SAFE Staffing HEALTHY Workplaces

CCDM

Care Capacity Demand Management

NZ District Health Boards & Health Unions working together

staffing *methodology*

FTE calculation – an introduction

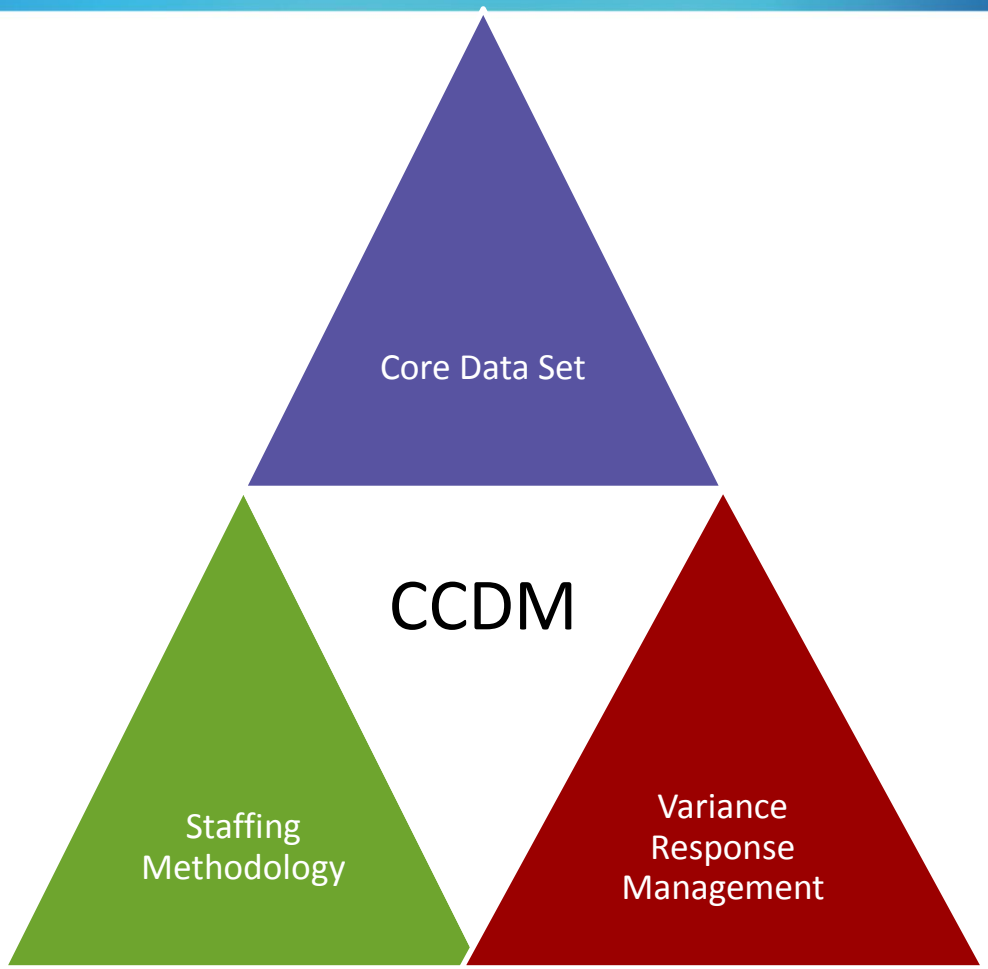
Safe Staffing & Healthy Workplaces Unit

May 2018

Session outline

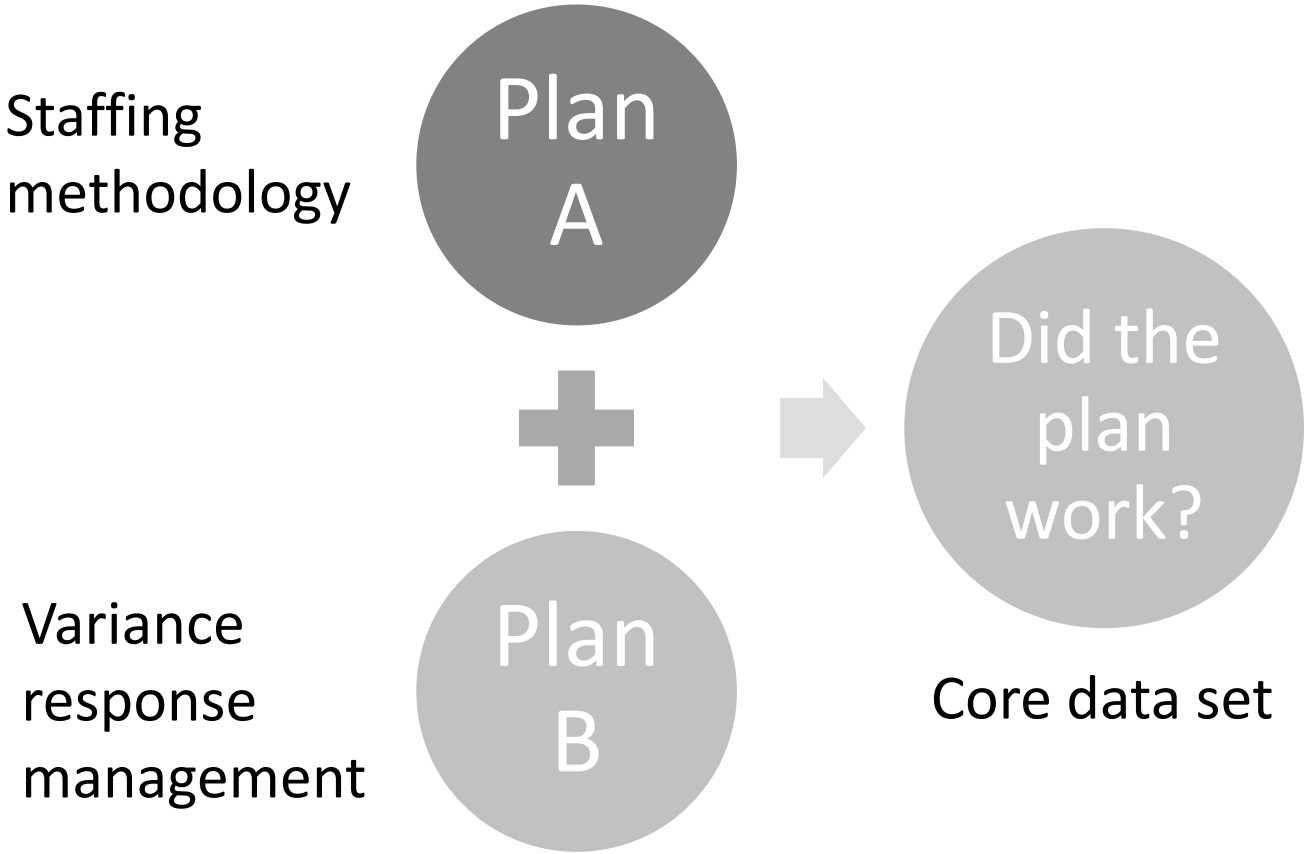
