Metro South Health

Princess Alexandra Hospital

Mind the Gaps

Current status of quality and safety of general medicine services in Queensland public hospitals

Report of the Statewide General Medicine

Clinical Network Mind the Gaps Survey

July 2018

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Queensland Government

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EXECUTIVE SUMMARY

Background
In December 2017 the Statewide General Medicine Clinical Network (SGMCN) endorsed the Mind the Gaps position statement which stated 45 recommended standards for delivery of general medicine services in Queensland public hospitals. A survey of directors of general medicine, senior managers, nursing and allied health staff in general medicine services and members of SGMCN was then undertaken to determine the alignment of current operations with the stated standards, and to identify deficits and possible remedial strategies. Development of a set of performance indicators of care to be used for future service monitoring was a secondary objective.

Methods
A network-wide electronic survey of SGMCN members conducted February through April 2018 gauged the extent of perceived alignment of general medicine services with the standards. In addition to tick-box response options, respondents could also provide free-text comments. Survey responses were thematically analysed in identifying key deficits in current services, and grouped as amenable to remedial strategies of high effect (quick wins), medium effect (significant organisational considerations) and low effect (complex with multiple barriers).

Results
98 of 280 survey invitees across 15 Hospital and Health Services responded (33% response rate; 31.3% medical, 26.3% nursing, 40.0% allied health, 2.4% non-clinical). The overall level of service quality and safety was rated highly optimised by 68% of respondents, partially optimised by 28%, poorly optimised by 2%. A third (36%) of respondents indicated unfavourable adherence to one or more standards, most frequently relating to staff and team dynamics (13%), governance/administration (8%), service resourcing (5%), and clinical care processes (5%). Most deficits (80%) were amenable to high effect remedies, 13% to medium effect remedies, and 7% to low effect remedies.

Major deficits nominated by at 25% or more respondents, with barriers and categorisation of remedial effects (in parentheses) comprised:

1) Use of substitutive care: delays to referral/access, limited service availability, misaligned workforce culture, insufficient program awareness and information (Medium effect)
2) Timely transfer of admissions from ED: delays in assessments/referrals, bureaucratic patient flow processes, bed unavailability, insufficient staff buy-in (Low effect)
3) Use of clinical protocols: limited access; non-universal agreement; limited applicability to multi-morbid patients (High effect)
4) Comprehensive geriatric assessment: lack of easy to use tools, limited time/ training/ workforce culture (Medium effect)
5) Advance care planning and acute resuscitation plans: limited time/training, family disagreements, uncertain prognostications (Medium effect)
6) Delayed discharges: unavailable post-hospital care, unmet special needs, administrative delays, family disagreements (Low effect)
7) Quality and safety performance: inadequate funding, fragmented care, patient complexity, no agreed KPIs, limited benchmarking, inaccessible data, siloed work cultures, no auditing, little clinician engagement by administrators (Low effect)
8) Specialty area development: costs, inaccessible specialist advice, workforce shortages, logistical difficulties (Low effect)

Inadequate staffing (45% respondents), poor process documentation (11%) and unmet rural/remote needs (11%) were key concerns. For one or more questions, 10% to 34% respondents were unsure, suggesting organisational ignorance in various domains. However, respondents were consistent in nominating processes as poorly optimised, with little apparent variation between different HHSs suggesting these problems are generic across the state.

A total of 22 remedial recommendations for improving general medicine services have been formulated for which SGMCN will assume responsibility in working up and implementing as part of its 2018-2020 strategic plan.

Conclusions
Statewide standard-practice gaps in general medicine services have been defined, with most gaps amenable to quick win remedies. More intractable gaps with significant unfavourable impacts on service quality will require more concerted remedial efforts at the organisational level, and, in some cases, increased funding. The SGMCN will work to develop, implement and evaluate multiple recommendations for improving general medicine services over the next 2 years.

OVERVIEW

Aims

The Mind the Gaps (MtG) project survey aimed to provide an evaluation of the level of optimisation of the quality and safety of general medicine services in Queensland public hospitals, as perceived by clinicians and managers working within those services. The Mind the Gaps (MtG) position statement from Statewide General Medicine Clinical Network (SGMCN) which contained 45 evidence-based recommended standards of care applicable to all general medicine units (Appendix 1) was used as the reference document in formulating questions and response options in the survey.

The survey had the following objectives:

- collect data from relevant medical, nursing and allied health practitioners within general medicine services across Queensland public hospitals in regards to current quality and safety of care within those services, in reference to the MtG position statement;
- identify patterns across HHS of what is and is not being used for service optimisation based on MtG recommendations;
- identify deficits and shortfalls which in some instances may require additional resources and support from QH or HHSs to remedy
- identify target areas for service redesign and/or quality and safety improvement interventions
- elicit suggestions from respondents in regards to strategies and solutions for improving services;
- facilitate comparisons across general medicine services in identifying and understanding variations in practice and service delivery
- use data derived from MtG recommendations and survey results to develop performance indicators for future monitoring.

Methodology

The MtG survey was developed and hosted on Google Forms, a secure Cloud-hosted database, to allow for flexibility and increased chance to maximise survey participation and completion, by virtue of its easy to use interface and ability to run on any device with an internet browser. Concerns regarding data sovereignty were considered and were determined to be low risk (Appendix 2). Participants were given access via URL link.

Responses were downloaded and analysed using supporting software (Microsoft Excel and QDA Miner Lite). Data analysis included collation and classification of discrete data, continuous data and qualitative assessment of free text responses to open questions used to identify respondent's perception of optimisation (e.g. favourable / unfavourable) and potential remedial strategies.

Survey responses were thematically analysed in identifying common patterns within the response data, with supplementary data fields used to better facilitate the translation of data into easier to understand information. In regards to potential remedial strategies and performance reporting, these were categorised and described as:

- High effect ('Quick Wins') – greatest potential for improvement that can be implemented with minimal material or resourcing barriers and predominately related to process orientated functions. Data to monitor performance theoretically available and accessible (subject to approvals);
- Medium effect ('Developing Risks') – potential for improvement subject to realistic assessment of significant material / resourcing barriers and data availability;

- Low effect ('High Risk Challenges') – requires cross disciplinary healthcare sponsorship and organizational endorsement of existing or new governance structures and processes to initiate and maintain ongoing resourcing needs. Availability of data unknown.

Participants

Survey participation was aimed to be fully inclusive of all Queensland public hospitals which had a dedicated general medicine unit or service supervised by at least one resident general physician. Survey invitations were targeted to all directors, corporate managers, senior nurses and allied health staff working in general medicine services in hospitals with 200 beds or more across the 15 largest Hospital and Health Services. These individuals and their e-mail addresses were ascertained from several sources: the Statewide General Medicine Physician Training Network and QH lists of directors and staff consultants of general medicine, SGMCN lists of members (medical, nursing and allied health), phone calls made to senior managers of individual hospitals by the survey data manager in identifying senior medical, nursing and allied health staff, and personal e-mail lists maintained by the SGMCN chair. Many email recipients were deemed proxy or departmental generic addresses, with requests to the recipient to forward the questionnaire link to any eligible participants.

