Hamad Medical Corporation Ambulance & Mobile Healthcare Service

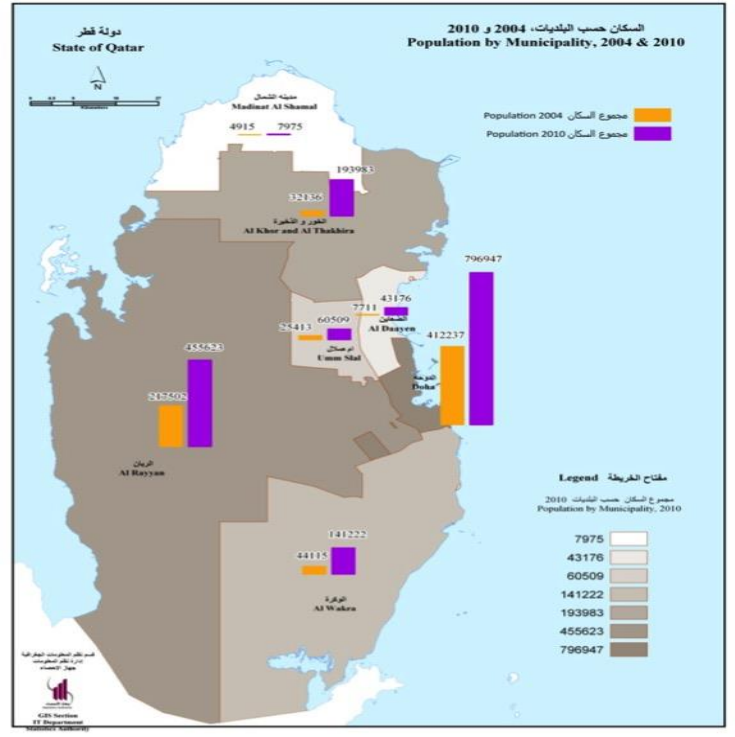
Mobile Healthcare embraces the **vision** of the HMC family

"We aim to deliver the **safest, most effective and most compassionate** care to each and every one of our patients every day."

Origins of MHS

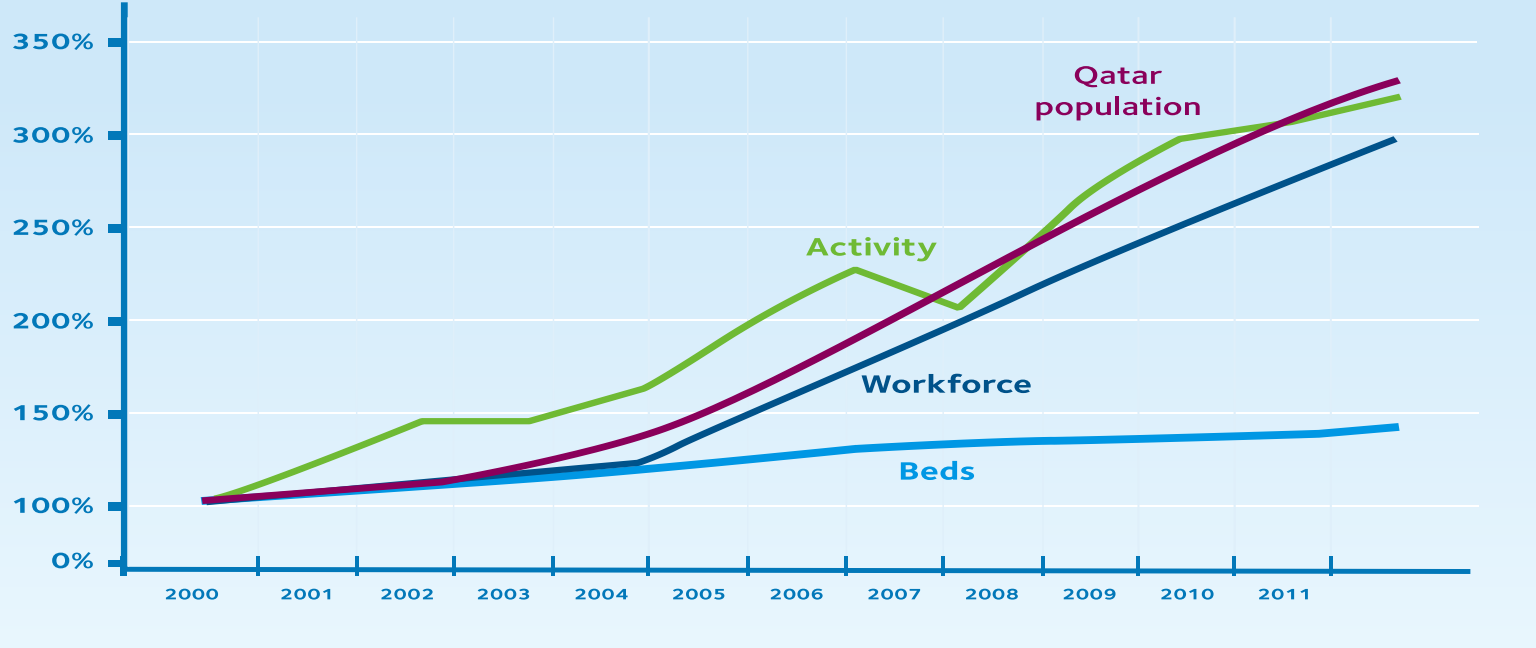
- H.E. Dr Hanan Mohamed Al Kuwari's concept
- Increasing healthcare demand
- Rising population
- Various models of providing care in home
  - Community Nursing
  - Community Paramedics
  - SOS Medecins France..1000GPs, 4Million Calls 2.5 Million Home Visits
  - Out of Hours Services - GPs

Population growth



Fast growing demand

We have increased our workforce and activity in response to very rapid population growth, but we are constrained by the supply of hospital beds

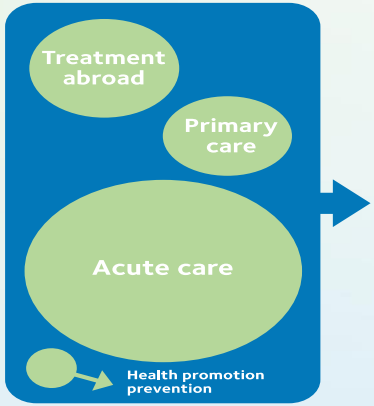


Redesigning models to transitional care

We need to play our part in redesigning the model of care nationally to be more holistic and community based, and less episodic and acute

