



KK Women's and
Children's Hospital
SingHealth



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Systems approach to Patient Safety and Experience

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Singapore Healthcare Management Congress 2017



PATIENTS. AT THE HEART OF ALL WE DO.®



Singapore
General Hospital



KK Women's and
Children's Hospital



Sengkang Health



National Cancer
Centre Singapore



National Dental
Centre Singapore



National Heart
Centre Singapore



National
Neuroscience Institute



Singapore National
Eye Centre



Polyclinics
SingHealth



Bright Vision
Hospital

A large blackboard filled with handwritten mathematical equations and diagrams, covering topics in quantum mechanics and electromagnetism. The board includes:

- Wave functions and probability densities: $\psi(r, \theta, \phi) = R(r)Y(\theta, \phi)$, $N(\theta) = \frac{N_{tot}}{2\pi} \int_0^{2\pi} |\psi|^2 d\phi$
- Angular momentum and energy levels: $L^2 = \hbar^2 l(l+1)$, $E_n = -\frac{13.6 \text{ eV}}{n^2}$
- Electromagnetic fields and potentials: $\nabla \cdot \mathbf{E} = \frac{\rho}{\epsilon_0}$, $\nabla \times \mathbf{E} = -\dot{\mathbf{B}}$
- Diagrams of atomic orbitals and particle paths.
- Various constants and numerical values, such as $\hbar = 1.054 \times 10^{-34} \text{ J}\cdot\text{s}$.







CHALLENGES IN HEALTHCARE

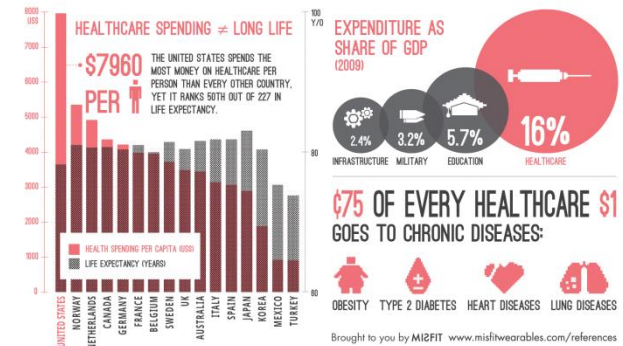
Complexity & stress



Rising costs

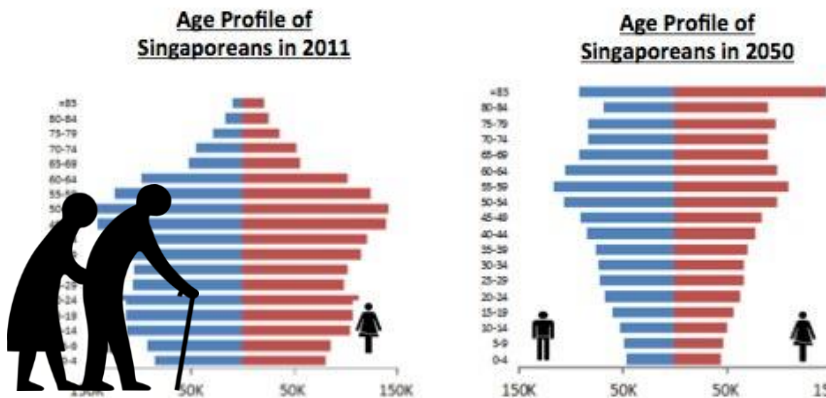


U.S. HEALTHCARE SPENDING



Increasing demand

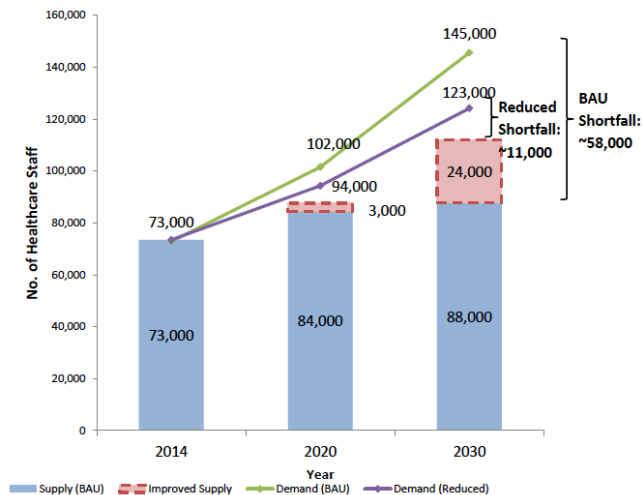
Age Profile of Citizen Population



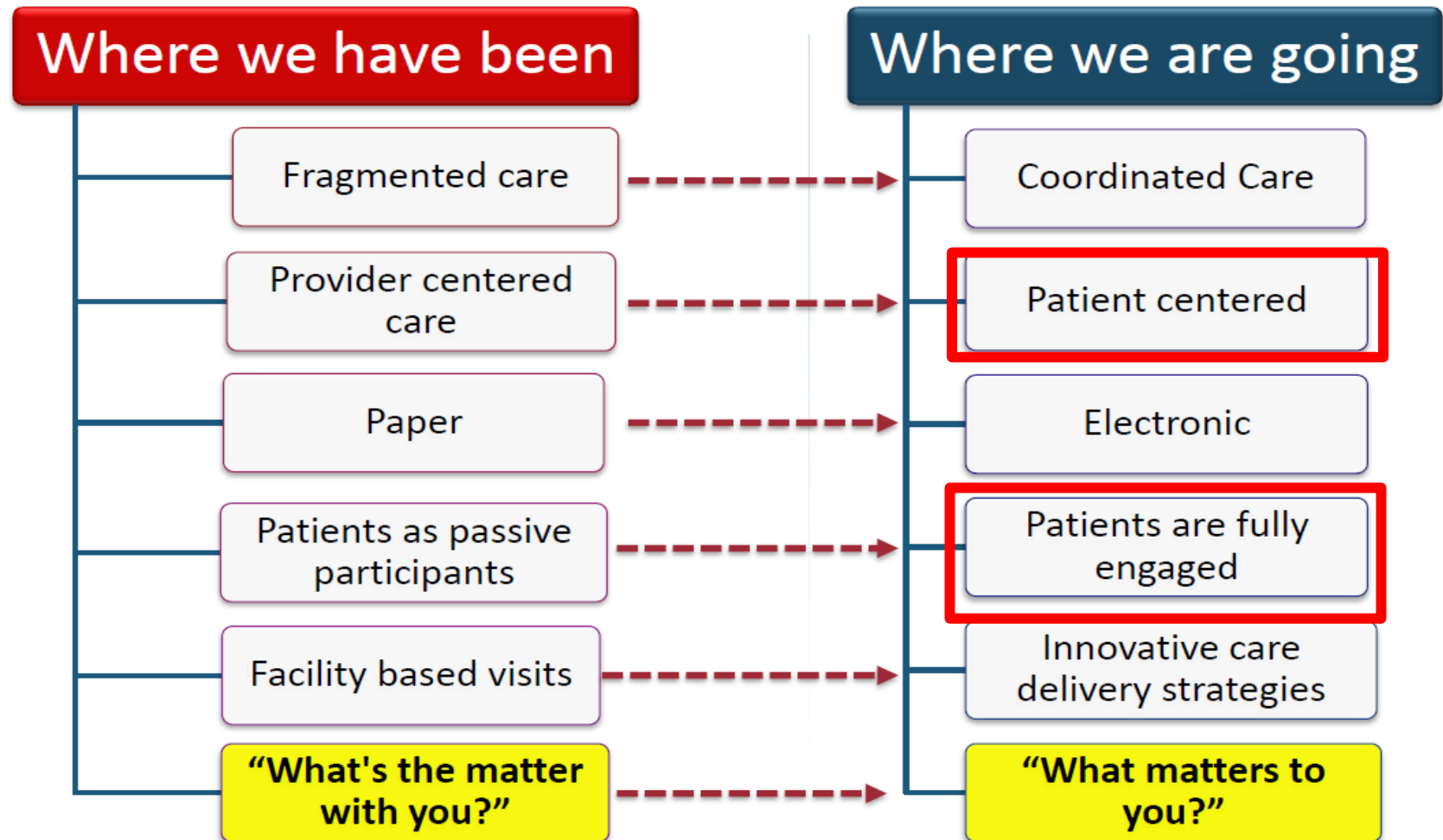
... we could be short of ~ 11k workers in 2030...
(equivalent to staffing in 2 acute hospitals)