This broad scope of invitees acknowledges that some recipients may not be suitable or able to fully complete the survey, and invokes uncertainty in determining the exact denominator of survey invitations when determining the response rate.

The survey was distributed from January to April 2018, with three separate mail outs and/or reminders during this period. To maximise response rates, respondents were kept anonymous and were only asked to nominate their discipline and HHS. To maximise completion rates, respondents were asked not to burden themselves by trying to find precise data for questions which involved estimating rates or percentages – their best guestimate would suffice. The survey questions in the most part comprised an opening stem summarising the MtG standard with a pop down list of response options with respondents choosing the single most appropriate response.

93 responses were received from an estimated 280 invitations (33% response rate). Figure 1 represents respondent discipline groups.

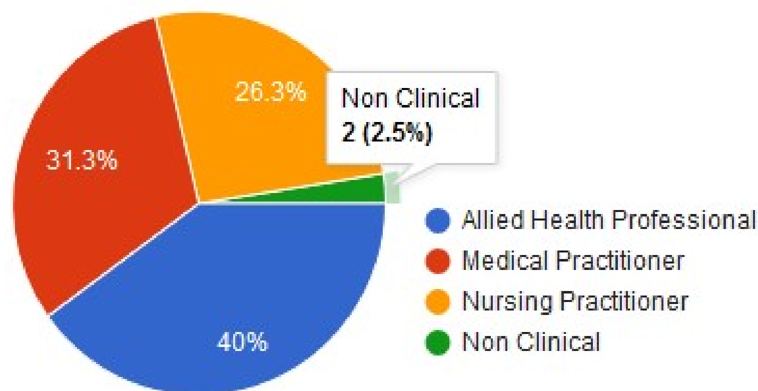

Figure 1: Distribution of survey respondents by discipline group.

RESULTS

The complete set of survey responses are contained in Appendix 3. The overall level of service quality and safety was rated highly optimised by 68% of respondents, partially optimised by 28%, poorly optimised by 2% (figure 2). The term 'highly optimised' is broadly used to classify consistently favourable, trackable and sustainable practices that respondents felt their workplace has established. A third (36%) of respondents indicated unfavourable adherence to one or more standards, most frequently relating to staff and team dynamics (13%), governance and administration (8%), service resourcing (5%), and clinical care processes (5%).

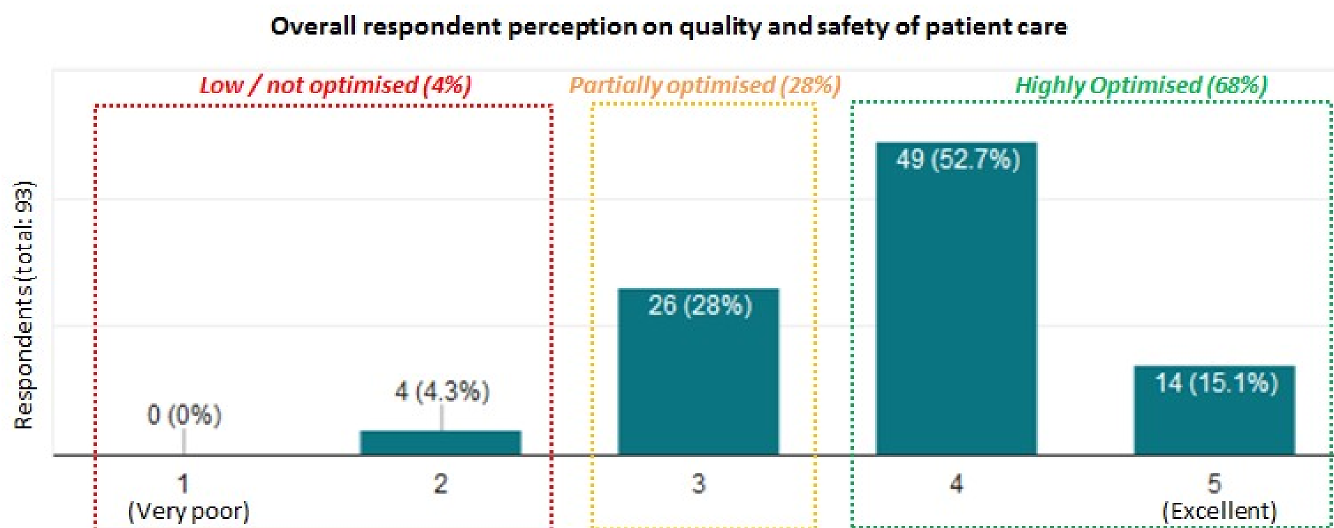

Figure 2: Perception of optimisation.

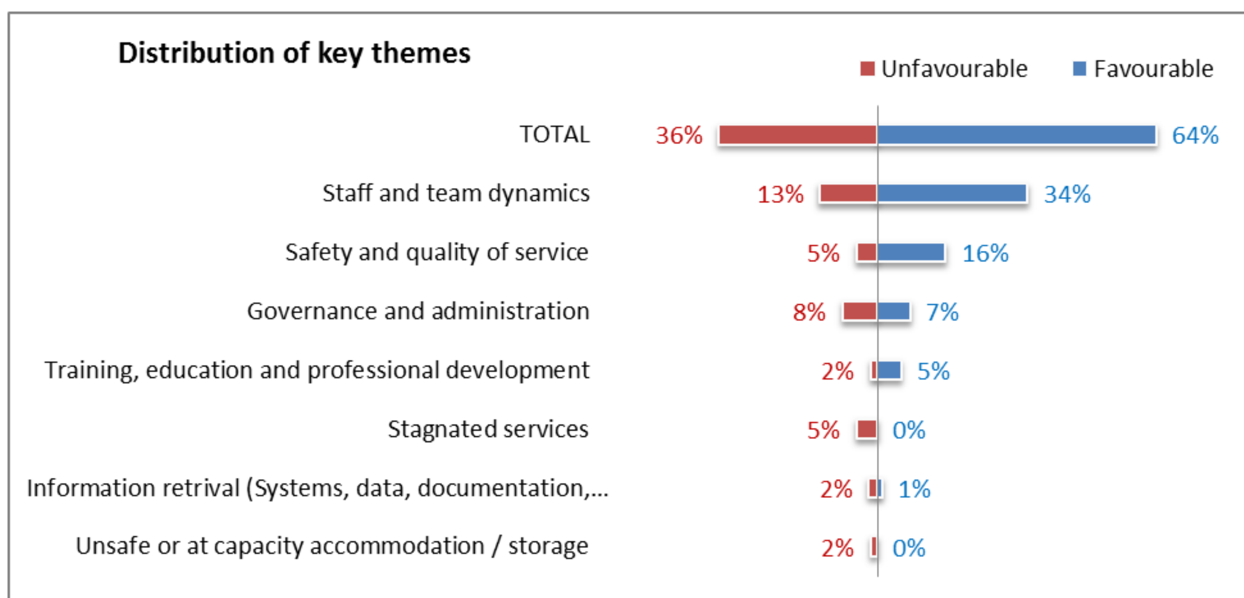

Figure 3: Distribution of key themes.

