

# Reimagining Healthcare: Siriraj Hospital's Digital Transformation Journey

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The Centre for Healthcare Innovation's (CHI's) 20th Masterclass spotlighted Siriraj Hospital's transformation into Thailand's first 5G smart hospital through a human-centered approach to digital innovation. Presented by Assoc Prof Cherdchai Nopmaneejumruslers, Vice President for Information Technology and Digital Transformation, Mahidol University; Assoc Prof Pitipol Choopong, Chairman of R2R Unit, Faculty of Medicine Siriraj Hospital and Dr Sichon Luerithiphong, Director of Centre for Value Driven Care, Faculty of Medicine Siriraj Hospital, the session demonstrated how organisation culture becomes the engine that powers sustainable digital transformation.

## Building Innovation from Within

Siriraj Hospital's transformation journey begins with a simple yet powerful philosophy:

**“ Viewing Problems as Gifts, rather than obstacles.**

This shift in mindset forms the foundation of Siriraj's innovation culture, guided by the brief that "**Cleanliness is where the dirt is**" – a metaphor for how wisdom emerges from addressing routine challenges and transforming everyday problems into innovation opportunities.

Contrasting with top-down directives, Siriraj Hospital recognised that massive and lasting change require intrinsic motivation. Inspired by Mother Teresa's reminder that "**We can all do small things with great love**", the hospital cultivated a culture where every staff member, regardless of role, could contribute to meaningful change. This ethos challenges self-limiting beliefs and empowers staff to see themselves as innovators.

To bring this vision to life, the hospital introduced practical mechanisms that aligns with Peter Senge's learning organisation framework. Staff were encouraged to pursue continuous skill improvement, supported by safe spaces for experimentation.

Platforms like MARVIS provide free AI models to 60,000 staff, creating sandboxes designed around the concept of '**fail fast but fail safe**'.



Siriraj Hospital leaders present Thailand's first 5G smart hospital transformation.

Such environments empower individuals to freely explore creative solutions to daily challenges without fear of failure.

## Routine-to-Research: Innovation in Action

These cultural cornerstones paved the way for the Routine-to-Research (R2R) programme, a transformation programme that elevates everyday work into systematic inquiry. At its core,

**“ R2R turns complaints, crises and workflow bottlenecks into structured improvement projects, with staff closest to the problem leading the solutioning.**

Failure, within the programme, is not punished but reframed as a valuable learning opportunity that helps create psychological safety. Successes and setbacks alike are shared widely through learning platforms, ensuring that knowledge spreads across departments and the wider healthcare system.

To further support this process, facilitators from the R2R Unit are embedded within departments to provide coaching, while leadership provides funding for project trials. Assoc Prof Cherdchai highlighted that the R2R Unit bridges between leadership and ground-up teams, facilitating immediate problem solving whilst aligning with strategic priorities.

R2R's success is exemplified by an ophthalmology clinic nurse who discovered a combination drug to replace sequential administration – work that was subsequently published and since spread across Thailand. This demonstrates how frontline innovation can achieve meaningful clinical impact when properly supported.

### Value Driven Care and Building Inclusive Innovation through Play

In the spirit of mutual learning and adaptation, Siriraj Hospital drew from CHI's Innovation Cycle to create its value-driven care model. The model combines design thinking to understand customer and staff needs, with LEAN methodologies to eliminate waste using disruptive technologies. The resulting framework prioritises value creation over technology implementation, delivering the "healthcare everywhere service" that particularly benefits Thailand's rural populations – a strategy that earned the hospital the Thailand LEAN Award 2022 – Diamond Level.

### Learning from R2R

R2R Unit's operating model offers valuable insights for CHI. Currently, CHI's Digital Innovation Offices (DIO) supports project owners from scoping to initiation, as demonstrated by projects funded under the Tan Tock Seng Hospital Digital Prototyping Budget where frontliners lead as project owners whilst receiving end-to-end navigation support. DIO also provides resources to enable NHG Health innovators to effect transformative change.

This includes organised learning opportunities such as HEAL Fridays and the Digital Innovation Studio (DIS), a sandbox environment that supports innovation projects through technical advisory services, access to Amazon Web Services (AWS) cloud services as well as structured pathway for deploying and scaling successful prototypes.

Building on these existing strengths, CHI could enhance its approaches by adopting Siriraj's strategy of embedding facilitators directly into NHG institutions and departments, with CHI@Campuses serving as the ideal vehicle for this embedded support model.



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