Future model of care

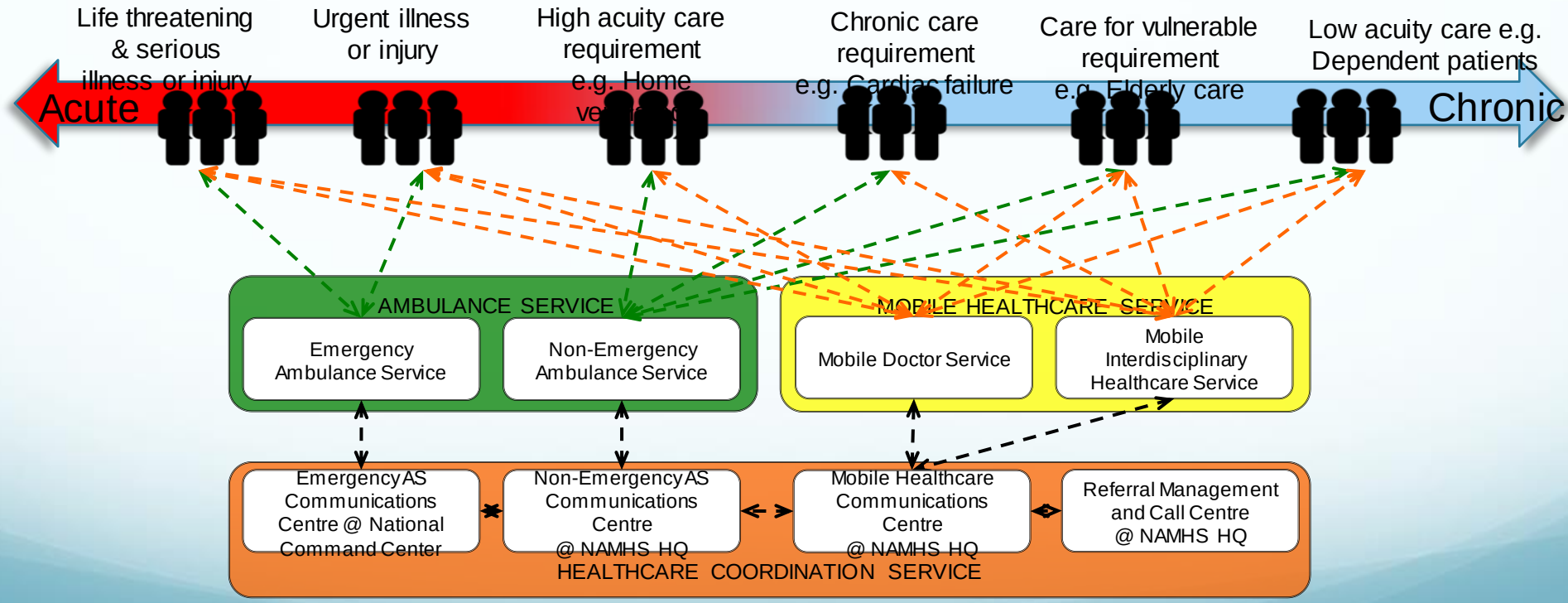
Current model of care



Future model of care

A recent report found that 30% of our patients could be cared for in lower acuity settings if they had been available

HMC Ambulance & Mobile Healthcare Service



Mobile Healthcare Service

STAFF

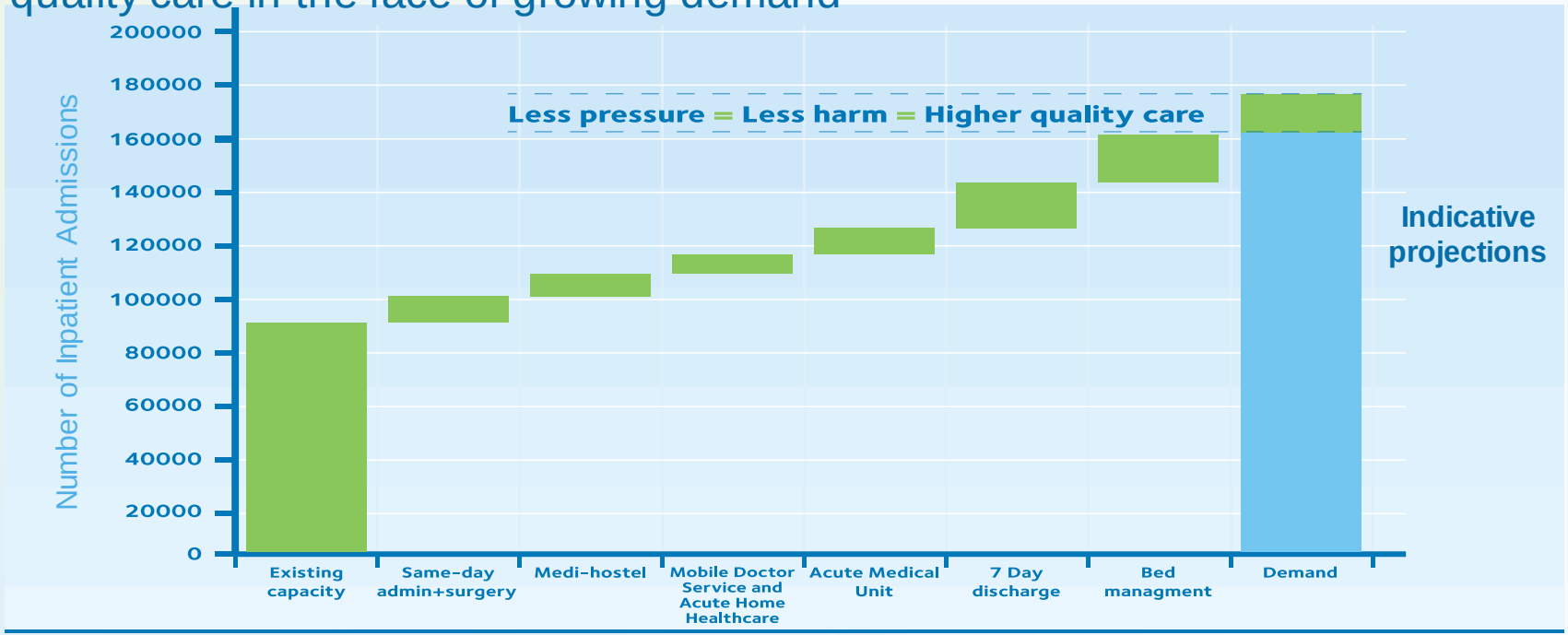
- Total of 200 staff including
- Ambulance Paramedics
- Nurses
- Civilian Control Room Staff
- Doctors
  - 51 Consultants in Family Medicine with range of 15 – 20 years experience
- Operations Managers
- Admin

FUNCTIONS

- 24/7 Control Room
- 15 Liveried Vehicles
- 40 bedded Medi-Hostel
- Early Supported Discharge Program
- Emergency Admission Avoidance

Bridging the gap

With more efficient working practices we can meet our vision for high quality care in the face of growing demand