Results suggest existing quality and safety systems and processes are not fully utilised because of limited knowledge, awareness and understanding of capabilities and their relevance to optimal decision making and service delivery. Inadequate staffing (45% respondents), poor process documentation (11%) and unmet rural/remote needs (11%) were key concerns.

Free text comments indicated fragmentation of care and post-discharge support leading to risk of errors, poor documentation in medical records, insufficient staff to enable thorough assessment and treatment, increased patient complexity, and limited access to patient information held by external agencies in a timely manner were proposed as factors constraining high quality care. Although acute care is regarding as being

of a high standard, due to high activity levels and high demand for labour, follow-up work often becomes secondary, compromising safety across the entire spectrum of patient care.

For one or more questions, 10% to 34% respondents were unsure, suggesting organisational ignorance in various domains.

The following sections list responses and remedial strategies for specific questions which are categorised according to the two main categories used in the MtG position statement.

Standardisation and organisation of care

Responses and remedial strategies relating to specific standards

In the following sections, replies of respondents to questions relating to specific standards are detailed, together with potential remedial strategies as proposed by respondents and/or the survey authors.

Referral procedures and admission criteria for general medicine admissions

Established referral procedures and admission criteria for general physician care were said to exist by 42% of respondents, with 26% reporting in the negative, and 26% unsure.

Remedial strategy:

- SGMCN should compile a list of criteria to be used by emergency physicians that identify acutely presenting patients most suitable for referral and admission to general medicine services.

Acute medical assessment units

67% of respondents indicated a general physician led medical assessment unit had been established and was working well in their hospital. In the remainder, such units were deemed unnecessary or consideration was being given to establishing a unit in the near future.

Remedial strategies:

- As a key performance indicator, all hospitals >200 beds should establish such units
- SGMCN should update the 2013 MAPU guidelines

Substitutive care

Use of ambulatory care units, hospital in the home, outreach services (such as CARE-PACT) and other forms of substitutive care for inpatient admissions was used often (>10% of potential general medical admissions) according to 26% of respondents, sometimes (5% to 10% of admissions) by 31%, rarely (<5% of admissions) by 26%, and none at all by 5%. The main barriers to use of substitutive care were nominated as impaired access or delayed referrals (19% of respondents), unfavourable work culture and idiosyncratic clinician preferences (9%), lack of information and awareness about relevant services (8%), poor governance structures (6%), limited staff capacity (6%), unavailable services (6%), and lack of team engagement and direction (6%).

Remedial strategy:

- SGMCN should identify scenarios for which use of structured guidance should be considered obligatory in standardising best evidence practice, and generate/disseminate such guidance as necessary.

Emergency access target

Timely transfer of acute admissions from ED to wards with QEAT (Queensland Emergency Access Target) compliance rates of 75% to 100% were reported by 18% of respondents, rates of 60% to 74% were reported by 19%, rates of 30% to 59% by 16%, and rates <30% by 14%, with 32% of respondents being unsure. The most frequently nominated barriers were lack of inpatient beds (39% respondents), delays in

diagnosis, referrals and reviews (17%), bureaucratic patient flow processes (17%), inadequate staffing (6%), poor discharge planning (6%), and unfavourable workforce culture (6%).

Free text comments suggested uncertainty or disagreement as to the most appropriate receiving specialty unit (vs general medicine), lack of early involvement by general physicians in decision pathways, failure to recognise patients' reduced capacity to self-manage for various reasons (reduced health literacy, financial difficulties, poor social networks), difficulties with accessing community-based chronic disease management services and lack of engagement of all units with the QEAT process (it's all smoke and mirrors anyway') were other constraints on optimal QEAT performance.

Remedial strategy:

- SGMCN should formulate an agreed and achievable minimum QEAT target for all general medicine services, taking into account the diverse nature of general medicine caseloads. A first-phase figure of 40% would seem feasible, aiming for 60% as a second phase target.

Face to face consultant review of newly admitted patients within 24 hours

Just over a third (35%) of respondents indicated all (100%) new admissions were seen within 24 hours of ED presentation, with 20% indicating 75% to 99%, 8% indicating 0% to 24%, with more than a third of respondents (37%) being unsure of the relevant figure.

Remedial strategy:

- SGMCN should formulate an agreed and achievable minimum target for all general medicine services, taking into account the diverse nature of general medicine caseloads.
    - At least 75% of patients should be seen, on the proviso that review is mandated for complex or seriously ill patients, and the remaining 25% of patients of lower complexity and acuity discussed and a management plan formulated in consultation between the admitting registrar and the relevant consultant.

Use of validated clinical protocols, pathways and decision rules for common scenarios

Such guidance was employed for all relevant presentations according to 11% of respondents, often by 28%, sometimes by 29%, seldom by 8% and never by 2%. Almost a quarter (23%) were unsure.

The most frequently used pathways related to chest pain (28% respondents), stroke/TIA pathways (14%), deep vein thrombosis (9%), acute coronary syndromes (7%), cellulitis (5%) and diabetic ketoacidosis (5%). Less than 5% of respondents nominated regular use of pathways for community-acquired pneumonia, exacerbations of COPD, or sepsis. Use of state-wide guidelines, Therapeutic Guidelines and specialty society guidelines were nominated by only 1% of respondents.

Remedial strategy:

- SGMCN to develop and promulgate an easy to access web portal of evidence-based guidelines and resources for common scenarios, where downloads can be tracked as a measure of use. Where possible, this guidance should be incorporated into electronic medical record systems as computerised decision support tools.

Daily ward or board rounds or patient list debriefings

Twice daily rounds were reported by 10% of respondents, daily rounds by 56%, every second day by 6%, and twice weekly by 2%, with 26% respondents being unsure.

Remedial strategy:

- SGMCN should advocate for a policy of daily debriefing of patient lists by registrars with consultants (not necessarily face to face although this is preferred) and for a minimum of twice a week ward rounds of all patients.

Continuity of care from a single medical team throughout entire admission

A single medical team provided continuous care from ED presentation to follow-up outpatient care according to 46% of respondents, with 33% reporting the opposite, and 20% being unsure.

Remedial strategy:

- SGMCN should advocate for a policy of a single medical team providing continuous care (including stays in medical assessment and planning units) as far as possible.

Avoidance of over-investigation and over-treatment

Processes and tools aimed at minimising inappropriate over-investigation and over-treatment have not been considered according to 4% of respondents, considered but nothing in place as yet (19%), established but unsure of the extent to which they are used or complied with (23%), or established and reviewed or audited occasionally (15%) or regularly (9%). Almost a third of respondents (30%) were unsure.