- Why do an FTE calculation?
- Which wards/units are eligible?
- When should you do an FTE calculation?
- What is included in the FTE calculation?
- How is the process managed?
- Who should be involved?

CCDM programme



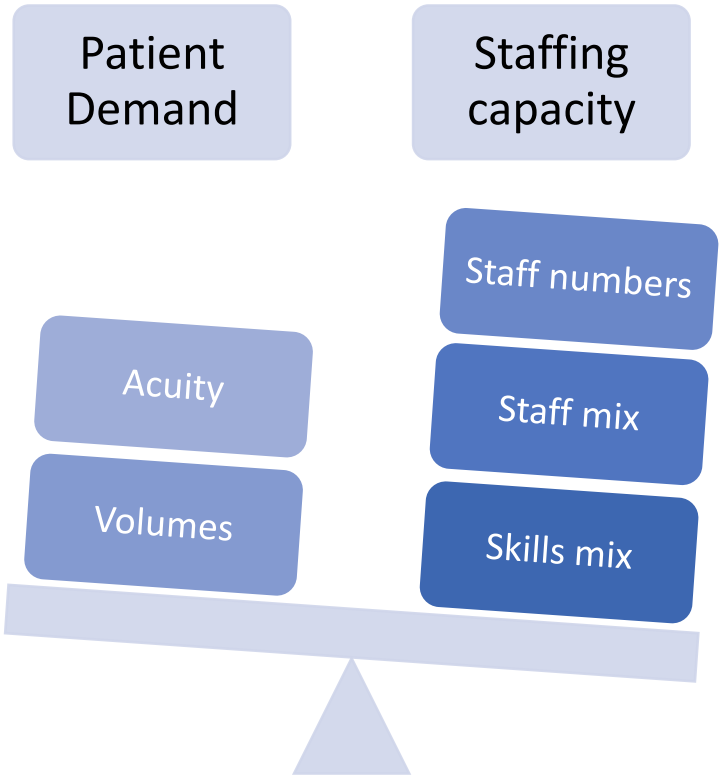
Partnership + Governance + Validated Patient Acuity