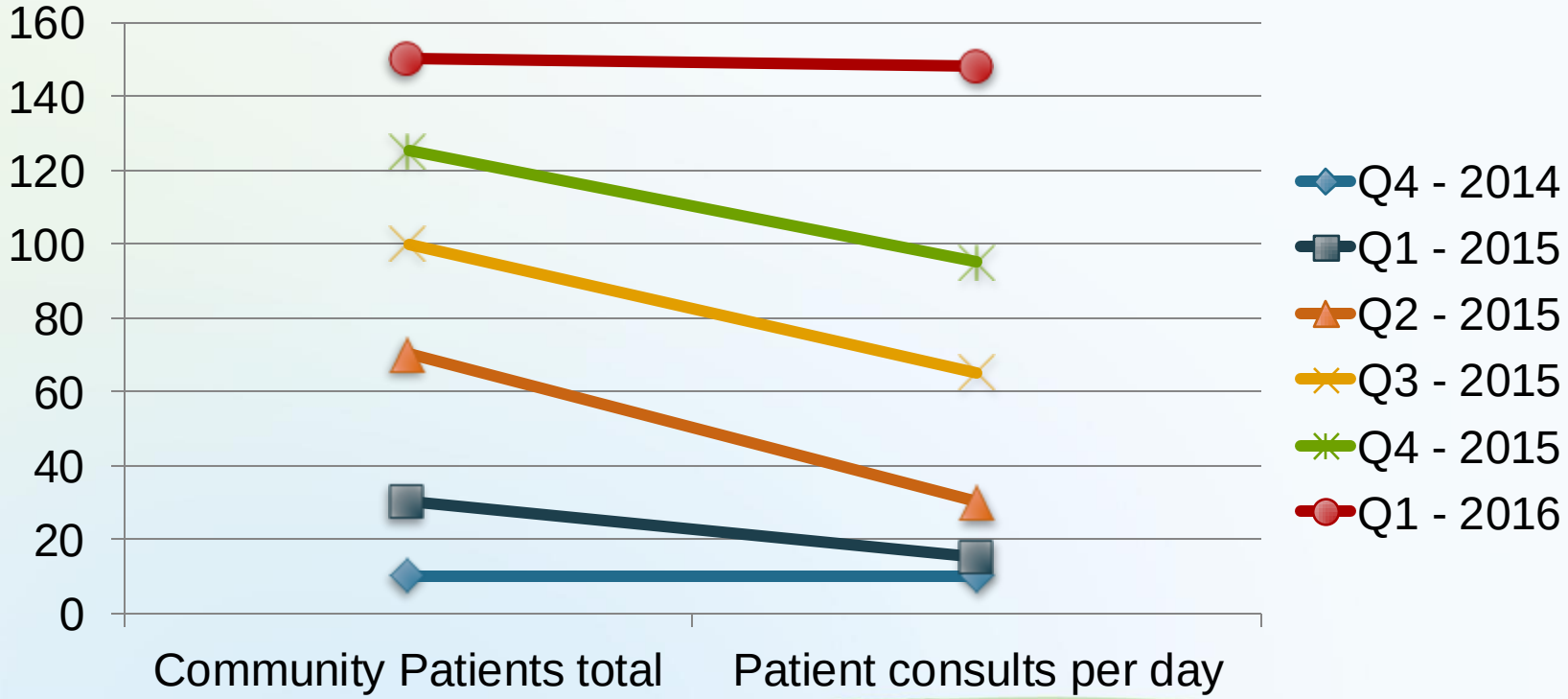


Improving clinical quality and efficiency

Clinical leaders across HMC were tasked to identify improvements in practice that can make HMC more efficient and provide higher quality care, for example:

1. Seven day discharge
2. HMC-wide, real-time bed management system
3. Acute Medical Unit Model
4. Same day admission for overnight surgery and day case surgery
5. Acute home healthcare service
6. Mobile doctor service
7. Medi-hostel

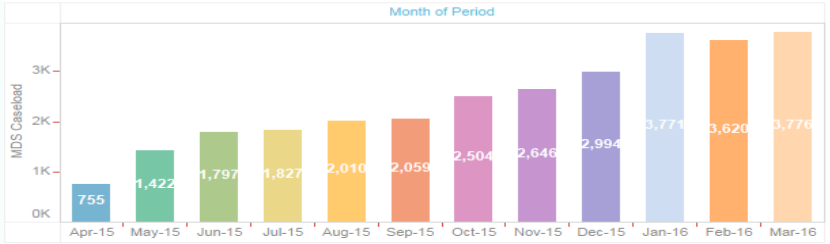
6-quarters of activity



Performance dashboard

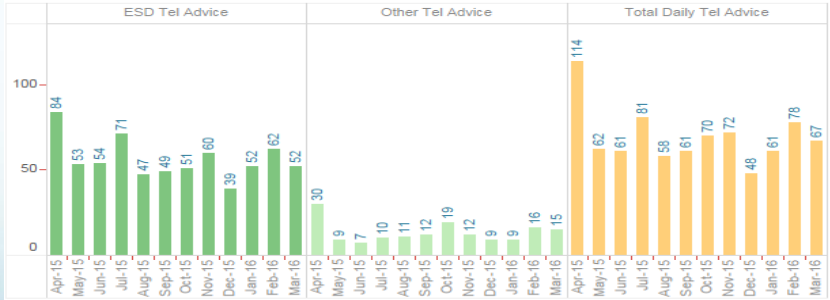
Mobile Healthcare Service Corporate Dashboard April 15 - March 16

Monthly Cumulative of Daily Caseload *(Mobile Doctors only)*



* Caseload Total number of patients under the care of **Mobile Doctor Service** (MDS) on each day - caseload does not include patient who are under the care of other services (e.g. Home Healthcare or Muaither residents) who MDS may visit on request.

Telephone Advice

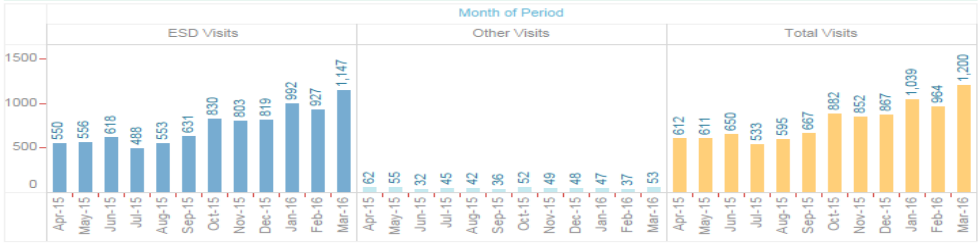


* ESD Tel Advice Number of telephone advice calls (Clinical Advice calls completed by an MDS Consultant) completed during each 24 hour period (6am-6am) for patients (and/or their relatives or carer) on the MDS Caseload. This number does not include telephone advice calls to other providers (e.g. home healthcare or Muaither)

* Other Tel Advice Number of telephone advice calls (Clinical Advice calls completed by an MDS Consultant) completed during each 24 hour period (6am-6am) for Home Healthcare or Muaither Compound patients (usually with their care provider). This number does not include telephone advice calls for patients on the MDS caseload

* Total Daily Tel Visits Sum total of ESD telephone advice calls & other telephone advice calls completed in a 24 hour period (6am-6pm).

Patient Visits

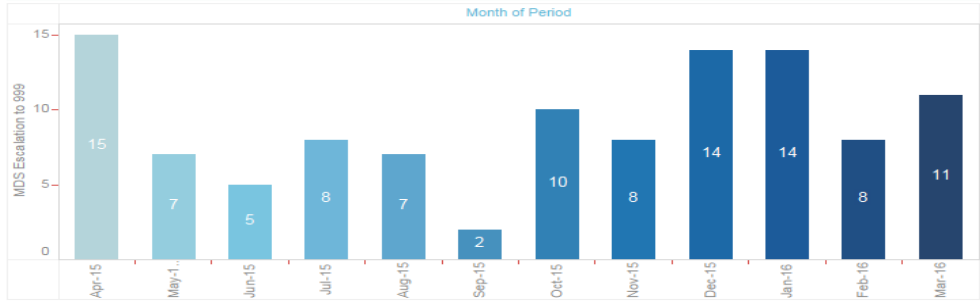


* Early Supported Discharge(ESD) Number of patient visits (consultations) completed during each 24 hour period (6am-6am) to patients on the MDS Caseload. This number does not include visits requested by other providers (e.g. home healthcare or Muaither).