Remedial strategies:

- SGMCN to develop, using the Choosing Wisely (CW) recommendations from appendix 2 of the MtG position statement, a training module on Leap Online for general medicine registrars and consultants to complete on an annual basis;

- Annual audits be conducted of the rates of compliance of practice with selected CW recommendations (based on volume, clinical impact, costs).

Comprehensive assessment of patient physical, mental and social functioning

Processes and tools aimed at ensuring comprehensive assessment of patients' functional capacities have not been considered by 4% of respondents, considered but nothing in place as yet (4%), established but unsure of the extent to which they are used or complied with (16%), or established and reviewed or audited occasionally (25%) or regularly (41%). A tenth of respondents were unsure.

Remedial strategy:

- SGMCN to develop and promulgate a standardised comprehensive assessment toolkit that couples assessment protocols with preventive action plans, and which explicitly shares care responsibilities between medical, nursing and allied health staff. Such a toolkit may also have application in perioperative medicine for patients referred for pre-operative assessment and optimisation.

Assessment of frailty

Processes and tools aimed at ensuring consistent assessment of frailty with the aim of targeting care that minimises deconditioning and encourages mobilisation have not been considered by 4% of respondents, considered but nothing in place as yet (6%), established but unsure of the extent to which they are used or complied with (20%), or established and reviewed or audited occasionally (20%) or regularly (34%). Just over a tenth of respondents (12%) were unsure.

Remedial strategies:

- SGMCN develop and promulgate an early frailty assessment tool as part of the comprehensive assessment toolkit (see above) coupled with requests to nurses, physiotherapists and volunteers to engage patients at risk in intensive mobilisation programs.

- SGMCN should maintain partnership with the QH Frailty Collaborative in evaluating effects of standardised assessment and intervention programs in collaborating hospitals, and promulgate those models of care which are shown to be most effective.

Assessment of risk for nosocomial complications and implementation of prophylactic care bundles

Processes and tools aimed at assessing patient risk of nosocomial complications (delirium, falls, pressure areas, etc) and implementing care bundles that reduce risk have not been considered by 1% of

respondents, considered but nothing in place as yet (3%), established but unsure of the extent to which they are used or complied with (16%), or established and reviewed or audited occasionally (23%) or regularly (44%). Just over a tenth of respondents (13%) were unsure.

Remedial strategy:

- SGMCN develop and promulgate risk assessment and prophylaxis regimens as part of the comprehensive assessment toolkit (see above).

Implementation of infection management and control practices

Processes and tools aimed at ensuring early recognition and management of sepsis, and processes for minimising nosocomial infections have been considered but nothing in place as yet (2%), established but unsure of the extent to which they are used or complied with (8%), or established and reviewed or audited occasionally (24%) or regularly (51%). Just over an eighth of respondents (16%) were unsure.

Remedial strategies:

- SGMCN should partner with the QH Sepsis Collaborative in developing and evaluating an early sepsis recognition and management pathway.

- SGMCN should mandate regular auditing of evidence-based infection control practices within all general medicine services.

Cohorting of patients at high risk of falls, delirium and disruptive behaviours

Policies of placing high risk patients in purpose-designed and staffed areas to care for these vulnerable patients have not been considered by 3% of respondents, considered but nothing in place as yet (8%), established but unsure of the extent to which they are used or complied with (15%), or established and reviewed or audited occasionally (28%) or regularly (30%). Just over an eighth of respondents (16%) were unsure.

Remedial strategy:

- SGMCN should advocate for cohorting policies and models of care (such as those adopted by PA Hospital) which reduce the risk of adverse events among these vulnerable patient populations.

Timely identification and intervention in clinically deteriorating patients

Processes aimed at ensuring early identification of deteriorating patients and appropriate activation of rapid response teams have not been considered by 2% of respondents, have been considered but nothing in place as yet (1%), established but unsure of the extent to which they are used or complied with (4%), or established and reviewed or audited occasionally (11%) or regularly (62%). Just under a fifth of respondents (19%) were unsure.

Remedial strategy:

- SGMCN should mandate implementation of rapid response systems (RRS) for deteriorating patients using validated criteria, while excluding patients with palliative intent or who have expressed no desire for resuscitation. Breaches in RRS activation and avoidable failures to rescue should be closely monitored by departmental quality and safety audits.

Early completion of acute resuscitation plans (ARPs)

Processes and tools aimed at ensuring early completion of ARPs within 48 hours of admission have not been considered by 1% of respondents, have been considered but nothing in place as yet (3%), established but unsure of the extent to which they are used or complied with (18%), or established and reviewed or audited occasionally (30%) or regularly (24%). Just under a quarter of respondents (24%) were unsure.

Remedial strategy:

- SGMCN should partner with MS HHS in developing a digital ARP form that can be stored and updated as required within electronic medical records (EMR), and the latter capable of generating reminders for patients whose ARP has not been completed within 48 hours of presentation.

Targeting advance care planning (ACP) to patients with limited life expectancy

Processes and tools aimed at ensuring early completion of advance care plans (ACPs) in eligible patients during hospital admissions have not been considered by 1% of respondents, have been considered but nothing in place as yet (9%), established but unsure of the extent to which they are used or complied with (19%), or established and reviewed or audited occasionally (26%) or regularly (18%). Just over a quarter of respondents (27%) were unsure.

Remedial strategies:

- All general medicine services should screen all patients for those with limited life expectancy using the Surprise Question;
- ACP facilitators should be employed to help identify eligible patients and initiate ACP discussions;
- SGMCN should encourage all services to adopt the MS Statement of Choices form for recording patient (or substitute decision maker) preferences and have completed forms registered with the QH ACP registry for posting on the ACP Tracker in the Viewer software for easy access by all treating health professionals;
- ACP initiation and completion rates prior to discharge should aim to be 80% and 50% of eligible patients respectively.

End of life care

Processes for ensuring early involvement of palliative care teams in care of the terminally ill have not been considered by 1% of respondents, have been considered but nothing in place as yet (8%), established but unsure of the extent to which they are used or complied with (18%), or established and reviewed or audited occasionally (23%) or regularly (29%). Just over a fifth of respondents (22%) were unsure.

Remedial strategy:

- SGMCN should partner with QH End of Life Reference Committee in promulgating workable end of life care pathways that emphasise the need for early referral to palliative care services for patients with difficult to control symptoms or who warrant admission to hospice.

Review of medication lists and deprescribing inappropriate polypharmacy

Processes for ensuring regular review of medication lists and deprescribing inappropriate medications in older patients with polypharmacy have not been considered by 3% of respondents, have been considered but nothing in place as yet (5%), established but unsure of the extent to which they are used or complied with (14%), or established and reviewed or audited occasionally (24%) or regularly (28%). Just over a quarter of respondents (26%) were unsure.

Remedial strategies:

- SGMCN should disseminate tools and resources that enable all general medicine services to screen all patients at risk of inappropriate polypharmacy (according to number of medications, age and other strong risk predictors) and apply the CEASE protocol;
- SGMCN should request all general medicine services to partner with their clinical pharmacy departments in implementing shared deprescribing routines at ward level.

