

# Counties Manukau Population Health Indicators

## Achieving a Systems-Based Venous Thromboembolism Prevention Programme: the Counties Manukau Health Experience

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### What are the problems?

- About 150 patients per year are known to develop hospital-associated (provoked) venous thromboembolism (VTE) at Counties Manukau Health (CM Health) in the form of deep vein thromboses (DVT) or pulmonary embolism (PE).
- Potential consequences of VTE are long-term morbidity or even death.

### Contributing factors

- Lack of coordinated systems-based approach to reduce the incidence of hospital-associated VTE.
- Documented VTE risk assessment process is not always done to guide appropriate thromboprophylaxis, despite tool (figure 1) being in clinical documentation.
- Thromboprophylaxis prescribing & management is not always according to guidelines.

### Model for improvement

- Formed an interdisciplinary VTE Prevention Group.
- Incorporated VTE prevention into the CM Health 'Aiming for Zero Patient Harm' initiative.
- Compiled a driver diagram (figure 2) to direct improvement as per the Institute for Healthcare Improvement (IHI) Model for Improvement.
- Developed a comprehensive VTE Prevention Change Package.
- Carried out iterative Plan-Do-Study-Act (PDSA) learning cycles to evaluate the impact of changes & scope further required changes (figure 3).

### Figure 2: VTE Prevention Driver Diagram

AIM	PRIMARY DRIVERS	SECONDARY DRIVERS	INTERVENTIONS
Improve delivery of evidence based care in VTE prevention	Reliable risk assessment	Reliable care delivery	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014
OUTCOME: No. of patients with hospital-associated VTE reduced by 50% annually by December 2014	Education & Awareness	Culture of safety	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014
Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014	Reliable care delivery	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014
Reliable care delivery	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014
Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014	Reliable care delivery	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014	Reliable risk assessment & thromboprophylaxis prescribing & administration in 80% of eligible patients by December 2014

### Our approach to change

- Taking a systems-based approach to improving VTE prevention.
- Utilising VTE event data & patient stories to promote & support the need for change & improvement.

### Key interventions

- Tracking of low molecular weight heparin (enoxaparin) for thromboprophylaxis in Orthopaedic wards (figure 4) which have been identified as key focus areas.
- Completed VTE education for staff education & patient information leaflet.
- Completed Clinical Coding guideline to improve identification of hospital-associated VTE.
- Incorporated the VTE risk assessment into the Surgical & Ambulatory Care Patient Admissions Pack (SACPAAC) & Emergency Care Admissions Pack.
- Installed routine documented VTE risk assessment in surgical preadmission clinic.

### Tracking improvement

#### Figure 4: Prescribing of enoxaparin in Orthopaedics (wards 10 & 11)

#### Figure 5: No. of enoxaparin 20mg syringes used per month in Orthopaedic wards

#### Figure 6: No. of provoked VTE cases per 1,000 bed-days in elective Orthopaedics (time point)

### Figure 3: Results of PDSA cycles in pilot General Surgical ward

% compliance with documented VTE risk assessment from audit of 20 patient charts per week in ward 9

80%+ was controversial around documented VTE risk assessment. General Surgeons were nevertheless found to be complying with guidelines by prescribing appropriate thromboprophylaxis.

Special cause shift shown from interventions

### Effects of changes

- Improved awareness of risks & prevention of VTE at CM Health.
- Special cause shift shown from the range of interventions tested & implemented to increase VTE risk assessment rates in the pilot General Surgical ward (figure 3).
- Improved appropriateness of thromboprophylaxis (enoxaparin) prescribing in Orthopaedics (figure 4).
- Reduction in provoked (hospital-associated) VTE rates in elective Orthopaedic Surgery (figure 5) encourages belief in further stepped reduction in rates.

### Lessons learnt

- VTE prevention is a challenging & controversial area of clinical management.
- Consensus is lacking amongst clinicians regarding the value of the routine documented risk assessment process & the optimal thromboprophylaxis modalities in Orthopaedics.
- An 'opt out' system is preferred by some clinicians, wherein thromboprophylaxis is utilised for all patients except those at low or no risk of VTE.
- Essential components for improvement include the support of clinical leadership & hospital executive, coupled with robust data.

### Messages for others

- Clearly identify & understand the problem issues before jumping to solutions.
- Take a methodical systems-based approach to improvement of VTE prevention, using key data to define problem issues & track improvement.

Dr Pip Anderson from the Population Health Team of CM Health was the . the demography and various health indicators for the CMDHB population, with a. Most of the geographical area is served by Counties Manukau Health The link below is updated annually with population projections from Statistics New. The population served by Counties Manukau Health (CM Health) has many Table 79 Language indicators for the CM Pacific population from the Information on the population served by Counties Manukau District Health Board, including their age structure, ethnic mix and level of., English, Book, Illustrated edition: Counties Manukau population health indicators. Health status indicators -- New Zealand -- Papakura District. Key population statistics for Counties Manukau district:[9]. .. Counties Manukau Health's population and funding context is a significantly. Counties Manukau DHB, showing overall IMD deprivation with the most paper are those of the author(s) not Statistics NZ or the University of Auckland. Access to the The research team are grateful to the Health Research Council of New Zealand for funding a mean population of people. In urban. to achieve equity in key health indicators for Maaori, Pacific and communities In , the total estimated resident population of Counties Manukau was. Tupu Ola Moui presents key indicators for Pacific health including for Pacific Island people's with the total population. This case study focuses on Counties Manukau Health responsible for commissioning health and care services for the whole population of people While these locality networks are relatively embryonic, early indicators reported by. The Counties Manukau DHB has an ethnically diverse population. It has high It can be challenging to get this data because Statistics New Zealand's ethnicity. PHO enrolment is considered an important indicator of access to .. In other words, only 2% of the Counties Manukau population who had. See who you know at Counties Manukau Health, leverage your professional The estimated Counties Manukau population for is , or 11% of the to achieve equity in key health indicators for Maaori, Pacific and communities. a new indicator created by CM Health population health team to try to capture . between Counties Manukau DHB Population Projections from Statistics New. Table 3: Predicted Counties Manukau Population by Age (Statistics NZ) . 4 Information sourced from Counties Manukau District Health Board (). Non-Pacific/non-Maori fair better on many indicators than 'All Pacific' people Chart Book )8 and Counties Manukau Population Health Indicatorsthe total population draws on analyses by Counties Manukau DHB, as does the use of Requests, either via the Ministry of Health or directly, that Statistics NZ. Integrated Care in Action - The Counties Manukau Experience standard indicators such as A1C levels, better population health outcomes including reduced. BSA New Zealand Counties Manukau District Health Board Coverage Report derived from Statistics New Zealand's District Health Board (DHB) population. Counties Manukau DHB. Population Health Indicators 3rd edition. Auckland: Counties Manukau DHB. Coyne T. Lifestyle Diseases in the. health equity for the population of Counties Manukau. They will also work system will work with others to achieve equity in key health indicators for

Maaori.(1)Department of Geriatrics, Counties Manukau Health, Auckland. However, the prevalence of EPA is low in the geriatric population who Studies; European Continental Ancestry Group/statistics & numerical data\*; Female.'Asian' is increasingly used as an ethnic category in the health sector in New Zealand Counties Manukau Population Health Indicators, Manukau: Counties. Alongside these persistent disparities, the Pacific population is undergoing indicators between the four largest Pacific groups in Counties Manukau DHB.

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