* Other Visits Number of patient visits (consultations) completed during each 24 hour period (6am-6am) to patients under the care of other HMC healthcare providers. This currently includes Home Healthcare Service patients and Muaither Compound residents. MDS complete visits to these patients on the request of the provider.

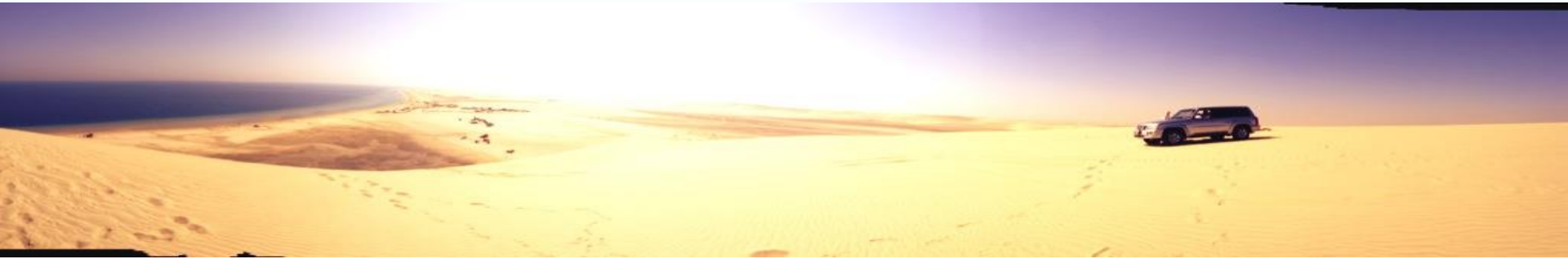
* Total Daily Visits Sum total of ESD visit & other visits completed in a 24 hour period (6am-6pm).

MDS Escalation to 999



* MDS Escalation to 999
Number of patients during a 24 hour period (6am-6pm) who have required a 999 ambulance response following an MDS consultation.

Mobile Healthcare



- Challenges
- Our team
- Planned work – Early Supportive Discharge
- Unplanned work – Emergency Admission Avoidance
- Our Improvement projects
- Our Future

Challenges

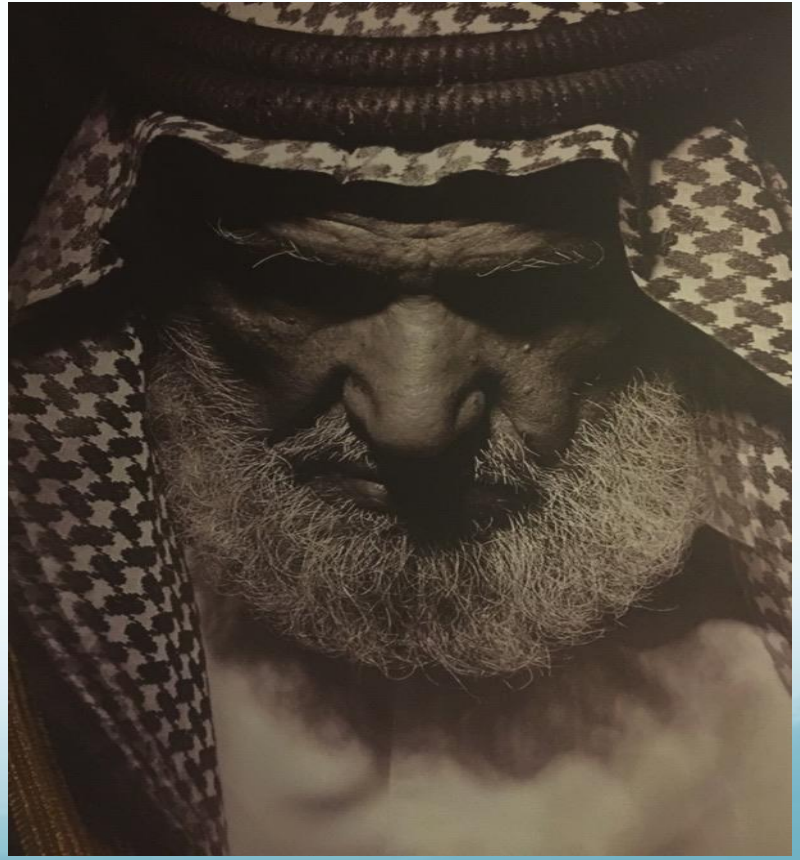

LOCATION
LOCATION
LOCATION


Hindi
Dutch
English
Turkish
Bengali
Polish
Norwegian
German
Russian
Portugese
Japanese
Arabic
Spanish
Swedish
Mandarin
Vietnamese
Italian
Hindi
language
Persian
Greek
Russian
Vietnamese
Korean
Thai
Portugese
Thai
French
Spanish
Romanian
Persian
Cantonese
Czech
Ukrainian
Polish
Norwegian
Hungarian
Greek
Cantonese
Bulgarian
Mandarin
German
English
Ukrainian

Why use Family Medicine Doctors?

Because it is the patient not his illness that defines our craft

- Communication skills
- Dealing with Multi-morbidities
- Holistic care – patients matter not diseases
- Respect choice always
- Deal with clinical risk as routine and discuss choices with patients in ways they understand
- Philosophical not nihilistic – life to years not years to life
- We respect who the expert is here – him
- We care – he knows it, and so does his family
- Natural team players

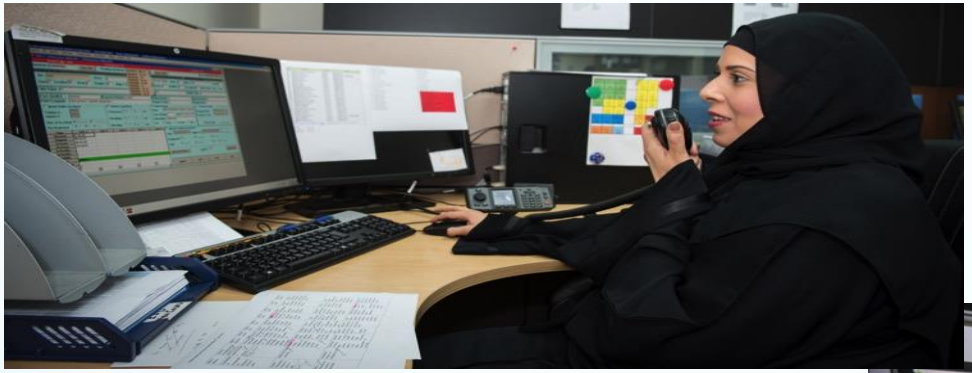


Our Paramedics and Nurses

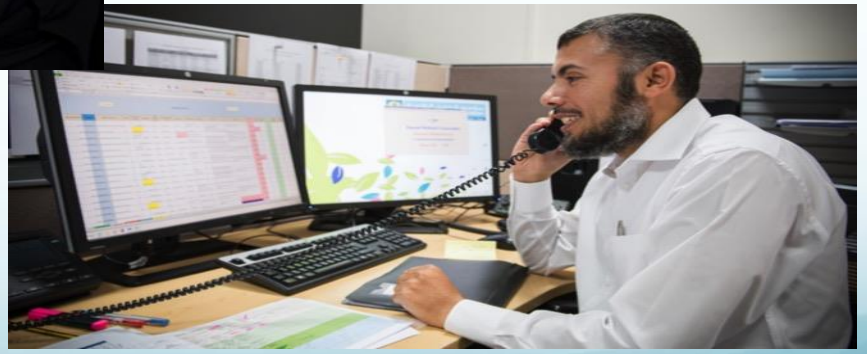
Complementary skills

- Empathy/Kindness
- Advanced wound management
- Cannulation
- Resuscitation
- Knowledge of EMS service
- Communication (Languages and styles)
- Acute Medicine