EVEN AFTER

- Successfully attracting more Singaporeans into healthcare
- Achieving moderate success with care transformation efforts
- Achieving annual 2% productivity savings in public acute sector



FROM DISEASE CENTERED TO PATIENT-CENTERED CARE



*Barry MJ, Edgeman-Levitan S, “Shared Decision Making- The Pinnacle of Patient-Centered Care.” N Engl. J Med. 366; 9, pp 780-782

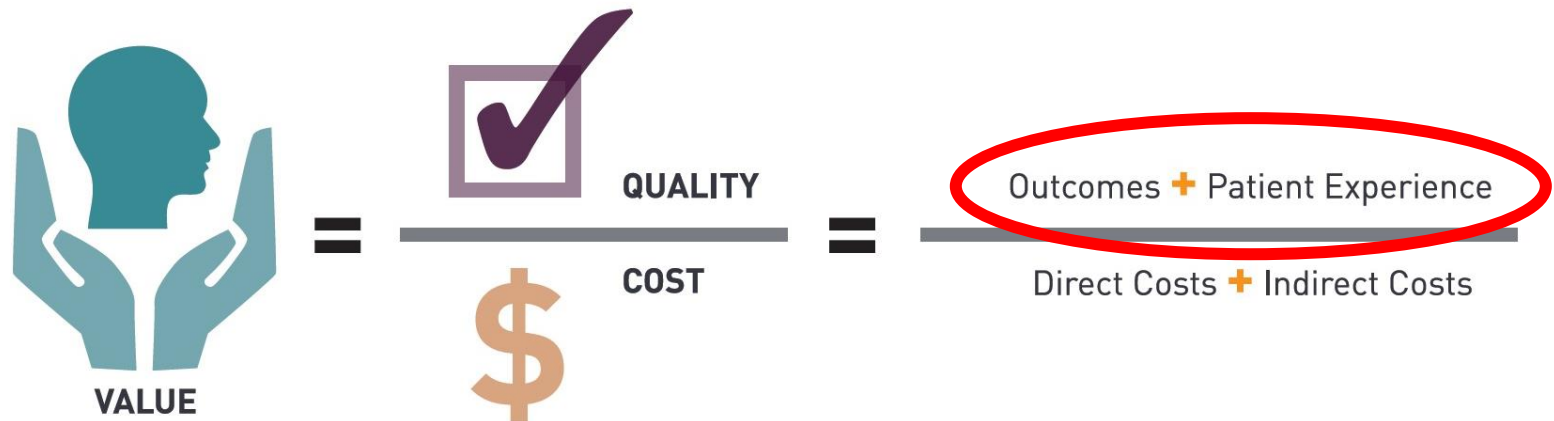


The NEW ENGLAND JOURNAL of MEDICINE

“In health care, value is defined as the patient health outcomes achieved per dollar spent.”

Michael Porter

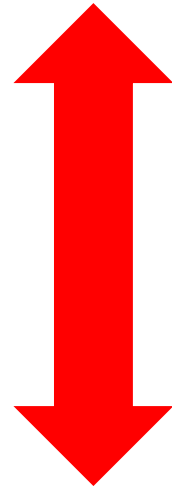
“Value in Healthcare”, NEJM 2010



patient



Patient – at the centre of all we do



Patient – a partner of all we do



patient

Patient safety and experience –in 30 years



After 10 years...



After 20 years...



After 30 years..

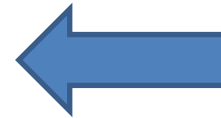


Clinician-researcher 1990s

Clinician-administrator 2000s



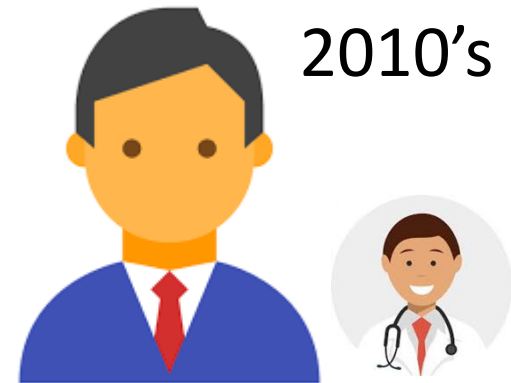
Apa...
experience?



Clinician 1980s

Administrator- clinician

2010's





Patient safety
/ quality

Patient
experience

Patient safety /
quality



Patient experience

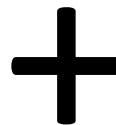
Clinical expertise

Clinical
outcome

Customer expertise

Patient
experience

What's the matter ?



What matters?