Discharge planning and patient flow

Processes for ensuring commencement of discharge planning early in the admission and predicting date of discharge have been considered but nothing in place as yet (8%), established but unsure of the extent to which they are used or complied with (16%), or established and reviewed or audited occasionally (28%) or regularly (35%). Just over a tenth of respondents (13%) were unsure.

In light of the high prevalence of readmissions among general medicine services (between 12% and 18% within 30 days of discharge), respondents were asked for their perceptions as to the key factors predisposing to readmissions:

- Insufficient staff awareness of patient needs, communication with, and education of patients/family (19% of respondents);
- Lack of post-discharge service availability or accessibility (19% of respondents);
- Inadequate or inefficient discharge assessment/planning/processes (17% of respondents);
- Lack of auditing of discharge processes (15% of respondents);
- Barriers to discharge planning, co-ordination and prioritisation (8% of respondents);
- Lack of formal discharge planning guidelines or benchmarks (8% of respondents);
- Slow administrative decision-making processes (QCAT, Public Trustee, etc) (6% of respondents);
- Slow and difficult NDIS assessments (4% of respondents);
- Slow DSQ processes and decision-making (4% of respondents)

Remedial strategy:

- SGMCN should advocate for discharge planning to be well publicised in orientation sessions and manuals, for discharge planning status to be displayed on patient journey boards and for daily staff huddles to consider patient discharge readiness.

- SGMCN should partner with MS HHS and MN HHS in developing digital patient flow dashboards that identify time-stamped choke points or bottlenecks in the patient journey from ED presentation to discharge which warrant targeted remedial efforts at accelerating patient flow.

Stranded long-stay patients

Systems and processes for identifying and proactively managing patients with prolonged hospitals stays and barriers to discharge have not been considered by 1% of respondents, been considered but nothing in place as yet (3%), been established but unsure of the extent to which they are used or complied with (23%), or established and reviewed or audited occasionally (18%) or regularly (34%). A fifth of respondents (20%) were unsure.

In recognition of the fact that as many 1 in 3 patients occupying beds at any one time in general medicine services, and up to 8% of all occupied bed days are accounted for stranded patients who no longer need an acute hospital bed, respondents were asked what they perceived were the main barriers to discharging such patients:

- Availability of, or access to, suitable post-hospital care setting (29% of respondents);
- Specific accommodation or care service needs of patients (eg secure dementia units) (13% of respondents);
- Waits for administrative tribunal decisions (12% of respondents);
- Family disagreements as to final discharge destination (9% of respondents);

Remedial strategies:

- SGMCN should advocate for long stay patient executive committees to be established in every hospital to enable high-level recognition and analysis of long stays and escalation of discharge barriers;

- SGMCN to lobby QH Executive to replicate the MN HHS model of procuring additional, timely hearings of administrative tribunals (QCAT, Public Trustee, Office of the Public Guardian) across all HHSs;

- SGMCN should lobby all HHSs to design and build purpose-specific residential facilities for patients whose challenging behaviours deem them ineligible for transfer to private residential aged care facilities.

Peri-discharge programs of transitional care

Peri-discharge programs aimed at educating patients and care givers in disease self-management and ensuring smooth transition of care to community have not been considered by 3% of respondents, have been considered but nothing in place as yet (8%), established but unsure of the extent to which they are

used or complied with (13%), or established and reviewed or audited occasionally (32%) or regularly (28%). Under a fifth of respondents (16%) were unsure.

Remedial strategies:

- SGMCN should request all general medicine services to lobby for the appointment of peri-discharge nurse co-ordinators (or nurse navigators) who can provide required education and transitional care co-ordination;

- SGMCN should regularly review unplanned readmissions rates among general medicine services as an indicator of transitional care performance;

- SGMCN should endorse and promulgate effective outreach services to residential care facilities (RACFs) such as CARE-PACT (MSHHS) and RADAR (MNHHS) which aim to minimise unnecessary admissions and readmissions of RACF patients to hospital.

Timely discharge summaries and discharge communication

Processes for ensuring informative discharge summaries are circulated to all external care providers within 72 hours of discharge have not been considered by 1% of respondents, have been considered but nothing in place as yet (4%), established but unsure of the extent to which they are used or complied with (14%), or established and reviewed or audited occasionally (19%) or regularly (38%). A quarter of respondents (25%) were unsure.

Remedial strategies:

- SGMCN should lobby for discharge summary dashboards to be established within each general medicine service to monitor rates of summary completion within pre-specified time frames;

- SGMCN should request that all general medicine services adopt a policy of verbally communicating with general practitioners about any major changes in care, including in-patient deaths, and/or need for close monitoring or intervention post-discharge;

- SGMCN should partner with eHealth Queensland and the Queensland Digital Health Improvement Network to develop a fully functional electronic discharge summary within EMR.

Outpatient clinics

Several questions were asked to ascertain the proportion of respondents who stated specific strategies had been implemented to enhance efficiency and patient-centredness of outpatient clinics:

- Use of e-consultations and telehealth as substitutes for face to face consultations: 42% of respondents replied yes, 17% no, 41% were unsure.
- Use of structured templates to generate comprehensive outpatient letters: 43% of respondents replied yes, 25% no, 32% were unsure.
- Discharging patients back to GP after second or third clinic visit if clinically stable: 59% of respondents replied yes, 4% no, 37% were unsure.
- Strategies to offset missed appointments (eg overbooking, no reappointments of patients who missed previous appointments): 42% of respondents replied yes, 14% no, 44% were unsure
- Vetting of referral letters from GPs/other specialists and rejecting those lacking sufficient data: 49% respondents replied yes, 16% no, 34% were unsure
- Not issuing appointments to patients deemed to be high risk of non-attendance: 23% of respondents replied yes, 24% no, 54% were unsure.
- Use of telephone and SMS text reminders: 70% of respondents replied yes, 4% no, 26% were unsure.

Remedial strategy:

- SGMCN should advocate for greater use of telehealth and e-consultations in substitution for face to face consultations, and for clinic staff to routinely use telephone and SMS text reminders to reduce the risk of non-attendance.

Interdisciplinary communication, collaboration and composition

Consultant ward rounds

The MtG position statement recommended that consultant ward rounds be attended by a minimum of consultant, registrar, intern/RMO, nurse and clinical pharmacist. Only 16% of respondents achieved this, with 22% being unsure. Unpredictable timing of ward rounds, work pressures, competing nurse and pharmacist priorities and insufficient staff were considered to be principal barriers.

Remedial strategy:

- SGMCN should advocate for a policy of a minimum consultant ward round contingent that ensures good handover and interdisciplinary communication.

Multidisciplinary review meetings

Implementation of regular (at least twice weekly) multidisciplinary meetings to review patient status, exchange information, establish goals of care and progress discharge planning has not been considered by 4% of respondents, been established but unsure of the extent to which they are used or complied with (11%), or established and reviewed or audited occasionally (27%) or regularly (43%). Just over an eighth of respondents (15%) were unsure.