24/7 Control Room



Dispatcher



Consultant Grade Doctor

Hamad General Hospital

- Early Supportive Discharge - all wards
- Daily ED presence
- Acute Medical Assessment Unit
- Short Stay Unit

Our first patient

Al Wakra Hospital

- Early Supportive Discharge
- Day Case Surgery
- Drain surveillance
- Burns dressings
- Post-natal pathways

Heart Hospital

Post Cardiac Stent

- Drug titration
- Medicines compliance
- Education
- Secondary prevention
- Complications

Heart Failure

- Symptoms review
- Medication adjustments
- Review of co-morbidities
- Other medical issues
- Confidence/Rehabilatation

Home Visiting

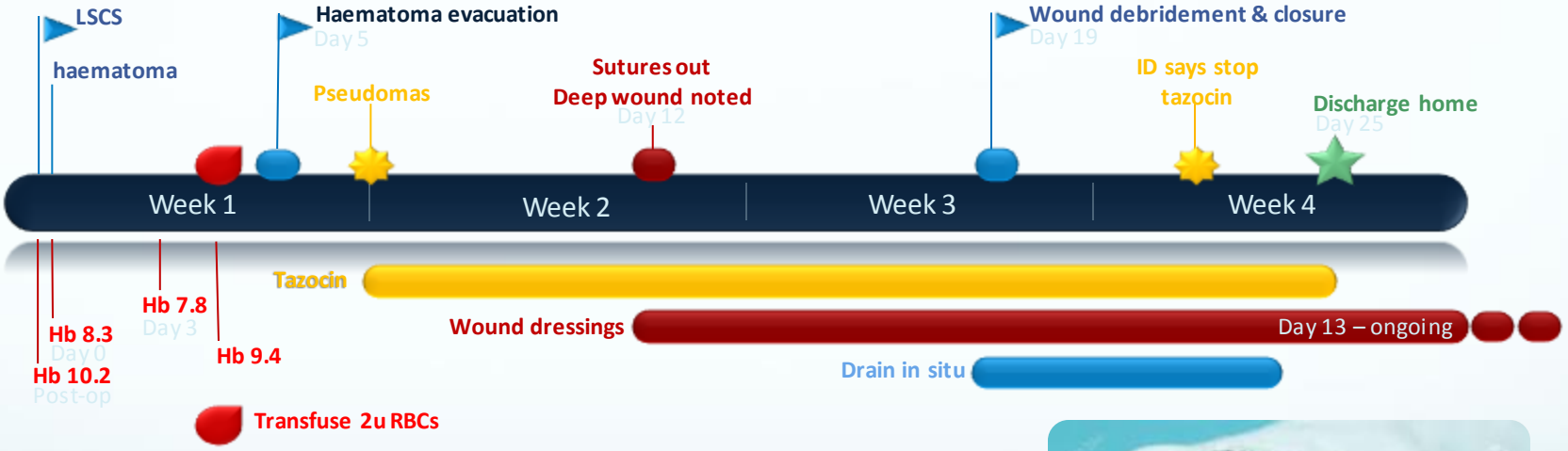
- Bespoke management plans
- IV Antibiotics
- Wound dressings
- Patient and family education
- Blood test follow up
- Long term conditions management
- Transition to Self care
- Transition to Primary care

NCCCR

- Supporting palliative care patients in the community
- Respite care in Medihostel

Women’s Hospital

Supported Discharge



Early Supported Discharge after Caesarean Section

A Quality Improvement project in the Women's Hospital

Team: Women's Hospital Postnatal Unit 2W: Head Nurse Jessy George.
Mobile Healthcare Service Consultants: L Anderson, A El Hawari, V Quinones.

مستشفى النساء
Women's Hospital
عضو في مؤسسة حمد الطبية
A Member of Hamad Medical Corporation

خدمة الإسعاف
Ambulance Service
Hamad
MOBILE HEALTHCARE SERVICE

Background

Early Supported Discharge (ESD) refers to a program which allows patients in acute care to receive some or all of their care outside the hospital. In the context of maternal health, ESD has been associated with decreased rates of postnatal depression while maintaining clinical outcomes *(reference 1)*. Hamad Medical Corporation's ESD program is run by the Mobile Healthcare Service (MHS), a branch of the Ambulance Service Group. Since the program started in late 2014, most of the patients who have participated in ESD were referred from medical and surgical inpatient units, however we think it is likely that postnatal women will also benefit from access ESD.

How can ESD benefit mothers and families?

Consider the case of patient "A" (name changed) who was referred to MHS after nearly 4 weeks in hospital. She suffered complications following lower segment Caesarean section (LSCS) delivery. During her hospital stay she received complex wound care, intravenous antibiotics, and ultimately required 3 operative procedures. Patient A certainly needed access to acute care, however, it is likely that some aspects of her care could have been provided outside the hospital in an ESD program.

One way to screen for those opportunities is to use a Patient Acuity Score (PAS). Patient acuity scores are designed to help Nurse leaders plan for staffing needs by estimating the degree of care needed for inpatients in their units *(reference 2)*.

Lower PAS = Lower acute care needs = Potential for ESD.

Patient Acuity Score (PAS) example:

	0	1	2
Eating	no restriction	Limited diet; swallowing difficulty	Full assist
Walking	no restriction	Mobilising with assist	Full transfer assist
Dressing	no restriction	needs assist	-
Bathing	no restriction	minor assist	Needs equipment or full assist
Toileting	no restriction	minor assist	Full assist
Other care	routine	- Minor procedure (e.g. bloods, USS, simple wound care) - Minor bleeding - Nausea - Hyper or hypotension requiring monitoring	- Vomiting - Complex wound care - Complex IV administration (e.g. blood transfusion)
perioperative	any other	pre-operative or post-op day 0	-

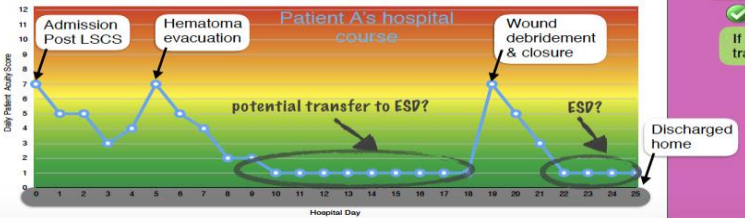
Legal Pad NOTEPAD 75 Sheets

How to calculate the PAS:

- Find the column which best describes the patient's care needs for each activity.
- The number at the top of the column is the acuity score for that activity.
- Add up the scores for each activity to reveal the total acuity score.
- A low PAS suggests an opportunity to transfer the patient's care to ESD.