Patient Satisfaction

≠

Patient Experience

Patient Experience

The sum of all **INTERACTIONS**

The orchestrated touch-points of people, processes, policies, communications, actions and the environment

‘Traditional’ View:

- Patients lack formal medical training
- Patient-satisfaction measures “happiness,” – easily influenced by factors unrelated to care
- Patients base their assessment of their experience on their health status, regardless of the care they've received
- Patient-experience measures reflect fulfillment of patients' desires regardless of benefit

The Clinical Case for Improving Patient Experience

Ambulatory Care Improvement Guide on Practical Strategies for Improving Patient Experience

- Good patient experience is associated with important clinical processes and outcomes

Consumer Assessment of Healthcare Providers
and Systems (CAHPS)

Agency for Healthcare Research and Quality
(AHRQ)

Results of research study

- Study in 23 New Hampshire hospitals on patients hospitalized for heart attack
 - Patient-centered processes of care
 - Patient education
 - Discharge planning
- Patients with better care experiences had better health outcomes a year after discharge
 - Patient experience positively correlates to processes of care for both disease prevention and management

Fremont AM, et al. J Gen Intern Med 2001;14:800-8

Some Study Findings

- Effective physician-patient communication
 - correlates with adherence to medical advice and treatment plans

Zolnierok KB, et al. Med Care 2009; 47: 826-34

- Physicians' characteristics influence patients' adherence to medical treatment:
 - tendency to answer patients' questions
 - responsive and respectful
 - comprehensive knowledge of patients

Di Matteo MR, et al. Health Psychol 1993; 12: 93-102

Safran DG, et al. J Fam Parct 1998; 47: 213-20

Expanding patient involvement in care

Educating and empowering diabetic patients' participation in medical care for blood sugar control

- Fewer function limitations and better quality of life

Patients with better care experiences often have better health outcomes

Greenfield S, et al. Patients' participation in medical care: Effects on blood sugar control and quality of life in diabetes.

J Gen Intern Med 1988;3:448-5

A systematic review of evidence on the links between patient experience and clinical safety and effectiveness

To cite: Doyle C, Lennox L, Bell D. A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *BMJ Open* 2013;3:e001570. doi:10.1136/bmjopen-2012-001570

Cathal Doyle,¹ Laura Lennox,^{1,2} Derek Bell^{1,2}

Article focus

- Should patient experience, as advocated by the Institute of Medicine and the NHS Outcomes Framework, be seen as one of the pillars of quality in healthcare alongside patient safety and clinical effectiveness?
- What aspects of patient experience can be linked to clinical effectiveness and patient safety outcomes?
- What evidence is available on the links between patient experience and clinical effectiveness and patient safety outcomes?

Key messages

- The results show that patient experience is consistently positively associated with patient safety and clinical effectiveness across a wide range of disease areas, study designs, settings, population groups and outcome measures.
- Patient experience is positively associated with self-rated and objectively measured health outcomes; adherence to recommended medication and treatments; preventative care such as use of screening services and immunisations; health-care resource use such as hospitalisation and primary-care visits; technical quality-of-care delivery and adverse events.
- This study supports the argument that patient experience, clinical effectiveness and patient safety are linked and should be looked at as a group.

Experience and Desired Outcomes

Experience

- affects quality, safety and service
- is impacted by accessibility, communication and affordability

Aspired outcomes for healthcare organizations

- clinical outcomes
- consumer loyalty
- community reputation

Jason A. Wolf, PhD, CPXP, Founding Editor, Patient Experience Journal, President, The Beryl Institute

Crossing the "Us" vs "Them" Divide

Collaboration

Teamwork

**Common
Goals**

Transparency

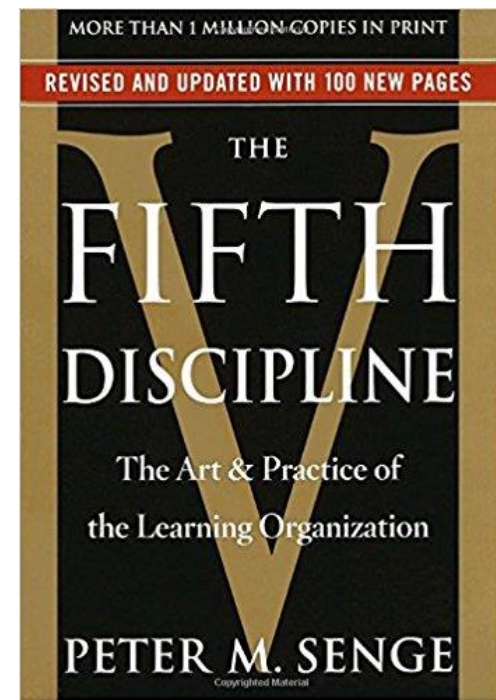
Accountability

KKH Experience: Using 'Systems Thinking' Tools

Leadership training for management

Learning tools

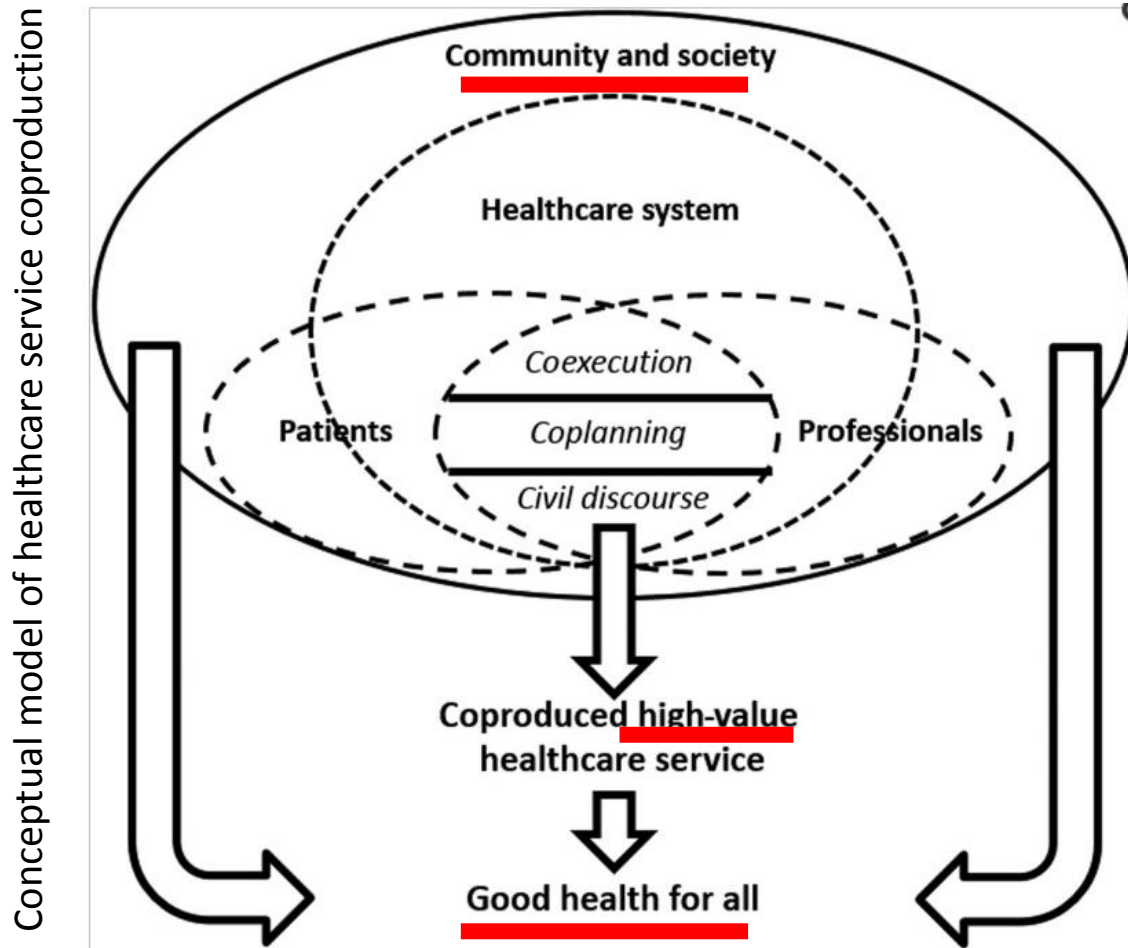
Skills acquisition



Active Patient Engagement

- Involve patients in their care
 - **Shared decision-making**
 - **Collaborative care planning**
 - Patients gain knowledge and skills to follow treatment plans and stay healthier
 - Share / Discuss health information with those involved in patient's care

