Core data set directory - table

Note the measures:

1. Are a recommended minimum set. Wards/unit/services can add additional measures.
2. Include inpatient areas with a validated patient acuity tool.
3. Do not exclude other areas depending on the DHBs ability to collect and calculate the measures as described.
4. Should be trended over time using run charts or control charts.
5. Should be reviewed together to establish relationship or correlations between measures.
6. The 'Interpretation' column (and the 'If this, then check' tab) provides some guidance but is not limited to these notes.
7. Should be reported for each ward/unit, aggregated by directorate/service and aggregated for the hospital.
8. For a local data council may only include 4-6 of the measures reported for the ward.
9. Assume data sources are correct, including integrity and quality of the validated patient acuity system data.
10. Assume comparison of like staff groups e.g. RNs, EN & HCAs with RNs, ENs and HCAs. So the word 'staff' where used, needs to be defined by the DHB.
11. Are from a body of evidence that is largely nursing. However the measures may be applicable and relevant to other groups inclusive of midwifery and allied health.

Programme goal	Measure	Description	Rationale	Interpretation	Calculation	Unit of measure	Frequency	Data source
Quality patient care	Patient incidents	A patient incident is any event that could have or did cause harm to a patient (adverse event, near miss, reportable event). **Source:** https://www.hqsc.govt.nz/assets/Reportable-Events/Publications/Reportable-Events-Policy-Final-Jan-2013.pdf) **Examples include:** falls, pressure injury, hospital acquired infection, patient collapse/777, medication error etc.)	Patient incidents are an indicator of the quality of care provided to patients, the quality of the work environment and staffing (37, 38). Lower nursing staff levels are associated with increased patient mortality (4, 5, 39), failure to rescue (6, 7, 40), medication errors (8, 9, 10), falls (10, 11) and missed care (12, 13).	Trending ↑ = Negative/ flag Higher patient incidents may be caused by inadequate staffing levels, poor skill mix or poor staff mix (2), negative care hours variance and shifts below target. Higher patient incidents have a negative impact on patient experience, length of stay and increase costs of care.	The sum of all inpatient incidents reported.	Number for the date period, by ward, directorate and hospital.	Monthly	DHB incident reporting system
Quality patient care	Patient experience	Results from the patient experience survey as defined by the Health Quality Safety Commission. Reported as a total score (/10) from each of the four domains. **Source:** http://www.hqsc.govt.nz/our-programmes/health-quality-evaluation/publications-and-resources/publication/2812/. **Note:** This can not be drilled down to a ward level - reported by DHB only.	Patient experience is an indicator of the quality of care provided to patients. There is evidence that quality work environments and higher levels of registered nurses are associated with higher patient satisfaction (14, 37, 38). There is a significant association between positive nursing leadership styles, behaviours and practices, and increased patient satisfaction (18).	Trending ↑ = Positive/ improving Review with caution against other core data set measures as patient experience domains are not specific to nursing care. This data is not available by ward or directorate/service level.	As per Health Quality Safety Commission.	Number for each of the fours domains, by DHB	Quarterly	Health Quality Safety Commission
Quality patient care	Care rationing	All care that was missed, delayed, sub optimally delivered or inappropriately delegated, as reported by staff. Also defined as 'care left undone' due to lack of time, material resource, poor communication or teamwork.	Care rationing impacts on the quality of care provided to patients, patient experience and staff satisfaction/engagement. Lower levels of staffing are associated with missed care and failure to rescue (5,12,13). Care rationing impacts on nurse satisfaction and causes moral distress (36).	Trending ↑ = Negative/ flag Review along side care hours variance, shifts below target, staff mix, acute staffing shortage incidents, variance indicator score, patient incidents, patient experience and staff satisfaction/engagement.	Number of staff reporting care rationing divided by number of staff returning a survey x 100.	Percentage for the date period, by shift for the ward, directorate and hospital.	Quarterly	Work Analysis 'End of shift survey' or equivalent