Retrospectively applying a daily PAS to patient A's hospital stay reveals that the acuity of her care needs varied over time. There were periods of several days where her acuity score was consistently low.

She is likely to have been a good candidate for ESD during those times and would have transitioned back to inpatient care following her procedures. This patient and her family agreed to discharge when she was referred to MHS on Day 25.



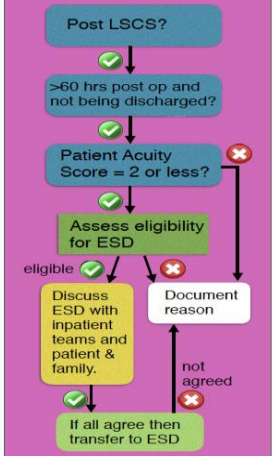
The Project

Aims:

The primary aim of this project is to reduce the percentage of women from Postnatal Unit 2W who experience a prolonged (>72 hours) low-acuity hospital stay by 40% by the end of 2016. If this can be achieved, we believe it will improve quality at the WH by promoting patient-centered care, reducing nosocomial infection risk, and decreasing waiting times for inpatient beds.

Secondary aims are to understand the reasons why women post-LSCS delivery may experience prolonged low-acuity stays, and to see if patient acuity scores are a useful tool in our setting.

Proposed QI algorithm



Project Steps (PDSA Cycle 1):

1. Review the 2W Postnatal Unit inpatient list twice weekly for 2-4 weeks to determine a baseline for how many post-LSCS patients are present, how many have stayed beyond 72 hours (preliminary estimate is 1-3 patients per week), and what the patients' acuity scores are.
2. After a baseline has been established, implement the proposed QI algorithm daily to identify patients at risk for prolonged low acuity hospital stay (should take no more than 20 minutes). For patients with PAS =2 or less, use MHS admission sheet to assess eligibility for ESD and proceed as indicated.
3. Record numbers of patients screened, PASs, results of ESD eligibility assessments. Use run charts to track monthly data. If patient numbers are much higher or lower than expected after the first month, review the protocol.
4. Analyze the data after 3 months to see what further quality improvement steps could be implemented in the next PDSA cycle.

Anticipated Outcomes:

- Acute care needs which could be addressed in ESD program: IV antibiotics, wound care, blood tests, blood pressure checks, glucose monitoring, etc.
- Initially, we expect that 15-20% of eligible patients will be transferred to ESD. We think the percentage will increase over the year as patients and staff become more familiar with ESD.
- We expect to encounter barriers to transfer such as infection control issues (e.g. MRSA, H1N1), patient/family refusal, operational capacity issues from MHS side, delays in obtaining specialist advice (e.g. unusual wound care or antibiotics needs).
- We will monitor for unintended consequences from transferring these patients out of the acute setting. Possible examples are increased patient turnover negatively impacting Unit nursing resources, or increased emergency presentations among transferred patients.

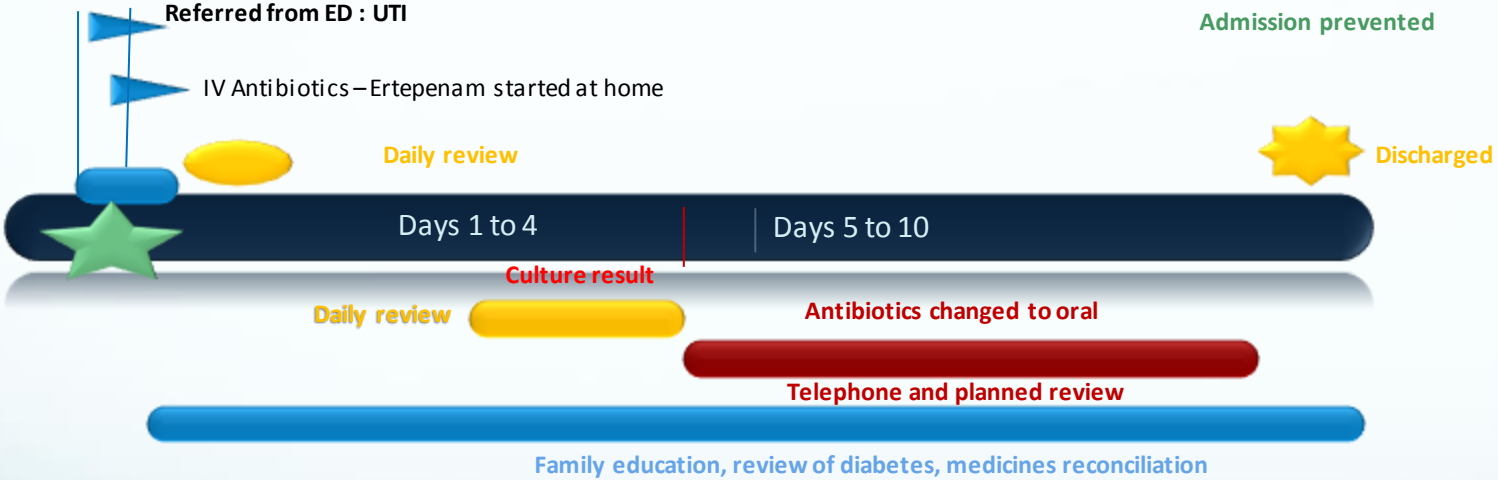
References:
1. Brown S, Small R, Argus B, Davis PG, Krastev A (2002). Early postnatal discharge from hospital for healthy mothers and term infants. Cochrane Database of Systematic Reviews, Issue 3. Art. No.:CD002958. DOI: 10.1002/14651858.CD002958.
2. Harper K and McCully C. Acuity systems dialogue and patient classification system essentials (2007). Nursing Administration Quarterly. 31(4): 284-299.