Co-producing Healthcare



Coproduction of healthcare service (Batalden M, et al. BMJ Qual Saf 2015)

Building Community Capability

Paediatric Home Care and Community Care Services

- Started in 2001
- Services developed and expanded to smoothen the discharge process and readiness for care at home
- Value generation
 - Reduced re-attendances
 - Reduced re-admissions
 - Reduced cost



Building Community Capability Paediatric Home Care and Community Care Services

- Provision of care in the community
- KKH provides training to our partners and caregivers



Desired Outcomes

Family units of chronically ill children is stabilised and preserved

A model for caregiver support which provides **respite care** and mental health intervention is established

A community model for **caregiver support** is developed for Phase 2

Organizational Structure

Formal 'Dyad' of Clinician-Administrator

Quality, Safety and Risk Management

- Co led by Administrative Director and Physician as Clinical Director

Office of Patient Experience

- Co- led by Administrative Director and Physician as Clinical Director

Strategic Committees (e.g. Technology & Data Analytics)

- Co-chaired by Physician and Administrator

KKH Experience: Leadership Rounding



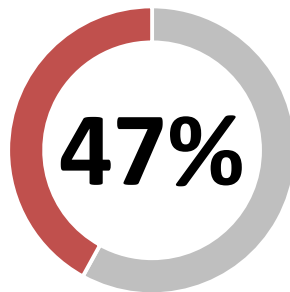
- Leaders meet with care teams and patients to dialogue
- Pairing Administrator and Clinician EXCO members
- Understand challenges, hear their concerns
- Discuss hospital issues
 - Infection control
 - Medication Safety
 - Strategic hospital initiative or focus

Leadership Rounding at Night

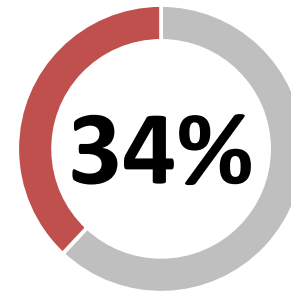


KKH Experience: Leadership Rounding

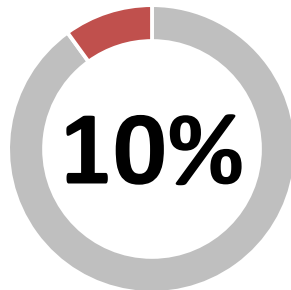
767 Issues Raised over 18 months



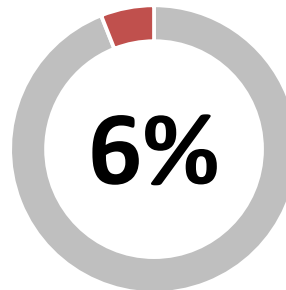
Issues Closed



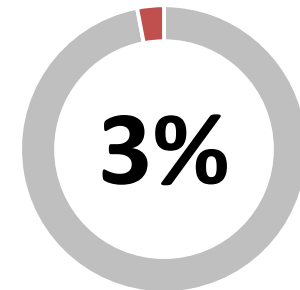
Following Up



Assessment done and no further action required



Workgroup Formed



Keep In View

Nursing Bedside Handing Over of Report

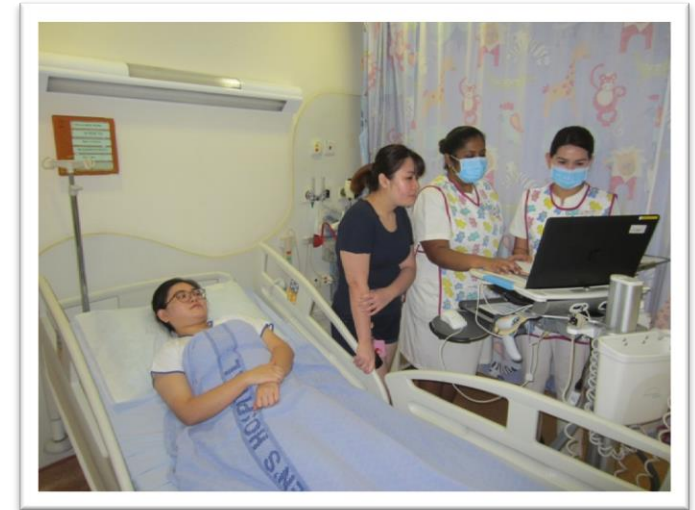
A new method of handing over patients' reports during change of nurses' shifts was initiated in 2010.

Instead of handing over report at the nurses' counter, we asked our staff to do it at the patients' bedsides.

Patients and caregivers are updated about medical conditions and management, hence involving them in their care.

Patients/ caregivers can also ask questions or clarify their treatment plans.

This initiative was well received by our patients and their caregivers.



Update condition on a regular basis



KKH Experience: Patient Engagement

- Bedside handover
 - Keep patients and caregivers updated on care plan
 - Encourage raising of safety concerns
 - Practice of anticipatory care

- Moving forward
 - Involvement in care process redesign projects



The New Patient Experience Survey Form

The New Patient Experience Survey is based on the Hospital – Consumer Assessment of Healthcare Providers and Systems (HCAHPS)

- A **well validated** patient experience survey used in all US hospitals receiving government grants
- Produces comparable data for public reporting – **benchmark** and learn from the best practices

FEEDBACK FORM
INPATIENT CHILDREN



Please provide your best answers to the following questions about your child's stay in KKH.
Please shade the appropriate circles.