Remedial strategy:

- SGMCN should advocate for daily multidisciplinary huddles that consider, update and co-ordinate actions of all disciplines in each of the domains listed above.

Clinical handover

Implementation of structured clinical handover procedures has been considered but nothing in place as yet according to 4% of respondents, established but unsure of the extent to which they are used or complied with (13&), established and reviewed or audited occasionally (26%) or regularly (46%). Just over a tenth of respondents (11%) were unsure.

Remedial strategy:

- SGMCN should partner with QH Digital Healthcare Improvement Network in developing an EMR-enabled clinical handover tool using the ISBAR convention which automates extraction of key variables from EMR but which also allows annotations to be added as necessary;
- SGMCN should advocate for all general medicine services to have structured clinical handover procedures for medical, nursing and allied health staff which cover all shift handovers

Patients outlied in non-home wards

Procedures and processes for minimising the number of general medicine patients outlied in non-home wards have not been considered by 5% of respondents, been considered but nothing in place as yet (2%), been established but unsure of the extent to which they are used or complied with (15%), or established and reviewed or audited occasionally (15%) or regularly (29%). A third of respondents (33%) were unsure.

Remedial strategy:

- SGMCN should advocate for a senior nurse rover to be assigned to general medicine services whose task is to monitor progress of all outlied patients, liaise with nursing staff in non-home wards and attending medical teams to ensure appropriate care is being given, and work with bed management in returning these patients to home wards as quickly as possible.

Minimum staffing levels

Monitoring of staffing levels relative to clinical workloads and patient complexity is not performed according to 12% of respondents, is undertaken infrequently (once or twice a year) (14%), once every few months (20%) or frequently (at least monthly) (15%). More than a third of respondents (39%) were unsure.

Remedial strategies:

- SGMCN should formulate a position statement on desirable levels of staffing (medical, nursing and allied health) within general medicine services;
- SGMCN should advocate for divisional and unit executives to regularly monitor workloads relative to staffing levels in ensuring staffing shortages pose no threat to patient safety or risk of professional fatigue and burn-out;
- SGMCN should advocate for regular staff surveys that assess the degree to which staff experience stress and overwork indicative of inadequate staffing.
- SGMCN should partner with the QH General Physician Training Network in undertaking future workforce needs and refining and advancing training pathways, selection criteria and processes, training resources and trainee support in ensuring an ongoing pool of graduated general physicians adequate to meet future workforce requirements.

After-hours cover

Adequate staffing for providing appropriate patient care exists on evenings, week-ends and public holidays according to 59% of respondents while 6% responded in the negative; 34% were unsure.

Remedial strategy:

- In accordance with QH and ACQSHC policy statements, SGMCN should advocate for hospitals to fund appropriate after-hours cover.

Quality and safety improvement activities

Patient experience

Patient surveys that feedback their perceptions of the extent to which their needs were met during their hospital stay were never conducted according to 3% of respondents, seldom (once or twice a year) by 15%, once every few months by 27%, and at least monthly by 19%; 35% were unsure.

Multidisciplinary reviews of deaths, serious incidents, ‘near misses’

Multidisciplinary forums for reviewing all deaths and serious incidents were seldom (once or twice a year) undertaken according to 2% of respondents, once every few months by 12%, and at least monthly by 63%; 23% were unsure.

Peer discussion of challenging clinical cases

Regular departmental forums to discuss challenging or problematic cases, and which may impact on departmental policy-making, were never conducted according to 5% of respondents, seldom (once or twice a year) by 6%, once every few months by 11%, and at least monthly by 41%; 37% were unsure.

Feedback of performance indicators

Measurement and feedback of an agreed set of performance indicators were never undertaken according to 8% of respondents, seldom (once or twice a year) by 14%, once every few months by 18%, and at least monthly by 28%; 32% were unsure.

Unit executive meetings

Meetings at which senior medical, nursing and allied health personnel within a service discussed quality and safety issues were never conducted according to 6% of respondents, seldom (once or twice a year) by 9%, once every few months by 17%, and at least monthly by 43%; 25% were unsure.

When asked to offer comments about what factors promoted or inhibited quality and safety activities in their services, respondents identified the following themes:

- Enablers: Unit emphasis on patient feedback (29% respondents), standardised state wide performance reporting (18%), self-developed process improvement projects (6%), and quarterly meetings at executive level (6%).

- Barriers: Lack of multidisciplinary engagement (12%), tribal or siloed workforce culture (12%), absence of agreed performance indicators (6%) and absence of structured audit processes (6%).

Remedial strategies:

- SGMCN should develop an agreed set of performance indicators for general medicine services which should be measured and fed back to staff at least twice yearly;

- SGMCN should develop a suite of audit templates that facilitates data collection and analysis relevant to specific indicators at individual service level;

- SGMCN should continue to refine and disseminate performance indicators at individual service level based on centrally collected hospital data;

- SGMCN should advocate for every service to hold regular multidisciplinary forums for reviewing all in-hospital deaths, critical incidents and 'near misses.'

Development of specialised areas of expertise

When asked to nominate what areas of specialised expertise existed within their services, respondents gave the following responses:

- Acute stroke unit (60% said yes, 26% no, 14% unsure)
- Alcohol and drug addiction (51% yes, 40% no, 10% unsure)
- Clinical pharmacology (34% yes, 35% no, 30% unsure)
- Clinical toxicology (15% yes, 46% no, 39% unsure)
- Obstetric medicine (53% yes, 39% no, 9% unsure)
- Perioperative medicine (51% yes, 26% no, 24% unsure)

Other areas of expertise reported were non-invasive cardiology (13% of respondents), respiratory medicine (10%), geriatric medicine (10%), renal medicine (8%), rehabilitation (8%), palliative care (5%), eating disorders (5%), gastroenterology (5%) and chronic disease management (5%).

Perceived challenges in developing specialised areas of expertise comprised cost (15% of respondents), limited access to specialist advice in establishing service (13%), workforce shortages (10%), logistical difficulties (9%), resistance to change (8%), culture of workforce (8%), time constraints (7%), complexity in governance (7%), specialty not regarded as a need (7%), limited training and education capacity (6%) and idiosyncratic preferences of single or small groups of individuals (5%).

Remedial strategies:

- SGMCN should compile an inventory of specialised services that exist within general medicine services throughout the state, and which describes in detail the structure, activities and outcomes of those specialised services as a reference for use by other services which seek to emulate them.

- SGMCN should compile an inventory of care improvement initiatives related to changes in staffing, models of care or clinical processes that different services have implemented and evaluated as a reference for use by other services which seek to emulate them.

- SGMCN should compile a list of specialised services which are required within specific general medicine services on the basis of identified local/regional need, and lobby QH and HIU to support development of these services which, if established, would lessen long distance transfers of patients to tertiary centres which are already stretched for capacity.

- SGMCN should support dual training of general medicine advanced trainees with the aim of generating more general physicians who can take the lead in developing more specialised areas of expertise within general medicine services.