Fit with CCDM programme



Staffing Methodology

- Work Analysis
- FTE Calculation
  - Systematic process for establishing the staffing FTE needed to deliver the care hours required by patients



Why do an FTE calculation?

- Budgets set on historical staffing levels
- Concerns that leave loading is inadequate
- Staffing budgets under financial pressure

Alarm over $138 million DHB saving plan

Tuesday, Feb16, 2016

Hospitals have been told to make $138 million in savings over this financial year and some have signalled they'll cut costs through staff vacancies which have not been filled. It has prompted claims of increased safety risks to patients because of stressed out and tired staff who are not being allowed to take the holidays they are owed.

Hutt Valley DHB plans to save almost a third of the expected $6.73 million it needs by targeting staff, saving $1.9 million through "holding vacancies in mental health and Regional Public Health". It was also saving money through "holiday roster planning" and cutting back on the use of temporary staff.

Why do an FTE calculation?

- The CCDM methodology is systematic
- Supports effective rostering AM, PM, N and every day of the week
- Meets annual MECA entitlements e.g. annual leave, professional development
- Reduces effort and time spent on variance response management
- Provides an explanation of variance to budget

Why do an FTE calculation?

- The FTE calculation supports:
  - Attainment of Health and Disability Service Standards
    - *2.8.1 There is a clearly documented and implemented process which determines service provider levels and skill mixes in order to provide safe service delivery*
  - Attainment of the
    - Health & Safety Act
    - NZ Triple Aim
    - NZ Health Strategy
  - Right staffing backed by research

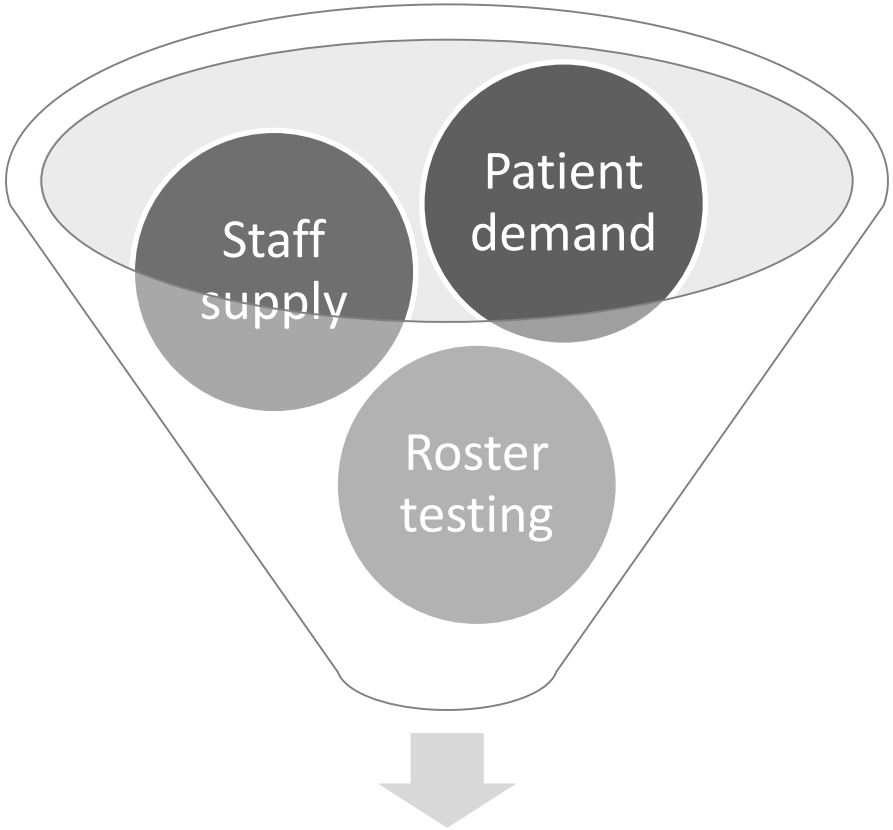
Which wards/unit are eligible?