DATE OF DISCHARGE
/ /
00000000

WARD CLASS
 A1 B2+ C
 B1 B2

MEDICAL SPECIALTY
 Medicine Surgery

PLACE OF EVALUATION
Ward
 31 56 75
 46 62 76
 51 65 85
 55 66 86
Step-Down Care
 Children's Step-Down Unit
 Special Care Nursery
ICU
 Children's ICU
 Neonatal ICU
Others
 Children's Day Therapy

WHEN YOUR CHILD WAS ADMITTED TO THIS HOSPITAL
 1. During the first day of this hospital stay, were you asked to list or review all of the prescription medicines your child was taking at home?
 Yes, definitely No
 Yes, somewhat

2. During the first day of this hospital stay, were you asked to list or review all of the vitamins, herbal medicines, and over-the-counter medicines your child was taking at home?
 Yes, definitely No
 Yes, somewhat

YOUR CHILD'S EXPERIENCE WITH NURSES
 3. How often did your child's nurses listen carefully to your child?
 Always Sometimes
 Usually Never

YOUR CHILD'S EXPERIENCE WITH DOCTORS
 4. How often did your child's nurses explain things in a way that was easy for your child to understand?
 Always Sometimes
 Usually Never

5. How often did your child's nurses encourage your child to ask questions?
 Always Usually
 Sometimes Never
 My child is unable to speak yet

6. How often did your child's doctors listen carefully to your child?
 Always Sometimes
 Usually Never

7. How often did your child's doctors explain things in a way that was easy for your child to understand?
 Always Sometimes
 Usually Never

FEEDBACK FORM
INPATIENT WOMEN



Please provide your best answers to the following questions about your stay in KKH.
Please shade the appropriate circles.

DATE OF DISCHARGE
/ /
00000000

WARD CLASS
 A1 B2+ C
 B1 B2

MEDICAL SPECIALTY
 Obstetrics Medicine
 Gynecology Surgery

PLACE OF EVALUATION
Ward
 32 43 81
 34 44 82
 42 71
ICU
 Women's ICU
Others
 Delivery Suite
 Women's Day Therapy

YOUR CARE FROM NURSES
 1. How often did nurses treat you with courtesy and respect?
 Always Sometimes
 Usually Never

YOUR CARE FROM DOCTORS
 2. How often did nurses listen carefully to you?
 Always Sometimes
 Usually Never

3. How often did nurses explain things in a way you could understand?
 Always Sometimes
 Usually Never

4. After you pressed the call bell, how often did you get help as soon as you wanted it?
 Always Usually
 Sometimes Never
 I never pressed the call bell

5. How often did doctors treat you with courtesy and respect?
 Always Sometimes
 Usually Never

6. How often did doctors listen carefully to you?
 Always Sometimes
 Usually Never

7. How often did doctors explain things in a way you could understand?
 Always Sometimes
 Usually Never

DELIVERING YOUR BABY
 8. Did you have a vaginal delivery or a C-Section?
 Vaginal
 C-Section
 Not applicable
 * Go to Question 18
 9. Before your delivery, did you get all the information you wanted from your doctor about having your baby?
 Yes, definitely
 Yes, mostly
 Yes, somewhat
 No

Our Commitment...Our Pledge

TARGET ZERO HARM



- Actively identify and mitigate risk to prevent harm – **Speak Up!**
- Have **open and honest sharing** of good catches, best practices, observations within our teams and beyond.
- Continue to build a culture in which **everyone** accepts he or she is accountable for safety.
- Accept that “good enough” is simply not enough – **we can do better!**



We will keep our Patients Safe!

I will...

Act Now!

Speak Up!

Be **Accountable**

And **Partner**
everyone

For including
patients

Patient Safety ASAP



**SPEAK UP
FOR
HAND HYGIENE**

Clean Hands Save Lives

Patient Safety

A.S.A.P Act now, Speak Up, be Accountable, and Partner everyone for patient safety.

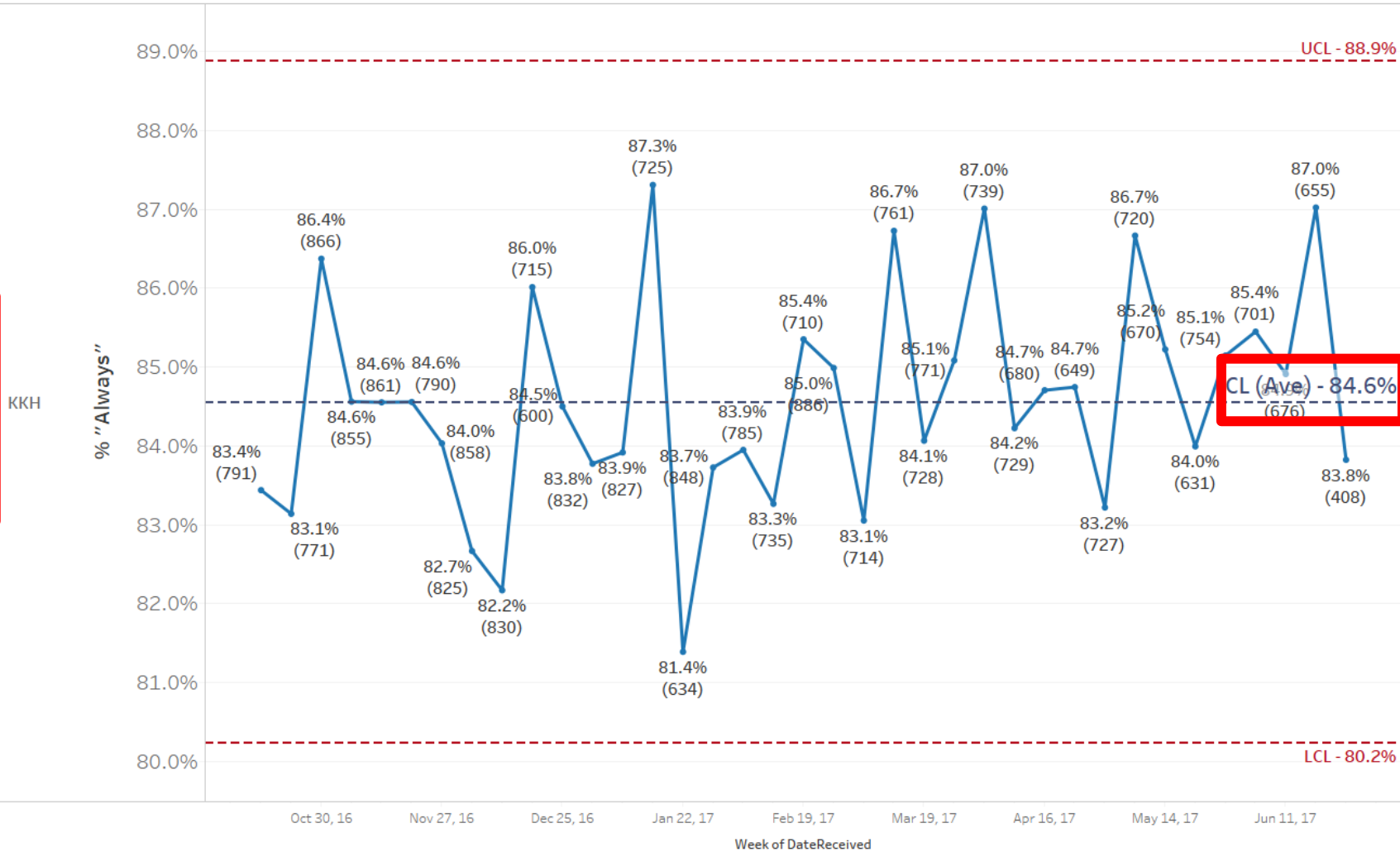
5 Moments for Hand Hygiene in a Clinical Setting

We take hand hygiene very seriously and we are committed to ensure the health and safety of our patients. The next time you see a healthcare staff perform the 5 moments, thank them!