Quality patient care	Staff mix	The number of regulated staff (RN, RM and EN) that worked, compared with all staff that worked expressed as a percentage for AM, PM and N shift.	Higher levels of RNs have been associated with better patient outcomes (2). Higher RN levels are associated with lower mortality rates (31, 35, 39) and failure to rescue (5). The majority of patient care requires RNs (2). RNs also contribute to the provision of coherent, quality nursing services through supervision, patient flow, team organisation and delegation (2). Monitoring the percentage of regulated nurses (RN, RM and EN) is a logical step towards ensuring the delivery of quality patient care.	Trending ↑ = Positive/ improving. Poor staff mix may be caused by increased patient acuity, unplanned leave or roster gaps. Poor staff mix should be reviewed with acute staffing shortages incidents, variance indicator scores, care rationing, patients/staff incidents, patient experience and staff satisfaction/engagement.	The number of regulated staff divided by number of staff x 100.	Percentage by AM, PM, N for the date period by ward, directorate and hospital.	Monthly	Validated Patient Acuity System, DHB pay roll or human resources system

Programme goal	Measure	Description	Rationale	Interpretation	Calculation	Unit of measure	Frequency	Data source
Quality patient care	Patient acuity	Patient acuity is the patient's level of dependence on nursing staff due to their care requirements. This is described as nursing hours required by patient acuity. **Source:** TrendCare glossary of terms (2016).	There is a strong association between patient acuity and dependency and nursing requirements (8, 10, 11, 28, 30, 31 & 32).	Trending ↑ = indicates increased patient acuity and/or volumes. Useful to chart with bed utilisation and total nursing hours or personnel costs. Review with staff mix, care hours variance and shifts below target, acute staffing shortage incidents, variance indicator scores, care rationing, casual use, overtime, hours worked over contact, and cancelled professional development.	The sum of hours required by patient acuity (clinical hours only).	Hours for the date period for the ward, directorate and hospital.	Monthly	Validated Patient Acuity System
Quality patient care	Bed utilisation	Bed utilisation reflects the throughput of patients during a calendar day – accounting for all discharges, deceased patients, admissions and transfers for the shift on which the patient received care. By shift AM, PM, N. **Source:** TrendCare glossary of terms (2016)	Bed utilisation is more sensitive to nursing workload than occupancy because it counts all admissions, discharges and transfers. The process of admitting or discharging a patient requires nursing hours in addition to those hours required to care for a patient already occupying a bed. Increasing patient turnover is associated with diminishing nursing hours (26, 27) and failure to rescue (28).	Trending ↑ = positive or negative (depends on starting point). Bed utilisation is best interpreted with patient acuity and total nursing hours. Increasing bed utilisation means more nursing workload and usually more nursing hours required.	The total throughput of all patients on a shift divided by the ward/units funded beds x 100.	Percentage by AM, PM and N for the date period by ward, directorate and hospital.	Monthly	Validated Patient Acuity System
Quality patient care	Care hours variance	The difference between the hours required by acuity for inpatient care versus the clinical hours available to provide care by shift (AM, PM, N). This is clinical hours or direct patient care hours only. **Source:** TrendCare glossary of terms (2016)	Matching nursing hours with the required patient care hours is a simple strategy for minimising care rationing, ensuring workloads are fair and reasonable, and efficiently using resources. Nursing hours have a significant impact on patient morbidity, mortality (4,7, 39) and incidents (10). Staffing levels must be set and assessed on a shift by shift basis (2).	Trending ↑ = positive or negative (depends on starting point) For the most effective results, workloads should be neither too high nor too low (also see 'shifts within target'). High workloads where care hours variance is low or negative indicates insufficient care hours for patient demand. This may be due to increased patient acuity, bed utilisation, roster gaps or unplanned leave. The consequences of insufficient care hours may include high casual use, overtime, hours worked over contract, acute staffing shortage incidents, care rationing, poor patient experience, increased patient incidents, higher staff unplanned leave, staff disengagement, high excess accrued leave, and staff turnover. Low workloads (where nursing hours variance is positive) indicates surplus nursing hours, minimum staffing levels or minimum staff/skills mix.	Hours required by patient acuity minus clinical hours available calculated for AM, PM and N.	Hours for the date period by shift for the ward, directorate and hospital.	Monthly	Validated Patient Acuity System