- FTE calculations can be done in wards or units that have:
  - a validated patient acuity tool
  - 12 months of reliable data
- FTE calculations can be performed across multiple units simultaneously or in one ward/unit at a time
  - There are pros and cons to both approaches

When should you do an FTE calculation?

- Annually before setting the budget each year
- Before, with or after the work analysis
- When indicated by two or more of the following:
  - Complaints (patient or staff)
  - Adverse events (patient or staff)
  - Significant nursing hours variance
  - Excess annual leave accrual
  - High or increasing sick leave
  - High or increasing casual use and overtime
  - Suspicion of miss-matched roster

What is included in the FTE calculation?

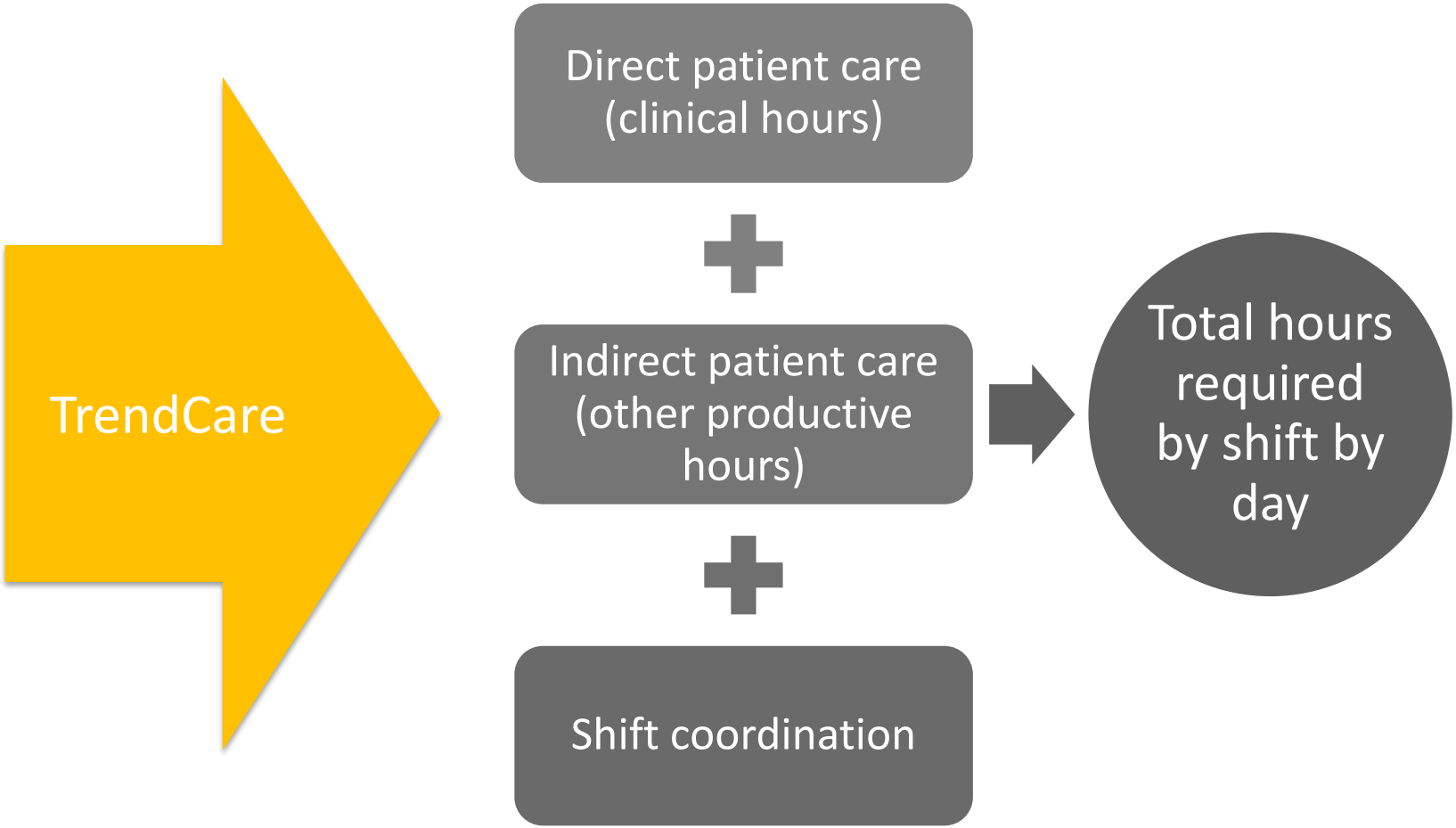


Recommended roster + FTE

1. Patient demand

