EQUIPping an Academic Medical Centre with a Sustainable Clinician QI Capability. Developed for the Clinicians. By the Clinicians.

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National University Hospital (NUH), an Academic Medical Centre in Singapore, had integrated QI project completion in clinical career milestones. EQUIP (Enabling Quality Improvement in Clinical Practice) was developed to teach NUH doctors as well as to develop QI faculty, with the view to support the National University Heath System (NUHS) cluster’s QI training needs in the future.

**Background**

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**Methodology**

EQUIP’s goal was to identify, plan and execute improvement projects throughout the organization through experiential learning. Training materials and concepts were sourced from centres of excellence (e.g. AHRQ, IHI) aligning topics with the Ministry of Health - National Curriculum. Cost savings/avoidance was a new component added to ingrain value-based care in the minds of our clinicians and the emphasis of adding a ‘patient’s voice’ in the project.

The EQUIP framework was designed to ensure that maximal support is given to the clinician leaders.

Leadership support is evident with strict nomination and project approval by the Head of Department. Face-to-face engagement between mentor and mentee is emphasised. We pair a doctor with a faculty who is not necessarily from their own department, to offer a fresh perspective while encouraging a peer and collegial relationship. Project aim statements were crafted with ambitious but reasonable goals. The project has a 6 months’ completion timeline, a generous timeline to see the effects of the PDSA cycles.

**Results**

Five workshops were conducted with a total of 67 clinicians trained, comprising 51% Consultant, 32% Associate Consultants, 12% Residents, 5% Senior Consultants. Majority are from Anaesthesia (21%), Medicine (16.4%) and ENT (7%) departments.

The top three project themes were: reducing harm (e.g. reducing needle stick injuries, unnecessary prolonged fasting before surgery, reducing radiation exposure), compliance to best practices (e.g. standardizing anaesthesia care, increase vaccination uptake, improving clinical documentation); and prompt discharge/right sighting of patients.

Overall content grading showed an average of 94% good to excellent rate with very favorable verbatims.

The project completion rate was 92% as compared to previous 70%. 72% of the project leaders said that they are likely to take-up another QI project. Six facilitators were added to the faculty pool from O&G, Surgery, ENT and Dental.

Cost savings of $227,800 was achieved if external course fee/pax is calculated. However, the most important benefit is laying down the platform for the development of clinician-QI leaders in NUH/NUHS.

**Conclusion**

The EQUIP facilitators have exhibited ownership and pride for a home-grown program as compared to the external course. We have seen increased clinician leaders’ confidence that they can bring about the necessary change. We are assured that in the infinite number of opportunities in the future, our clinicians can apply what they have learned to patient care. MOH recently completed a mapping exercise of all PSQI courses in Singapore against the National Curriculum, and EQUIP was found to have fully fulfilled the personal and team learning objectives with the potential to organise quality professional teaching.

The EQUIP program has been extended to revamp the Residents’ QI training framework to ensure that a common language and approach to QI are taught to the different clinician ranks.