Quality patient care	Shifts below target	The number or percentage of shifts by AM, PM, N where the difference in the care hours provided and the care hours required was greater than negative 8.5% (or 40 minutes per FTE). **Worked example:** If there are 30 days in the month (or 90 shifts in total) and 25 shifts had more than negative 8.5% difference in hours between required and supplied, then the percentage of shifts below target = 25 / 90 x 100 = 27%.	Patient mortality increases with exposure to increased number of shifts below target (4, 10). Shifts below target is the companion measure to nursing hours variance. Nursing hours variance may be 400 hours for the month on PM shifts. However 9 of the 30 shifts may have had a negative variance of greater than 8.5% (or 40 minutes per FTE). Once 40 minutes per FTE has been breached there is increasing risk to patient safety, staff meal breaks, working overtime etc.	Trending ↑ = negative/flag The 'shifts below target' measure reflects the effectiveness of the base roster and variance response management. Shifts below target and care hours variance are both needed to determine if care capacity was matched to patient demand. Increasing numbers of shifts below target should be reviewed alongside roster gaps, unplanned leave, patient acuity, bed utilisation, acute staffing shortage incidents, variance indicator scores, care rationing, patient/staff incidents, patient experience and staff satisfaction/engagement.	Number of shifts within target divided by total number of shifts x 100	Number or percentage by AM, PM and N for the ward, directorate and hospital.	Monthly	Validated Patient Acuity System

Programme goal	Measure	Description	Rationale	Interpretation	Calculation	Unit of measure	Frequency	Data source
Quality patient care	Acute staffing shortage incidents	When a nurse considers they have reached the limits of safe practice (NZNO MECA Clause 6.0). This includes short staffing, inappropriate staff mix, influx of patients and/or unexpected increase patient acuity.	Reporting of acute staffing shortages is a MECA requirement. In these circumstances emphasis is placed on professional judgement. Poor perceptions of staffing adequacy and perceived psychological strain are linked to increased patient mortality, falls, medication errors and missed care (12, 15).	Trending ↑ = negative/ flag Acute staffing shortage incidents may be caused by inadequate staff mix, care hours variance or shifts below target. The consequence of increasing staffing shortage incidents may include increased patient/staff incidents, poor patient experience and staff dissatisfaction.	Sum of all acute staffing shortage incidents reported by staff working in inpatient wards/units.	Number for the date period by ward, directorate and hospital.	Monthly	DHB incident reporting system
Quality work environment for staff	Variance indicator score	An early warning score alerting the hospital to a care capacity demand mismatch (surplus or deficit) in a ward/unit. There are 5 colours that indicate the ward's current state from surplus capacity (mauve) to serious shortfall in capacity (red).	The variance indicator scoring system is a combination of subjective and objective measures set up by the DHB. The critical factor for shift safety is RN professional judgement (42). Poor perceptions of staffing adequacy and perceived psychological strain are linked to increased patient mortality, falls, medication errors and missed care (15, 42).	Trending ↑ = negative/ flag Increasing variance indicator scores for red + orange may be caused by poor staff mix, negative care hours variance, shifts below target, increased patient acuity or bed utilisation, roster gaps and late discharges. Increasing red + orange variance indicator scores should also be viewed for impact i.e. care rationing, acute staffing shortages, patient incidents, staff incidents, patient experience and staff satisfaction/ engagement.	The sum of the number of times in 'red + orange' and the number of times in 'mauve' for the month, calculated separately for each by AM, PM and N.	Number for the date period, by shift for ward, directorate and hospital.	Monthly	DHB variance indicator system
Quality work environment for staff	Roster gaps	Roster gaps are the degree to which the posted/planned roster matches the roster model. The roster model (established from the staffing methodology) is the best match of FTE to demand by shift and by day of the week. The posted/planned roster is the roster that is published not less than 28 days prior to the commencement of the roster (MECA clause 6.5). **Worked example:** Roster model = 384 shifts for the calendar month (calculated by adding up all FTE for each shift and each day of the week for the calendar month). Posted roster = 372 shifts rostered 384 - 372 = 12 i.e. there is a gap of 12 shifts in posted roster.	The roster model affords the best starting point for right staffing. The posted roster should therefore match the roster model. Having a posted roster that matches the roster model provides the best plan for having the right staffing on the day. If you start with a mismatch then you are planning to need a variance response. This is neither efficient nor effective care capacity demand management. Posted rosters that have too few or two many staff are costly.	Trending ↑ = positive/ improving Trending ↓ = increasing mismatch between the posted roster and the roster model This is commonly due to inadequate budgeted FTE, vacancy, long term sick leave or poor rostering. This means more variance response will be required every day, every shift. This is avoidable time spent by the ACNM, CNM and DNMs looking for and/or moving staff. It may also mean greater risk to patients from inadequate staffing (numbers, staff mix or skill mix).	Total shifts on roster model minus the total shifts on posted roster.	Number of shifts for the date period, by ward, directorate and hospital.	Monthly	Roster audit or summary from DHB roster system