Bayt Al Diyafah

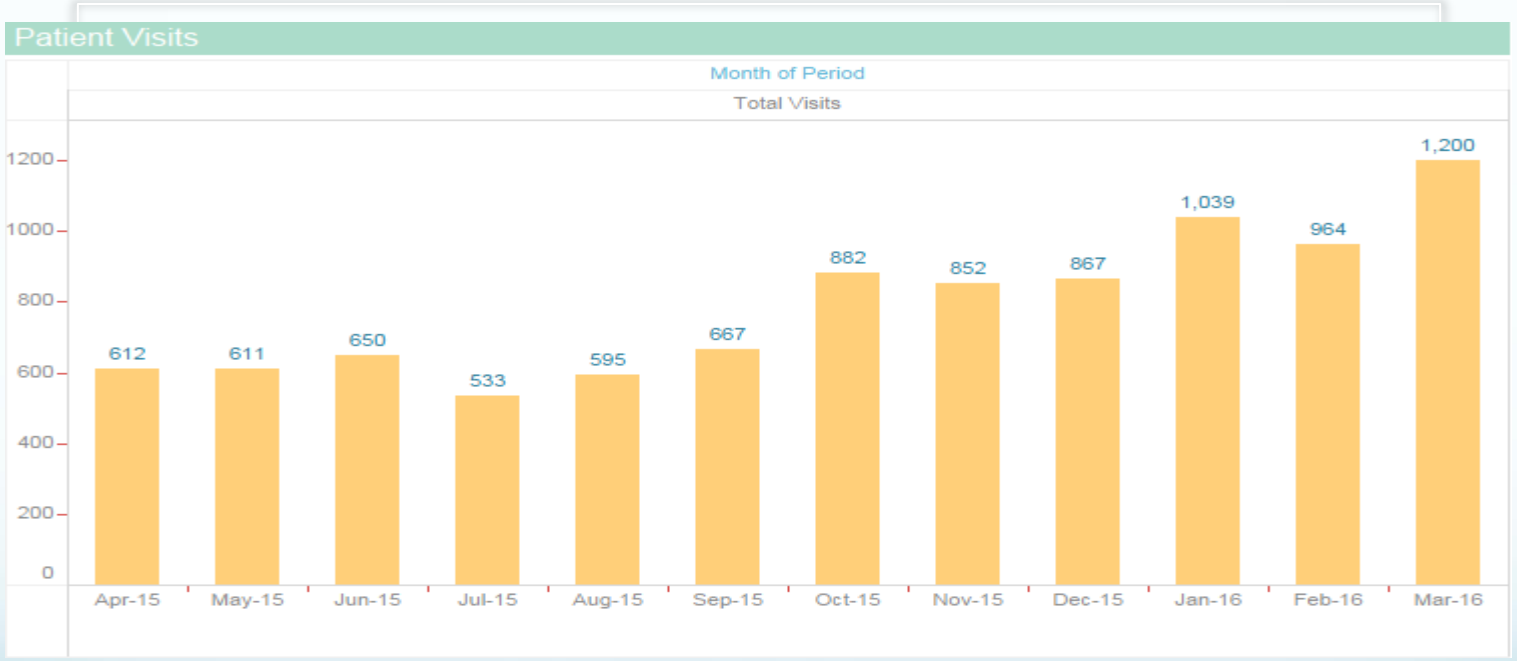
43 Bedded patient recovery unit – Completing treatments in recovery phase

Case Example

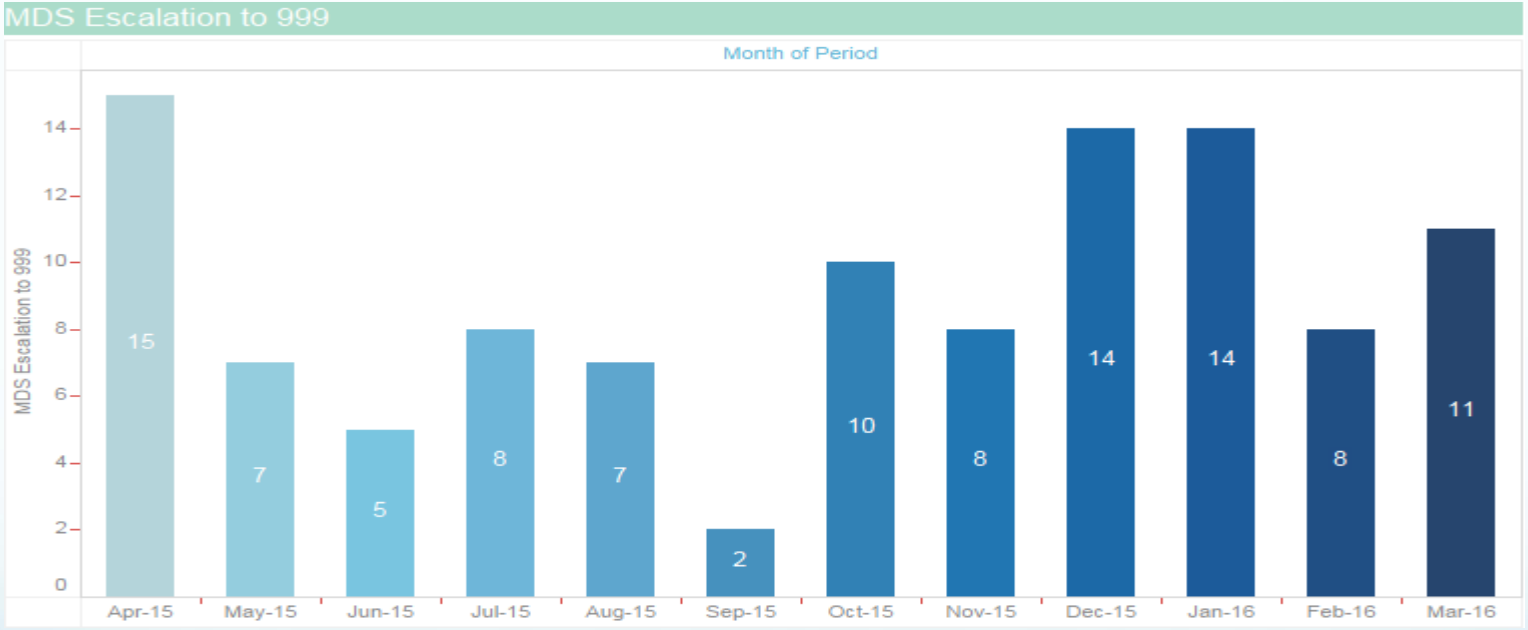
Building confidence in the service



Patient visits 2015/16



Escalation to 999



MHS documentation: a "note"-worthy improvement project.

Contributing team: S Akram, T Carney, D Coffey, P Davern, A Fitzgerald, C Fitzgerald, K Hikmat, C Nicholson, V Quinones.

خدمة الإسعاف
Ambulance Service
MOBILE HEALTHCARE SERVICE

Background

Mobile Healthcare Service is branch of Hamad Medical Corporation's Ambulance Service Group which provides transitional care to patients through it's Early Supported Discharge (ESD) program. Patients who qualify can receive short term acute care in their own homes instead of in the hospital. ESD has been associated with high patient satisfaction and, in some cases, improved clinical outcomes in other countries. In Qatar, the challenge of implementing ESD has highlighted the need for high quality clinical documentation. There is an ongoing programme within the MHS to improve the quality of our clinical documentation.

Aim

To deliver safe, high quality medical care to patients in their homes.
To develop a medical record system which is specifically tailored to the needs of a transitional care service.

SPECIFIC TARGETS (TO ACHIEVE BY JUNE 2016):

- 100% documentation of drug, dose, route, frequency, and duration for patients receiving IV antibiotics (HMC policy CL 6050).
- 95% completion of Discharge Summary (HMC policy CL 6037) for discharged patients.
- 95% of patients actually seen by MHS have complete minimum admissions information available in the chart ((HMC policies 6085, 7059): patient name, HC number, contact phone, allergy status, history, examination details, as well as patient location.

Methods

The Patient Care Record (PCR)

Used by Ambulance Service for acute care in rapidly changing situations. Not suitable for multi-contact review of patients.

MHS Medication documents

Version 1 IV adminstration sheet (Dec 2014)

Version 2 (Apr 2015)

Changed format to be easier to read. Allows for 3 different medication orders on one page. IV site documentation added.

Version 3 (July 2015)

Administration duration added.
Colour changes to make forms easier to read and fill out.

(Dec 2015)
Added warfarin documentation sheet
(Mar 2016) Updated warfarin documentation with dose adjustment

Cerner Electronic Medical Record

Used by HMC hospitals. Information dense. Difficult to prioritise transitional care issues, especially prior to the Discharge Summary being written.