- Patient demand for care comes from a patient acuity system
- Data integrity and quality must be verified
- Patient demand for care includes:
  1. Direct patient care (clinical hours)
     - Patient acuity and bed utilisation
     - 12.5% buffer
     - 1:1 care hours
  2. Indirect patient care (other productive hours)
  3. Shift coordination

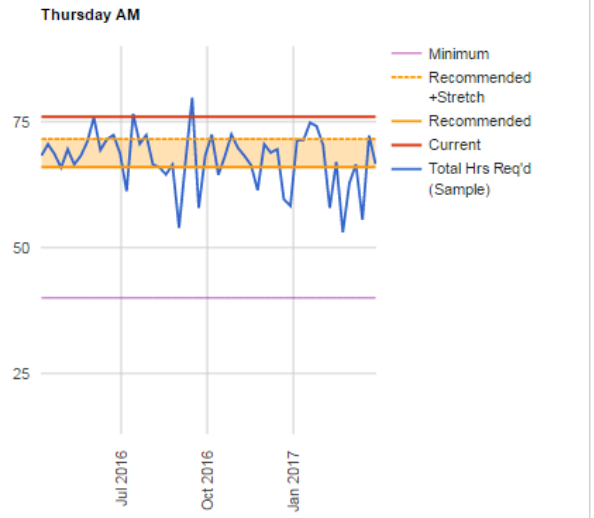
Components of patient demand



2. Roster testing

- Total hours of care are plotted by shift and by day of week
- The average staffing hours (calculated by the software) are plotted by shift and by day of week
- A 8.5% stretch zone is used for decision-making
- Staffing hours are increased or decreased to obtain the least variance (both +ve and –ve)
- Hospital and ward context is considered
- Recommended roster selected by shift and by day of the week