Quality work environment for staff	Overtime	Overtime includes any extra paid hours that a nurse is required to work beyond their contracted hours at either end of their shift (2). Overtime is defined as per the MECA. Includes payment for missed meal breaks. **Example from NZNO:** *Overtime is time worked in excess of* *(i) eight hours per day or the rostered duty whichever is greater or* *(ii) 80 hours per two week period*	Overtime should be for exceptional circumstances only. Working long hours is strongly associated with adverse outcomes for nurses and increased risk of error (16, 17), increased staff tiredness results in loss of goodwill and paying overtime costs more money.	Trending ↑ = negative/ flag Routinely working overtime at either end of the shift indicates a shortfall in nursing care hours at the right time of the day. It may also be due to inappropriate staff mix (or skills mix). This measure is useful to interpret with care hours variance, shifts below target, late discharges, hours worked over contract, patient/staff incidents, patient experience and staff satisfaction/ engagement.	The sum of all hours paid as overtime.	Hours for the date period by ward, directorate and hospital.	Monthly	DHB pay roll system

Programme goal	Measure	Description	Rationale	Interpretation	Calculation	Unit of measure	Frequency	Data source
Quality work environment for staff	Extra shifts	All staff hours worked that are additional to their normal contracted hours of work. This applies to part time staff only. **Example:** a nurse may be contracted to work 24 hours per week but actually works 32 hours. **Note:** This differs from the NZNO definition of overtime as the nurse may not exceed 8 hours per day or 80 hours per fortnight, but is still working additional hours to contract.	Additional shifts worked by part time staff is an important and valuable part of the variance response management system. There is a strong positive relationship between working long hours and adverse outcomes for nurses (17). Working additional shifts may place the staff member under undue pressure to support their team in times of need and adversely effect work-life balance resulting in tiredness, reduced resilience and increased stress (2). Increased perceived psychological strain on nurses is associated with higher rates of patient mortality, falls, and medication errors (15).	Trending ↑ = Negative/ flag Staff routinely undertaking extra shifts indicates a shortfall in nursing care hours on the base roster. The cause is likely to be increased bed utilisation, patient acuity, roster gaps, staff mix, care hours variance and shifts below target. The consequences may include patient/staff incidents, poor patient experience and staff dissatisfaction or disengagement. Working over contract costs more. The part time staff member accrues more annual leave and is paid at a higher average salary for annual leave. There may also be a legitimate challenge to the contracted hours when compared with custom and practice.	Sum all paid hours (excluding paid overtime) minus sum all contracted hours.	Hours for the date period by ward, directorate and hospital.	Monthly	DHB pay roll system
Quality work environment for staff	Staff incidents	A staff incident is any reported event that could have or did cause harm to a staff member (adverse event, near miss, reportable event). Examples include: accidents, needle sticks, back injuries, slips, verbal abuse etc. **Source:** 1. Work Safe Notifiable Events: http://www.worksafe.govt.nz/worksafe/notifications-forms/notifiable-events e.g. death, serious injury, illness or incident where person exposed to serious or immediate risk to health and safety 2. Reportable Events Guidelines (MoH, 2001): https://www.health.govt.nz/system/files/documents/publications/reportableevents.pdf 3. MECA Clause 30.3	Staff injuries cause significant individual and workplace impact. Staff incidents are more likely to occur when staff are under time pressure, tired or inexperienced or in the presence of increased workplace hazards (hours, complexity and workload) (1,3).	Trending ↑ = Negative/ flag The causes of staff incidents are multifactorial. Contributing factors include increasing workload (bed utilisation, patient acuity) without the right resources (staff mix, care hours variance, shifts below target) resulting in increased work effort (overtime, hours, worked over contract).	Sum all reported staff incidents.	Number for the date period by ward, directorate and hospital.	Monthly	DHB incident reporting system
