q2	19/10/2014	01/11/2014	Ward B	13.90	5.77	5.15	0.62		
3	Q2	02/11/2014	15/11/2014	Ward B	15.50	5.01	5.15	-0.14		
4	Q2	16/11/2014	29/11/2014	Ward B	15.70	5.19	5.15	0.04		
5	Q2	30/11/2014	13/12/2014	Ward B	13.00	5.95	5.15	0.80	**0.39**	**2ND Q**
				Ward B Average	**15.79**	**5.48**	**5.15**	**0.33**	**above**	

Evidence based

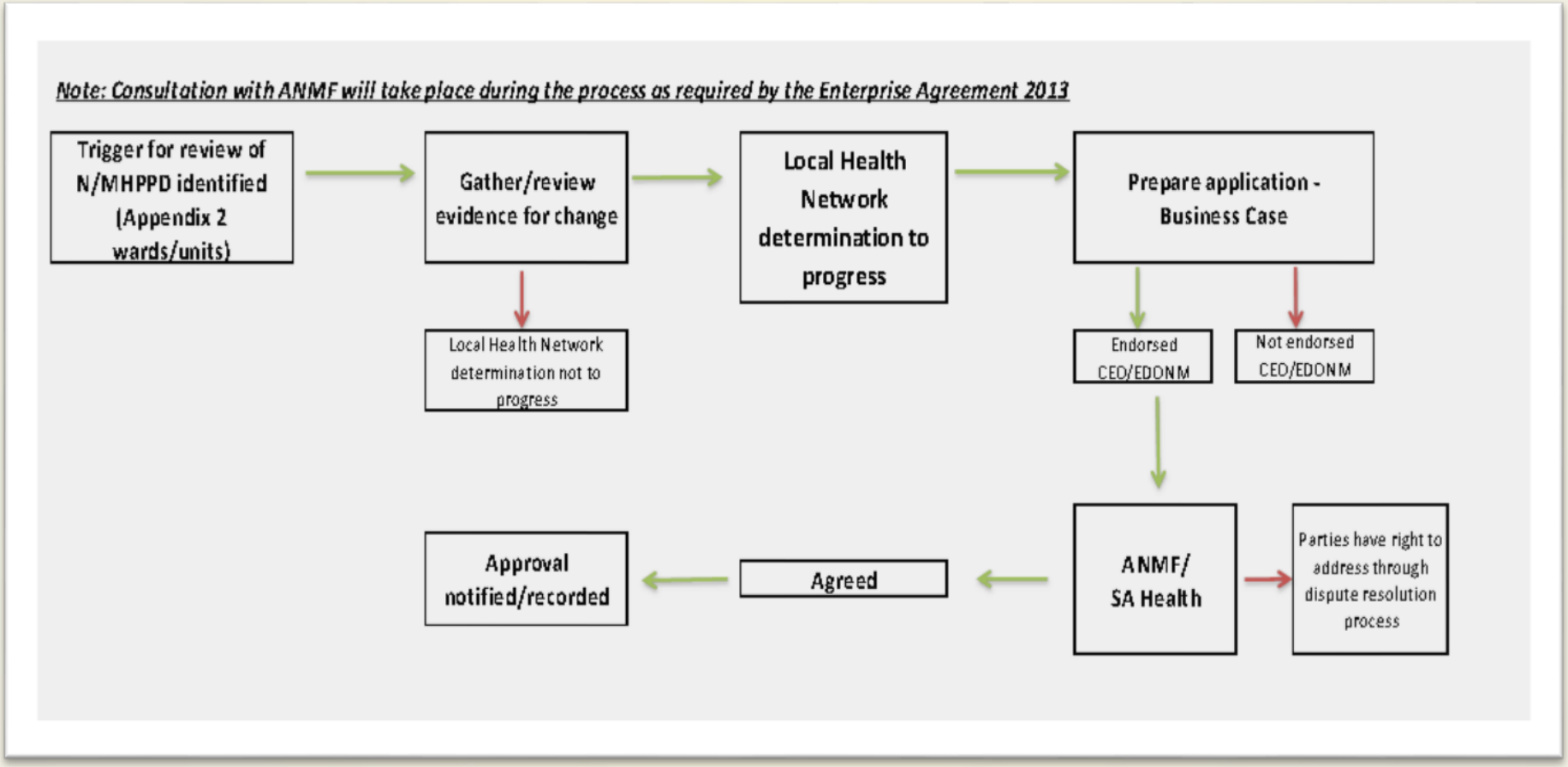
- All staffing outcomes were based on
  - Application of agreed standards data base based on available evidence
  - Agreed definitions for interventions/units of care
  - Timings studies based on agreed methodology
- Any changes to staffing in future have to comply with business rules
  - Evidence of change, impact of that change

Power to make decisions

- Ward can decide how to distribute the hours across day/fortnight to best match workloads
- Must use all of the hours
- Staff and the Managers can decide that change is sufficient to warrant review of numbers and/or mix

Maintain relevance

Business rules critical to underpin reviews



Review outcomes so far…

- In all (but 1) cases to date have led to increases in HPPD
- Highly resource intensive!!

Where are the gaps?

- Private hospitals
- Aged care
- Community/Primary health
- Ambulatory care (OPD)

Aged care research

- Focus for next 12 months
- Goal to establish metrics (HPPD or ratios) for categories of residents in aged care
- National project

What have we learned?

- Nothing will happen without action
- That employers never stop their attacks on staffing – biggest cost
  - Enforcement is almost as important as the system itself
- Evidence is critical
  - Timings studies
  - Knowledge of the literature
  - What the impacts of system/process change will be for staffing and workloads

Thank you