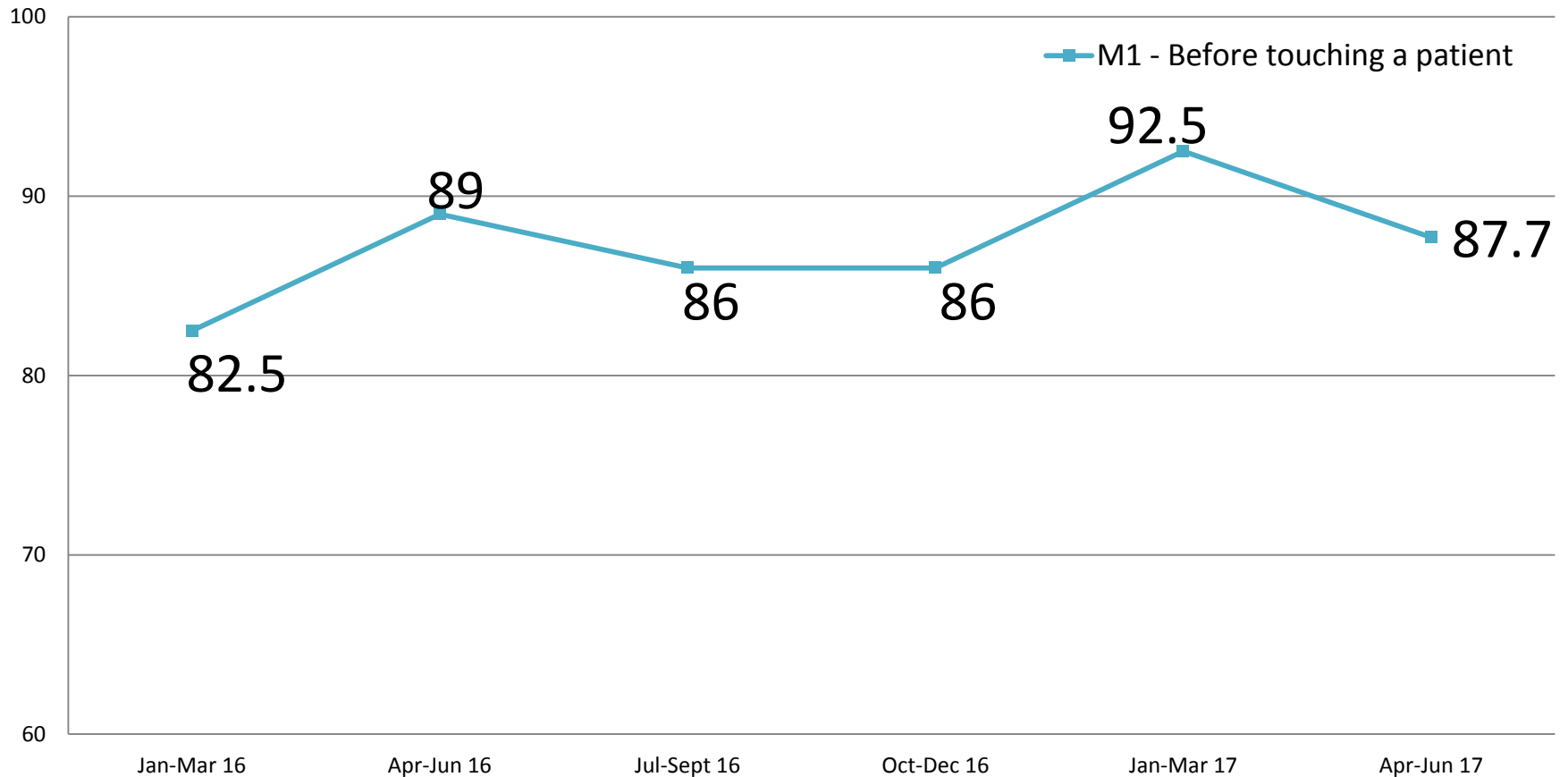
- 1** **Before touching a patient**
When? Clean your hands before touching a patient when approaching him / her.
- 2** **Before clean / aseptic procedure**
When? Clean your hands immediately before performing a clean / aseptic procedure.
- 3** **After body fluid exposure risk**
When? Clean your hands immediately after an exposure risk to body fluids (and after glove removal).
- 4** **After touching a patient**
When? Clean your hands after touching a patient and his / her immediate surroundings, when leaving the patient's side.
- 5** **After touching patient surroundings**
When? Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving – even if the patient has not been touched.

KKH Doctors' Hand Hygiene - Moment 1

How often did doctors voluntarily wash or sanitize their hands before caring for you/your child?



KKH Nurses Hand Hygiene Compliance Rate - Moment 1 Jan 2016 - Jun 17



Human Factors - Hand Hygiene in ICU

Patient zones to manage overcrowding & equipment cross-infection



Just-in-time reminders for clinicians to clean their hands

Patient Zones
are marked with yellow tape in CICU and Stepdown Unit

Max **3 staff** inside patient zone
(unless requiring assistance)