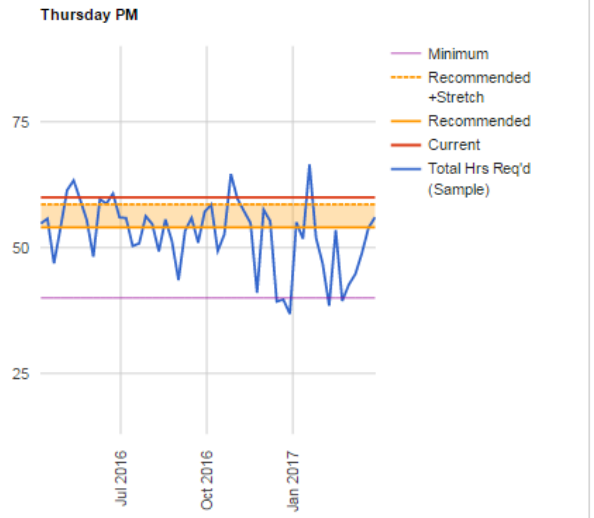
Roster testing



Current	76	OK	Surplus	Deficit
Occurrence		2	50	0
Percentage		4%	96%	0%

Recommended	66	OK	Surplus	Deficit
Occurrence		28	14	10
Percentage		54%	27%	19%

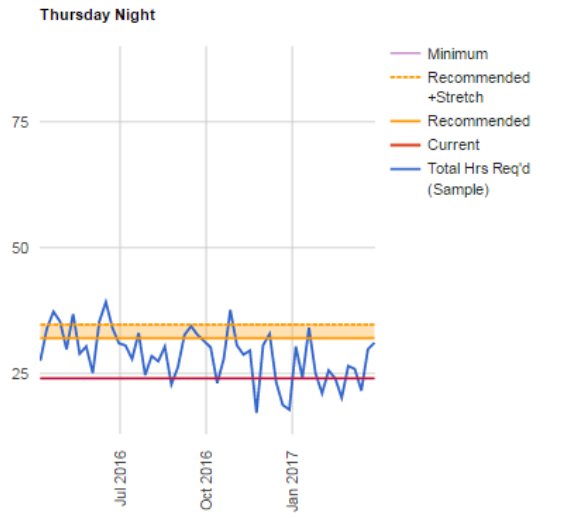
-6 Is Finalized



Current	60	OK	Surplus	Deficit
Occurrence		4	47	1
Percentage		8%	90%	2%

Recommended	54	OK	Surplus	Deficit
Occurrence		18	25	9
Percentage		35%	48%	17%

-2 Is Finalized



Current	24	OK	Surplus	Deficit
Occurrence		7	9	36
Percentage		13%	17%	69%

Recommended	32	OK	Surplus	Deficit
Occurrence		8	38	6
Percentage		15%	73%	12%

0 Is Finalized

Case Study - Surgical Ward. The current roster model for a Thursday morning was 9.5 FTE. The recommended roster was 8.25 FTE. The 'surplus' FTE was transferred to night duty where is was really needed. Staff accepted this change because they could 'see' the results and had been saying how 'busy' night duty was for some time.