Quality work environment for staff	Staff unplanned leave	The total unplanned or short notice leave hours taken by staff e.g. sick, domestic, bereavement, ACC. This includes sick leave hours paid, unpaid or paid as annual leave. Includes staff on permanent contracts only.	Sick leave is one indicator of the health of the workplace. Burnout and job stress increase staff absenteeism due to sickness (19).	Trending ↑ = Negative/ flag Staff unplanned leave should be interpreted with staff satisfaction/engagement, nursing hours variance, shifts below target, excess accrued annual leave, casual use, overtime, and working above contracted hours.	Sum of hours taken for unplanned leave.	Hours for the date period by ward, directorate and hospital.	Monthly	Validated Patient Acuity System or DHB pay roll system
Quality work environment for staff	Staff satisfaction/ engagement	Staff experience of the work environment is measured by staff satisfaction or engagement surveys, as per the DHB staff survey process.	Staff satisfaction/engagement is an indicator of a healthy workplace. Engaged staff are high performing staff. Engaged staff provide better care to patients (2, 20). Evidence shows that work environments are associated with patient outcomes (11, 21). Perceptions of good organisational climate are associated with positive employee outcomes such as reduced burnout, depression and anxiety (22). Nurses reporting better staffing are less likely to report emotional exhaustion and job dissatisfaction (23). Workplace empowerment has a positive relationship to job satisfaction (24).	Trending ↑ = Positive/ improving. Staff satisfaction/engagement should be interpreted with care rationing, variance indicator score, acute staffing shortage incidents, overtime, hours worked over contract, casual use, care hours variance, shifts below target, staff mix, staff and patient incidents.	Number staff stating overall satisfaction or engagement divided by number of staff survey responses x 100.	Percentage for the date period, by ward, directorate and hospital.	Quarterly	Work Analysis 'End of Shift Survey' or DHB specific survey

Programme goal	Measure	Description	Rationale	Interpretation	Calculation	Unit of measure	Frequency	Data source
Quality work environment for staff	Staff professional development	All paid hours for staff to attend professional development activities which are additional to mandatory training and hospital training. 'Paid leave to meet organisational and service requirements, ….shall be granted in addition to provisions [for professional development leave]. The employer will meet any associated costs (MECA clause 27.3)'. Includes staff working in inpatient areas only.	Readily available staff training and ongoing development are key aspects of a healthy workplace (1). Ongoing training and education are also fundamental to providing safe and effective patient care (2). Higher levels of education are associated with fewer falls (21) and lower mortality (38). The risk of patient adverse outcomes is lower in clinical areas with professional models of care and higher nurse skills levels (25). Attending paid professional development activities is a MECA entitlement.	↑ = Positive for staff and patients. May be negative for roster and personnel costs. The hours paid for professional development should be assessed against the established budgeted plan. Variance to plan should be assessed for cause e.g. care hours variance, roster gaps, staff mix, shift below target. Low levels of professional development should also be reviewed for impact on staff satisfaction/engagement, patient incidents and engagement.	Sum of paid professional development hours.	Hours for the date period by ward, directorate and hospital.	Monthly	DHB pay roll system
Best use of health resources	Casual use	Hours paid to staff working in inpatient areas on casual contract (e.g. RN, HCA, EN) compared with total hours worked by staff on permanent contracts (e.g. RN, HCA, EN). As percentage of total hours of care.	Casual staff play an important role in the hospitals variance response management system. However, increasing or persistently high casual use is of concern for several reasons. Casual staff may not be familiar with the environment or have the same skill set as the staff they are replacing. Team function can be altered by high levels of casual staff. Casual labour may also directly and indirectly cost more.	Trending ↑ = Negative/ flag Regular use of casual staff indicates a shortfall in budgeted FTE, roster gaps (e.g. persistent vacancy or long term sick leave) i.e. the posted roster does not match the roster model or significant unmatched increase in bed utilisation or patient acuity . High casual use may impact on patient/staff incidents patient experience and staff satisfaction/engagement. This may in turn exacerbate unplanned leave.	Sum of all hours worked by staff on casual contract. Sum of all hours worked by staff on casual contract divided by all hours worked x 100.	Hours and %	Monthly	Validated Patient Acuity System DHB pay roll system