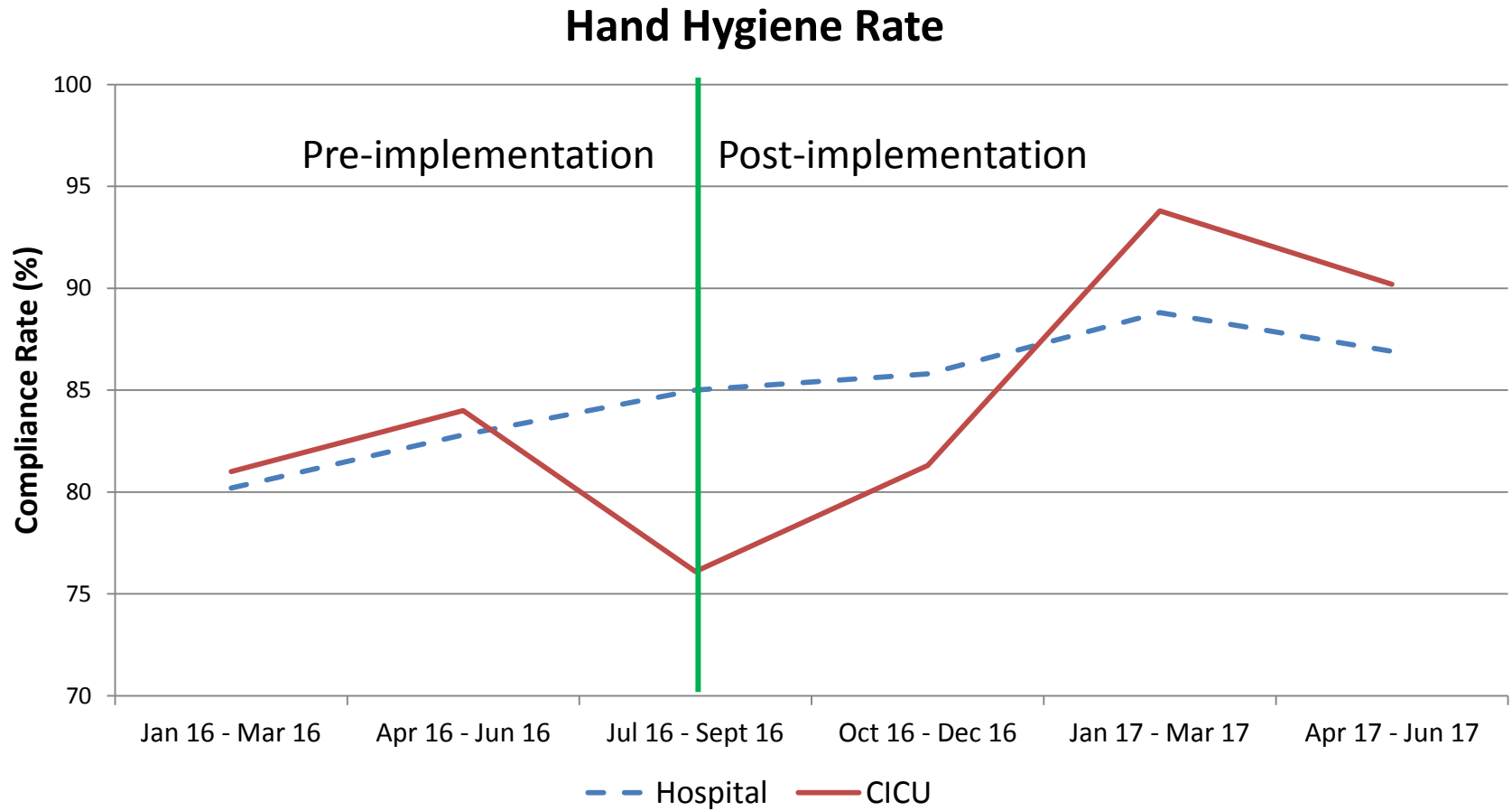
When entering and leaving

Remember to practise hand hygiene please!

Orh, okay. Thanks!

SPEAK UP FOR SAFETY An Infection Control Project by CICU

Human Factors - Hand Hygiene in ICU



Enterprise Risk Management

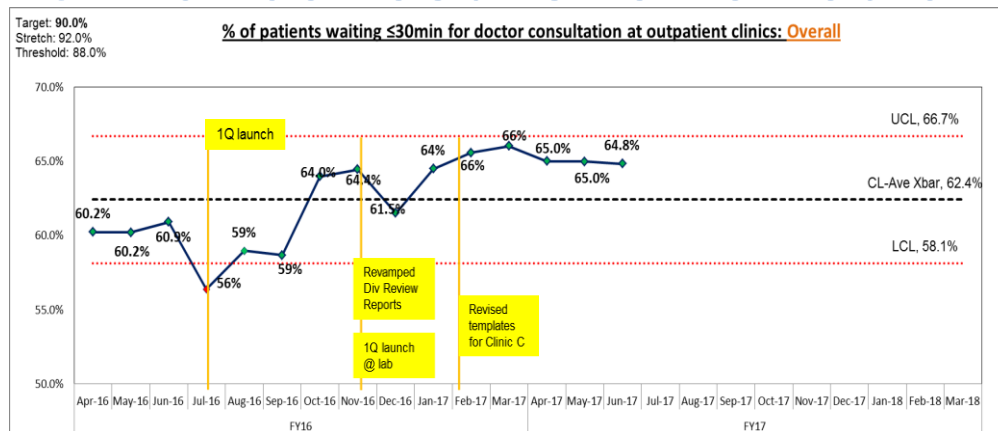
- Use Enterprise Risk Management to address potential system failures
- Multi-disciplinary approach to bring all stakeholders to the table
 - Assess risks
 - Formulate mitigating measures

Risks	Current Mitigation and Mitigation	Risk Rating with Current Mitigation	Changes to Controls	Change to Current Mitigation	Risk Rating after Changes to Controls	Responsible Parties/Department
1. Unrestricted number of visitors	1. Visitor policy in place 2. Nursing and Security enforcing compliance with the visitor policy 3. Signages on no. of visitors allowed access to ward 4. Patients are oriented and given a brochure during admission 5. Hospital has limited access at night and after visiting hours eg. No access at the weekends and after hours (there are programmes to separate between certain floors only to control visitor movement)	Unacceptable	1. Limit the number of visitors at bedside 2. Visitors for restricted areas e.g. HD, ONCO, ICU, A patients for non-restricted areas 3. For ICU Security will do the rounds at 8pm.	Significant improvement	Acceptable	1. Leadline One/ICU Mgt 2. Security/ICU Security
2. Overcrowding of visitors in patient area	1. Visitor policy in place 2. Nursing and Security enforcing compliance with the visitor policy 3. Security conducting regular rounds in the entire hospital 4. Nursing and Security use of talking holder with digital lock to each patient and caregiver	Highly Acceptable				Nursing and SPD
3. Ward safety issues	1. Visitor policy in place 2. Nursing and Security enforcing compliance with the visitor policy 3. Nursing & SD intervention to manage overcrowding	Highly Acceptable				Nursing/SPD
4. Time spent managing PR issues	1. Visitor policy in place 2. Nursing and Security enforcing compliance with the visitor policy	Highly Acceptable				Nursing/SPD
5. Noise	1. Visitor policy in place 2. Nursing and Security enforcing compliance with the visitor policy	Highly Acceptable	1. Limit the number of visitors at bedside 2. Visitors for restricted areas e.g. HD, ONCO, ICU, A patients for non-restricted areas 3. Repeat signs indicator in shared cubicles 4. No visitors allowed after 8pm. Only 1 caregiver per patient 5. Lock down of floors after 8pm and implement ward rounds	Substantial improvement	Highly Acceptable	Leadline One/ICU Mgt
6. Change patient care	1. Visitor policy in place 2. Nursing and Security enforcing compliance with the visitor policy	Highly Acceptable	1. Limit the number of visitors at bedside 2. Visitors for restricted areas e.g. HD, ONCO, ICU, A patients for non-restricted areas 3. Timing of medication will change to 20 min to 8pm for general aspects. For Restricted areas: 10 min to 8pm and 8pm to 8am. 4. No visitors allowed after 8pm. Only 1 caregiver per patient. 5. Small locks indicator in shared cubicles. No visitors allowed after 8pm and implement ward rounds	Substantial improvement	Highly Acceptable	Leadline One/ICU Mgt