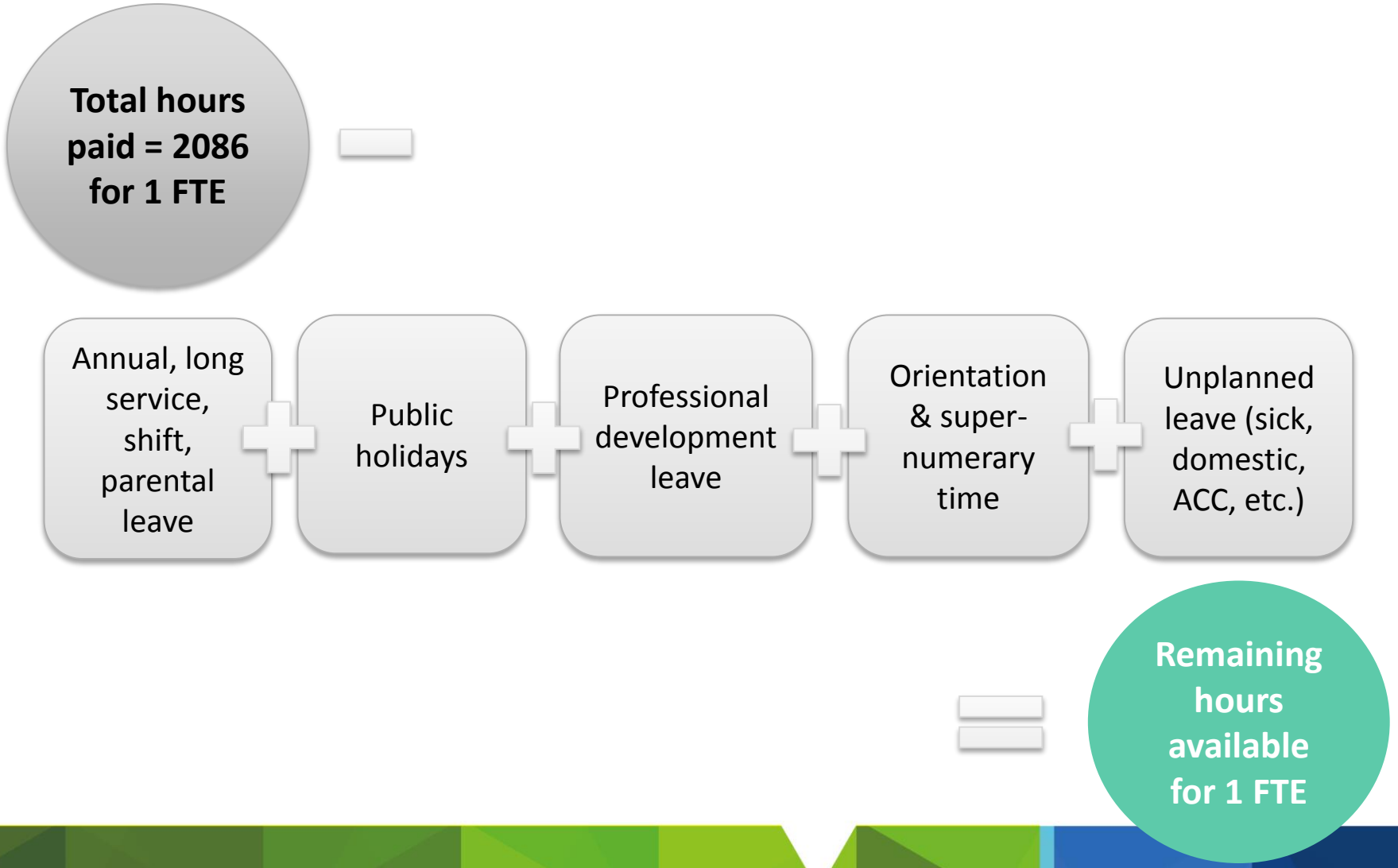
3. Staffing supply

- 1 FTE is paid for 2086 hours per annum
- However hours available vary depending on
  - Entitlements by role and experience level e.g. annual & study leave
  - Allocation for sick and parental leave

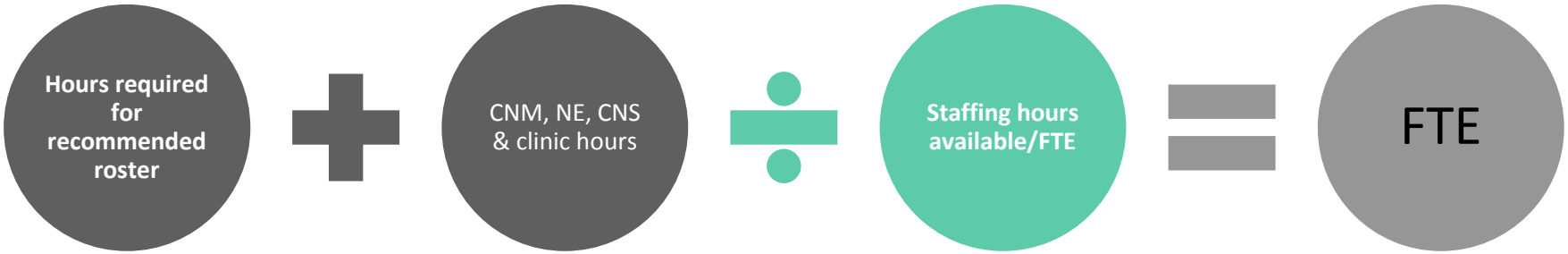
Table: Example comparison of hours paid with available based on 'defaults'

Role / Experience	Hours Paid (1 FTE)	Hours available	% hrs available
Existing nurse	2086	1666	80%
New experienced nurse	2086	1542	74%
Existing HCA	2086	1698	81%
New experienced HCA	2086	1654	79%
New graduate nurse	2086	1490	71%
Bureau nurse	2086	1666	80%
Clinical Nurse Manager	2086	1698	81%