Interfaces with other networks

Although not included in the survey, consideration needs to be given to how SGMCN and general medicine services interface with other state-wide clinical networks. The Clinical Excellence Division of QH wants to see networks with shared interests and expertise collaborate more in undertaking bodies of work that target population health and service delivery problems that QH views as priority issues. The idea of clustering several networks into time-limited, action-directed collaboratives, and resourcing them to perform specific projects, is gaining traction. SGMCN should identify topics of relevance to general medicine services and networks with which it has common interfaces relating to care delivery, and seek to forge projects and business cases that confer collective benefit. In doing so, this does not prevent SGMCN from applying for one-off grants to undertake work specific to SGMCN.

Possible topics and collaboratives involving SGMCN could comprise:

- Acute care and emergency access: SGMCN and Emergency Medicine Strategic Advisory Group (EMSAG)
- Perioperative medicine: SGMCN, Anaesthesia & Perioperative Care (SWAPNET) and Surgical Advisory Committee
- Obstetric medicine: SGMCN and Maternity & Neonatal Network (SMNCN)
- Care of the older patient: SGMCN, Older Persons Network and Dementia Network
- Chronic disease management: SGMCN, Diabetic, Cardiology, Respiratory and Renal Networks
- Care of patients with dual medical/mental health problems: SGMCN, Mental Health Networks
- Digitisation of hospital practice: SGMCN and QH Digital Healthcare Improvement Network (DHIN)

Summary of findings

Overall the quality and safety of general medicine services was rated as high by more than two thirds of respondents. Most deficits (80%) were amenable to high effect remedies, 13% to medium effect remedies, and 7% to low effect remedies.

Major deficits nominated by 25% or more respondents, with barriers and categorisation of remedial effects (in parentheses) comprised:

1) Use of substitutive care: delays to referral/access, limited service availability, misaligned workforce culture, insufficient program awareness and information (Medium effect)

2) Timely transfer of admissions from ED: delays in assessments/referrals, bureaucratic patient flow processes, bed unavailability, insufficient staff buy-in (Low effect)

3) Use of clinical protocols: limited access; non-universal agreement; limited applicability to multi-morbid patients (High effect)

4) Comprehensive geriatric assessment: lack of easy to use tools, limited time/ training/ workforce culture (Medium effect)
5) Advance care planning and acute resuscitation plans: limited time/training, family disagreements, uncertain prognostications (Medium effect)
6) Delayed discharges: unavailable post-hospital care, unmet special needs, administrative delays, family disagreements (Low effect)
7) Quality and safety performance: inadequate funding, fragmented care, patient complexity, no agreed KPIs, limited benchmarking, inaccessible data, siloed work cultures, no auditing, little clinician engagement by administrators (Low effect)
8) Specialty area development: costs, inaccessible specialist advice, workforce shortages, logistical difficulties (Low effect)

Inadequate staffing (45% respondents), poor process documentation (11%) and unmet rural/remote needs (11%) were key concerns. For one or more questions, 10% to 34% respondents were unsure, suggesting organisational ignorance in various domains. However, respondents were consistent in nominating specific processes that were poorly optimised, with little apparent variation between different HHSs suggesting these problems are generic across the state.

While budgetary and resourcing limitations present challenges, optimising existing structures and processes is achievable in substantially advancing the quality, safety and performance of services in alignment with MtG recommended standards. Having accurate and readily available performance reporting will better position general medicine services to secure necessary resources to lower risk and maintain safety and quality at a sufficient standard. Such reporting, if targeted to all disciplines and managers, would also correct the ignorance of service performance, as indicated by the significant proportion of respondents who did not have sufficient knowledge to answer specific questions.

RECOMMENDATIONS

Recommendations for improving quality and safety of general medicine services arising from this report that SGMCN will need to own and advance are summarised below (table 1), with provisional timelines for their achievement.

Table 1. Recommendations for SGMCN to progress

Domain	Strategy	Timeline
Referral procedures and admission criteria for general medicine admissions	Compile a list of criteria to be used by emergency physicians that identify acutely presenting patients most suitable for referral and admission to general medicine services.	December 2018
Acute medical assessment units	Update the 2013 MAPU guidelines	December 2019
Substitutive care	Identify scenarios for which use of structured guidance should be considered obligatory in standardising best evidence practice, and generate/disseminate such guidance as necessary.	June 2019
Emergency access target	Formulate an agreed and achievable minimum QEAT target for general medicine services, taking into account the diverse nature of general medicine caseloads.	December 2018
Face to face consultant review of newly admitted patients within 24 hours	Formulate an agreed and achievable minimum target for all general medicine services, taking into account the diverse nature of general medicine caseloads.	December 2018
Use of validated clinical protocols, pathways and decision rules for common scenarios	Develop and promulgate an easy to access web portal of evidence-based guidelines and resources for common scenarios, where downloads can be tracked as a measure of use	December 2019
Avoidance of over-investigation and over-treatment	Develop, using the Choosing Wisely (CW) recommendations from appendix 2 of the MtG position statement, a mandatory training module on Leap Online for general medicine registrars and consultants to complete on an annual basis;	June 2019
Comprehensive assessment of patient physical, mental and social functioning	Develop and promulgate a standardised comprehensive assessment toolkit that combines assessment protocols with preventive action plans, and which explicitly shares care responsibilities between medical, nursing and allied health staff.	December 2019
Assessment of frailty	Develop and promulgate an early frailty assessment tool as part of the comprehensive assessment toolkit (see above) coupled with requests to nurses, physiotherapists and volunteers to engage patients at risk in intensive mobilisation programs. Maintain partnership with the QH Frailty Collaborative in evaluating effects of standardised assessment and intervention programs in collaborative hospitals, and promulgate those models of care which are most effective.	December 2019 Ongoing
Assessment of risk for nosocomial complications and implementation of	Develop and promulgate risk assessment and prophylaxis regimens as part of the comprehensive assessment toolkit (see above).	June 2019