Data to improve experience: e.g. Waiting Time

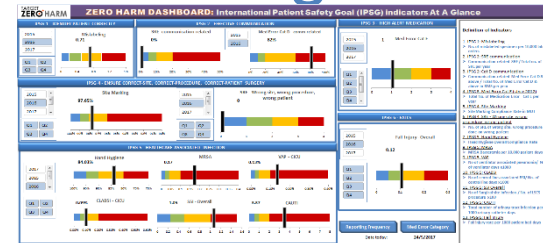
- Waiting time as a systemic and not local clinic operations issue
- Data analytics and business intelligence tools
- Dissemination to clinical department heads for action
- Performance results reviewed at division meetings



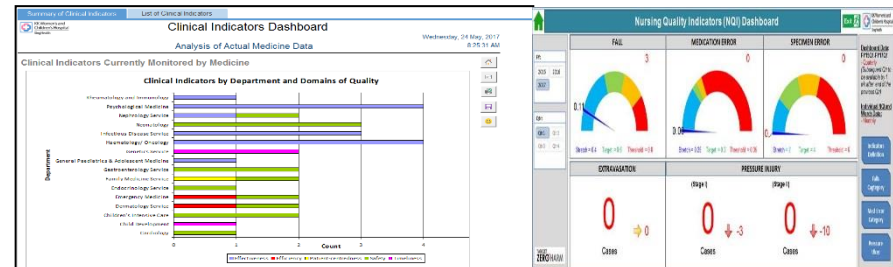
KKH Experience: Transparency & Data-sharing

Dashboards and Reports for open sharing across departments and divisions

- IPSPG (patient safety) indicators



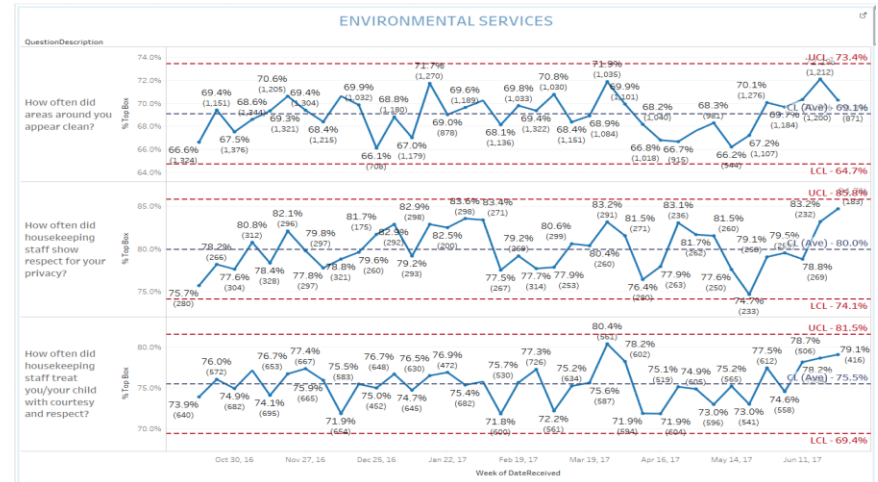
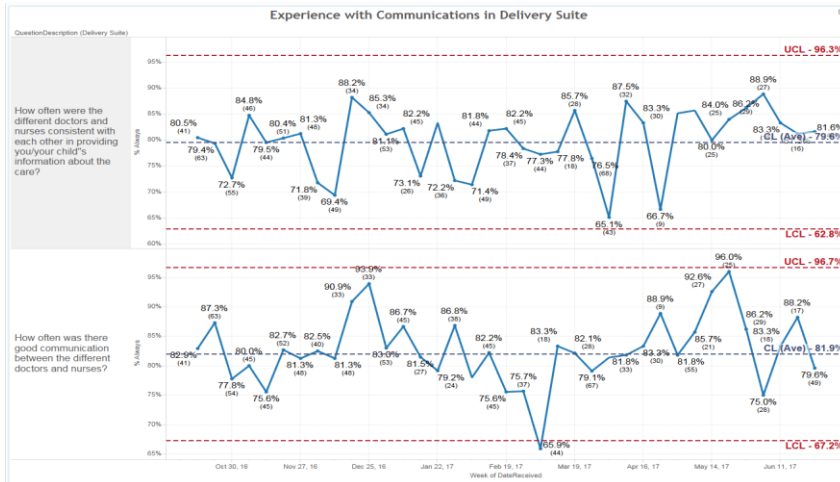
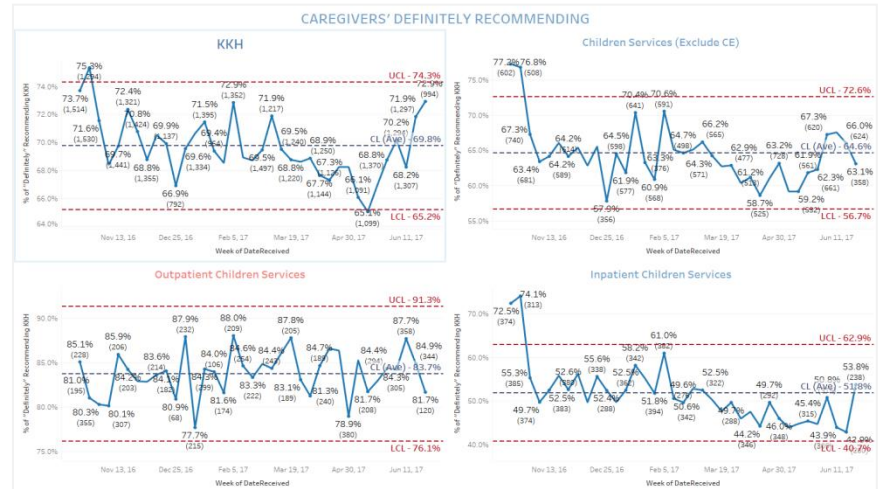
- Clinical indicators for medical and nursing



- Patient experience

Weekly Patient Experience Reports on Infopedia

- 80 Dashboards
- 4480 Control Charts
 - reported by ward / class
 - can be further filtered by specialty
- Accessible to all staff with a network ID



Conclusions

- Patient safety/quality and patient experience are parts of the same 'outcome that matters'



MY FAMILY



Twinkl.com



Conclusions

- Patient safety/quality and patient experience are parts of the same 'outcome that matters'
- Systems approach behooves establishing shared vision and goals for all stakeholders, including patients



Conclusions

- Patient safety/quality and patient experience are parts of the same 'outcome that matters'
- Systems approach behooves establishing shared vision and goals for all stakeholders, including patients
- Use data wisely to encourage co-creation of solutions and to develop value-based healthcare



**The eyes
are useless
when the
mind is
blind.**

THANK YOU