Best use of health resources	Total staff hours	The total hours includes all productive (clinical and other productive hours) and non-productive (annual, sick, bereavement) hours . Includes casual staff.	It is important to see the total hours so that the dollar spend can be accounted for in terms of productive and non-productive hours. Nursing hours have a significant impact on patient outcomes such as morbidity, mortality (4, 7, 39) and incidents (10).	Trending ↑ = Positive or negative (depends on cause and source of increase e.g. productive or non-productive) The total nursing hours is useful in comparison to nursing personnel costs, bed utilisation, patient acuity, professional developed and accrued annual leave. Significant increases and/or decreases from one month to another requires further investigation of the cause e.g. an increase in patient one to one care.	Sum of all hours paid to staff on casual and permanent contract.	Hours for the date period by ward, directorate and hospital.	Monthly	Validated Patient Acuity System
Best use of health resources	Excess accrued leave	Excess accrued leave is an annual leave balance in excess of 24 months worth of the current annual entitlement (MECA, clause 13.4). **Example:** Total Annual Leave balance = 240 hours. Annual entitlement 160 hours with FTE of 0.60 equates to an annual entitlement for this employee of 96 hours per annum (160 x 0.60) With a current balance of 240 hours, this equates to 48 hours excess accrued leave (240 - (96 X 2) = 48)	A healthy work environment has the health and wellbeing of the person as its primary objective (1). Annual leave entitlements exist to support staff take adequate breaks from work. Excess annual leave indicates staff are not taking or unable to take their annual leave. Excess annual leave is a financial liability for the DHB.	Trending ↑ = Negative/ flag Excess annual leave accrual may be due to insufficient budgeted FTE, roster gaps (vacancy, long term sick leave) i.e. the posted roster does not match the roster model. The impact of excess accrued leave can be seen in total nursing hours personnel costs. Excess accrued leave may also impact on staff tiredness, satisfaction and engagement.	Total annual leave balance - (annual entitlement x 2 x FTE)	Hours for the date period, by ward, directorate and hospital.	Monthly	DHB pay roll or human resource system
Best use of health resources	Late discharges	The DHB sets a discharge time for inpatient areas. Late discharges are therefore after the pre-set time. E.g. Patients discharged after 1100 on their expected date of discharge. **Source:** TrendCare 2017	Late patient discharges impact in two ways. They result in bed-blocking and a peak in nursing workload. In both circumstances there is often no additional capacity (beds or staff). Efficient and timely discharge processes are key to patient flow (29).	Trending ↑ = Negative/ flag Late discharges may be caused by staff mix, care hours variance or shift below target. Late discharges may falsely elevate the care hours required resulting in 'surplus' once the patient leaves. Late discharges impact on the ED target and operating theatre.	Sum of patients discharged late on their expected date of discharge divided by total number of patients discharged that day x 100.	Percentage	Monthly	Patient Management System or Validated Patient Acuity System.

Programme goal	Measure	Description	Rationale	Interpretation	Calculation	Unit of measure	Frequency	Data source
Best use of health resources	ED length of stay	The ED Length of Stay Target is the 'Shorter Stays in Emergency Department (ED)' i.e. Patients admitted, discharged, or transferred from the ED within six hours. The target is 95%. Can only be reported by specialty e.g. general surgery, gynaecology. **Source:** http://www.health.govt.nz/new-zealand-health-system/health-targets/about-health-targets/health-targets-shorter-stays-emergency-departments.	This is a national DHB performance measure. The target is a measure of the efficiency of flow of acute (urgent) patients through public hospitals and home again.	Trending ↑ = Positive/ improving Where ED target is not being met, review against late discharges, bed utilisation, staff mix, casual use, care hours variance and shifts below target.	Sum of patients admitted, discharged, or transferred from ED within six hours divided by total number patients seen x 100.	Percentage for the date period by specialty and hospital.	Monthly	DHB reporting system
Best use of health resources	Personnel costs	The dollar amount spent per month on personnel costs (e.g. nursing, HCA). Includes personnel costs for casual staff.	Nursing is the largest workforce and therefore one of the biggest investments in providing healthcare services. DHBs are responsible for best value for public health system resources. A logical step in achieving this is to monitor the spend on nursing personnel costs. Some studies suggest higher staff costs are off set by better patient or system outcomes (4,7). Higher staffing levels are associated with lower hospital use in terms of length of stay (30, 32, 33) and re-admission (34).	Trending ↑ = Negative/flag if not justifiable. Personnel costs are best interpreted with a number of other measures including unplanned leave, professional development, annual leave accrual, bed utilisation, patient acuity, staff mix, casual use, hours worked over contract and overtime.	Sum of all dollars paid to staff	Dollars for the date period, by ward, directorate and hospital	Monthly	DHB pay roll system