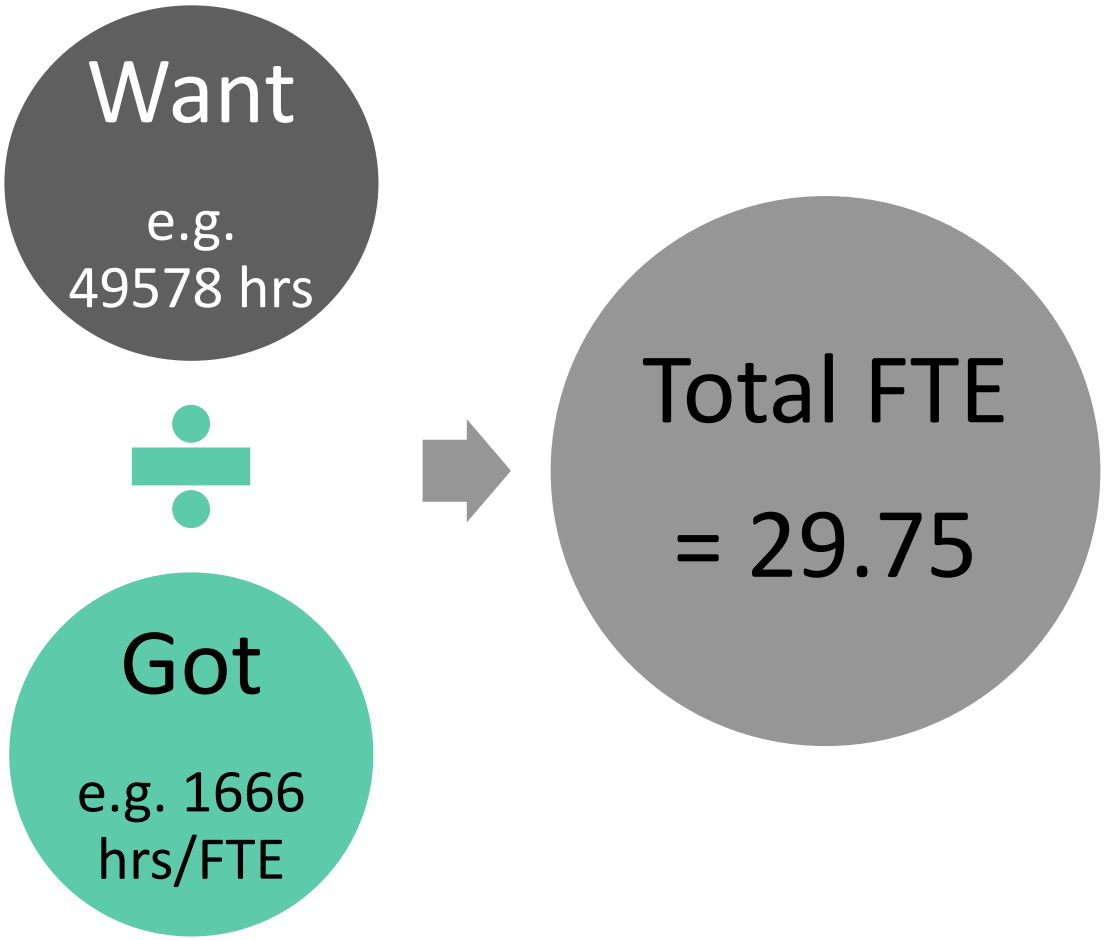
Components of staffing supply



Calculating the total FTE



Calculating the total FTE



How is the process managed?

Plan (4-8 weeks)

- **Plan the FTE calculation**
- Document a project plan including communications
- Select study wards/ units
- Engage with key stakeholders
- Establish roles & responsibilities including both parties
- Provide staff education

Do (4 weeks)

- **Collect and process the data**
- Verify patient acuity data integrity
- Establish patient care and staffing assumptions
- Input data into software

Study (4-8 weeks)

- **Study the results of the FTE calculation**
- Analyse graphs & variance response tables
- Determine the recommended roster & FTE
- Complete FTE calculation checklist
- Draft FTE calculation report

Act (8-12 weeks)

- **Act on the results of the FTE calculation**
- Finalise FTE report & recommendations
- Feedback to staff
- Implement changes (if any)
- Monitor outcomes (core data set)

Who should be involved?

CCDM council	• Authorise / endorse who, what, when, where • Provide resources and remove barriers • Ensure accountability and validity of process • Report to board and staff
Working group	• Verify validity of patient acuity data • Establish data inputs for patient care and staffing • Enter and check data
Health union	• Participate in CCDM council and working group meetings • Contribute to review of patient and staffing inputs • Support delegate and member education
SSHW unit	• Attend Council/working group meetings • Provide education sessions as needed • Supply document templates • Undertake FTE calculation for the first DHB ward / Set up software access

Keys to success

- Leadership (alignment of goals and priorities)
- Adequate resources (TrendCare, CCDM, IT)
- Precision planning and scheduling
- Communication and partnership
- Budget holders involved
- Predicting likely outcomes
- Exploring all options
- Operations centre – live patient management and TrendCare data

Questions?