prophylactic care bundles		
Implementation of infection management and control practices	Partner with the QH Sepsis Collaborative in developing and evaluating an early sepsis recognition and management pathway.	June 2019
Early completion of acute resuscitation plans (ARPs)	Partner with MS HHS in developing a digital ARP form that can be stored and updated as required within electronic medical records (EMR), and the latter capable of generating reminders for patients whose ARP has not been completed within 48 hours of presentation.	June 2019
End of life care	Partner with QH End of Life Reference Committee in promulgating workable end of life care pathways that emphasise the need for early referral to palliative care services for patients with difficult to control symptoms or who require admission to hospice.	Ongoing
Review of medication lists and deprescribing inappropriate polypharmacy	Disseminate tools and resources that enable all general medicine services to screen all patients at risk of inappropriate polypharmacy (according to number of medications, age and other strong risk predictors) and apply the CEASE protocol	June 2019
Discharge planning and patient flow	Partner with MS and MN HHS in developing digital patient flow dashboards that identify time-stamped choke points or bottlenecks in the patient journey from ED presentation to discharge which warrant targeted remedial efforts at accelerating patient flow.	Ongoing
Stranded long-stay patients	Lobby QH Executive to replicate the MN HHS model of procuring additional, timely hearings of administrative tribunals (QCAT, Public Trustee, Office of the Public Guardian) across all HHSs; Lobby all HHSs to design and build purpose-specific residential facilities for patients whose challenging behaviours deem them ineligible for transfer to residential aged care facilities.	Ongoing Ongoing
Peri-discharge programs of transitional care	Regularly review unplanned readmissions rates among general medicine services as an indicator of transitional care performance; Endorse and promulgate effective outreach services to residential care facilities (RACFs) such as CARE-PACT (MSHHS) and RADAR (MNHHS) which aim to minimise unnecessary admissions and readmissions of RACF patients to hospital.	Ongoing Ongoing
Timely discharge summaries and discharge communication	Lobby for discharge summary dashboards to be established within each general medicine service to monitor rates of summary completion within pre-specified time frames; Partner with eHealth Queensland and the Queensland Digital Health Improvement Network to develop a fully functional electronic discharge summary within EMR.	Ongoing Ongoing
Clinical handover	Partner with QH Digital Healthcare Improvement Network in developing an EMR-enabled clinical handover tool using the ISBAR convention which automates extraction of key variables from EMR but which also allows annotations to be added as necessary	December 2019
Minimum staffing levels	Formulate a position statement on desirable levels of staffing	December

	(medical, nursing and allied health) within general medicine services	2018
Quality and safety improvement activities	Develop an agreed set of performance indicators for general medicine services which should be measured and fed back to staff at least twice yearly; Develop a suite of audit templates that facilitates data collection and analysis relevant to specific indicators at individual service level; Refine and disseminate performance indicators at individual service level based on centrally collected hospital data	December 2019 December 2019 Ongoing
Development of specialised areas of expertise	Compile an inventory of specialised services that exist within general medicine services throughout the state, and which describes in detail the structure, activities and outcomes of those specialised services as a reference for use by other services which seek to emulate them. Compile an inventory of care improvement initiatives related to changes in staffing, models of care or clinical processes that different services have implemented and evaluated as a reference for use by other services which seek to emulate them. Compile a list of specialised services which are required within specific general medicine services on the basis of identified local/regional need, and lobby QH and HIU to support development of these services which, if established, would lessen long distance transfers of patients to tertiary centres which are already stretched for capacity. Partner with the QH General Physician Training Network in undertaking future workforce needs and refining and advancing training pathways, selection criteria and processes, training resources and trainee support in ensuring an ongoing pool of graduated general physicians adequate to meet future workforce requirements.	December 2019 June 2019 June 2019 Ongoing
Interfaces with other networks	Partner with other networks in progressing bodies of work targeting priority population health and service delivery issues: acute care and emergency access; perioperative medicine; obstetric medicine; care of the older patient; chronic disease management; care of patients with dual medical/mental health problems; digitisation of hospital practice Examples: • Partner with HITEC, DHIN, eHeath Queensland in developing early warning of deteriorating patient tool, patient flow tools (wfW and WoWs), mHealth Apps evaluation checklist • Partner with SWAPNET in developing perioperative care guidelines • Partner with QEDSAP in revising ED-inpatient wards	Ongoing

	interface flow pathways • Partner with QH RACF pathways group, OPHN and CARE-PACT in finalising and implementing RACF care pathways Partner with other non-network organisations and research groups on specific projects of mutual interest Examples: • Wound Care Australia in regards to advancing care of patients with chronic wounds • PARRS group in developing standardised pre-operative assessment and fitness optimisation pathway for older patients undergoing elective surgery	Ongoing

Performance reporting

In regards to performance reporting, each category of recommendations can be graded according to availability of data as follows:

- High effect ('Quick Wins') – Greatest potential for improved performance that can be implemented with minimal material or resourcing barriers. Data theoretically available and accessible (subject to approvals);
- Medium effect ('Developing Risks') – Potential for improved improvement subject to realistic assessment of material / resourcing barriers. Data may or may not be readily available;
- Low effect ('High Risk Challenges') – Requires cross disciplinary healthcare sponsorship, endorsement of existing or new governance and processes to initiate and maintain ongoing resourcing needs. Availability of data unknown.

Performance reporting modules that may be feasible are listed in table 2 according to remedial strategy effects across a number of different domains. A focus on 'Quick Wins' strategies should be emphasized due to the natural advantage of having no true material or resourcing barriers.

Table 2: Recommendations and performance reporting modules

Performance Reporting Modules *(Items include all 45 MtG recommendations)*	**Item Count**	**Item Effect**			**Total**
		High (Quick Wins)	**Medium** (Developing Risks)	**Low** (High Risk Challenges)	
Total	**45**	**80%**	**13%**	**7%**	**100%**
Safety and quality controls	**11**	20%	4%	0%	24%
Auditing and governance	**9**	16%	2%	2%	20%
Collaboration and quality improvement	**10**	13%	4%	4%	22%
Discharge planning	**6**	13%	0%	0%	13%
Patient consultation and accommodation	**4**	7%	2%	0%	9%
Mandatory training	**2**	4%	0%	0%	4%
Workforce economics	**2**	4%	0%	0%	4%
Feedback analysis	**1**	2%	0%	0%	2%

Where applicable, suggestions for performance measures that can be reported is supplied (Appendix 4). Establishment of a high level, strategic dashboard would be achievable for use in general medicine services under *Alt_7 Hierarchy* data structure of the Decision Support System (see Appendix 5).

Access to HHS-wide data is required to determine how successful existing data can be utilised to monitor service-level performance, with a view to scaling it up across all QH facilities as needed to enable benchmarking activities.

Decision Support System (DSS) is an existing enterprise resource system where modules of data are readily available (subject to approval). Requests can be made to develop customised data sets meeting the needs of specific MtG performance indicators. Such indicators may be developed and implemented using existing technologies and embedded into the SGMCN website to provide routine MtG dashboard reports. Ideally data should have ‘drill-down’ capability to provide detailed, specific information as necessary (e.g. name or expense transaction data).

CONCLUSIONS

While budgetary and resourcing limitations present challenges, optimising the workforce and processes of care of general medicine services throughout Queensland is achievable in advancing quality, safety and performance reporting practices outlined in this report. Having a capable and sustainable performance reporting framework readily available will better position general medicine services to secure necessary resources to manage risk and maintain safety and quality at a standard commensurate with the recommendations contained in the MtG position statement.

This report provides insights into existing perceptions of the safety and quality of general medicine services in Qld public hospitals and offers potential solutions to address shortfalls. This report should be used as a resource to guide future quality and safety improvement initiatives and underpin work plans of the SGMCN over the coming 2 years.

APPENDIX 1 – Mind the Gaps project position statement

APPENDIX 2 – Department of Health risk analysis matrix

APPENDIX 3 – Survey results

APPENDIX 4 – Performance reporting recommendations

APPENDIX 5 – Example of performance reporting dashboard