Sep 2014 **Starting Point**

MHS Initial Visit Form

2 page summary of patient clinical history and hospital stay. Structured like an H&P interview.

January 2015
Expanded patient contact details. Dedicated address section for blue plate and more space for phone numbers.

Operational checklist added to support handover to the MHS Control Room

Currently

Mar 2016
Adopted ISBAR handover layout as most appropriate for multi-disciplinary transitional care service.

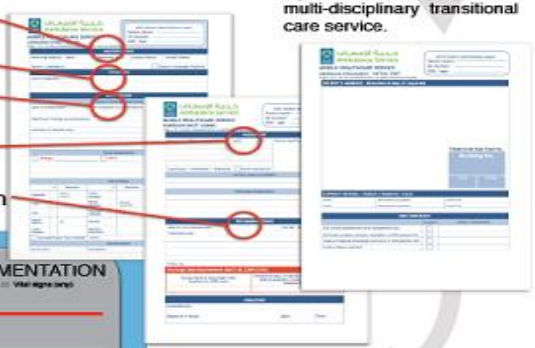
Identification
Correct patient
Correct location
Caller details

Situation
What is happening now?

Background
How did the current situation arise?

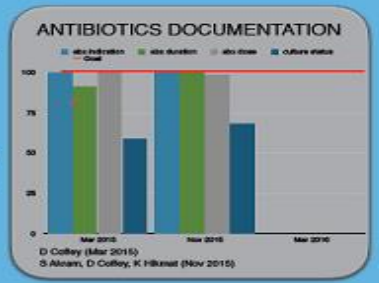
Assessment
What are the patient's current needs?

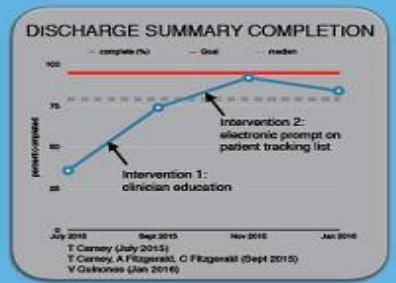
Recommendation
What actions are needed going forward?

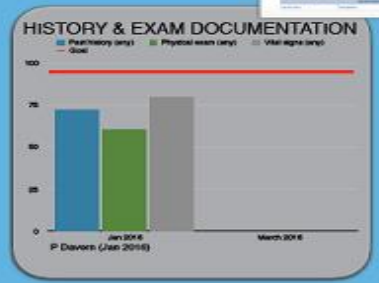


Results

We are making good progress towards our targets with consistent ongoing improvement being demonstrated across .
Once our targets are being consistently met the emphasis will shift toward maintenance of standards and preparing for







Future

Ongoing audits and educational packages for MHS clinicians.
Tablet-based electronic medical records?

Transitional care refererences here

Emergency admission avoidance

Transporting Resources

Supporting Resources

Supporting Resources

Emergency admission avoidance

Alpha Crew (999) deployment as usual

National Command Centre

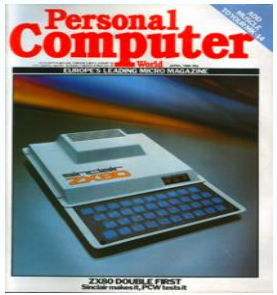
Co-Deployment with MHS

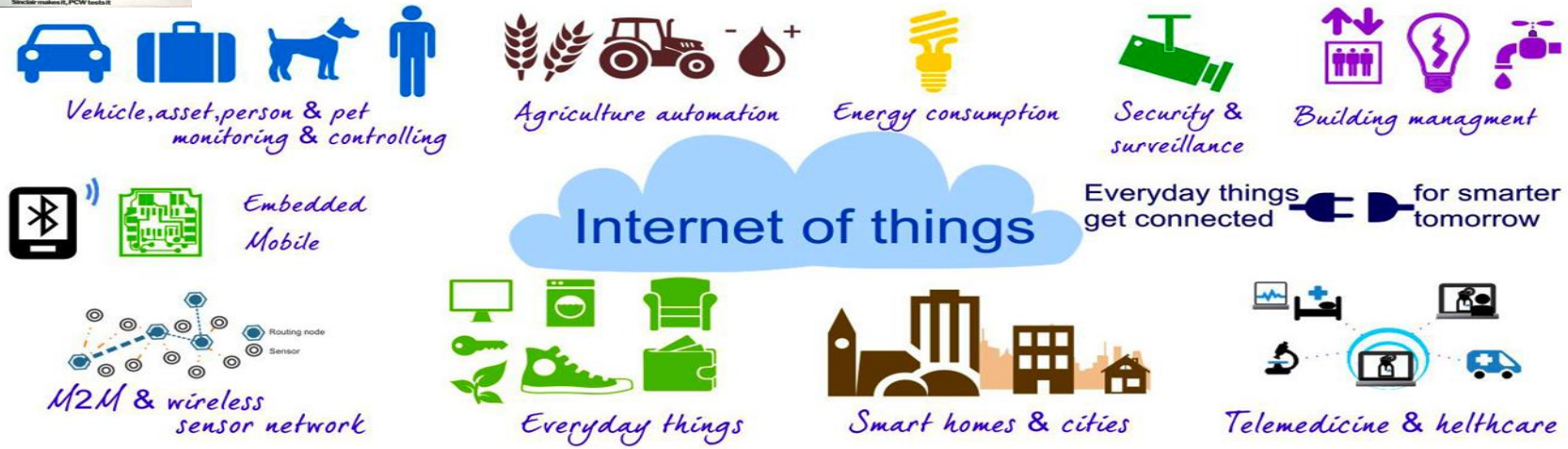
Patent treated in the right place

Ambulance Time saved

Medical support to Home Healthcare Services

Qatar University





- **165,000 Health Apps**
- **Downloaded 1.7 billion times**
- **$21.5 billion revenue by 2018**

Economist p55 March 12 2016

What's next?

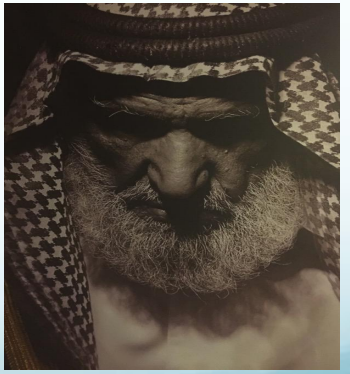
- Shaping resources to improve Continuity
- Feedback Feedback Feedback
- IT and mobile electronic patient records
- Volume and complexity expansion
- Team Training (IHI, CITI, CPD, LEAN)
- Demonstrate ROI

What's next? Cont'd

- Launch of Emergency Admission Avoidance
- Service expansion to longer transitional care
- New Pathways - New Hospitals
- Telemedicine - remote monitoring
- mHealth/Simulation QU partnerships

What patients really want (Detski 2011)

- 1. Restoration to health when ill
- 2. Timeliness
- 3. Kindness
- 4. Hope and certainty
- 5. Continuity choice and coordination



Detsky AS. What Patients Really Want From Health Care. JAMA. 2011;306(22):2500-2501. doi:10.1001/jama.2011.1819

Thank You