



Singapore Healthcare Management 2025

KK TelePaeds Pilot at KKH

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Introduction

KKH Children's Emergency (CE) faced significant challenges with overcrowding and prolonged wait times.

Key Issues

- 49% of all visits were non-emergency cases
- P3 patients faced wait times of up to 156 minutes

Impact

- Inefficient utilisation of emergency resources
- Increased risk of infectious disease exposure for children in crowded waiting areas
- Significant strain on CE staff managing both emergency and non-emergency cases

These challenges highlighted the pressing need for service transformation.

Aim

To provide teleconsultation with medication delivery for children with non-emergency acute medical conditions

Expected Benefits for Patients and Caregivers

- Eliminate unnecessary visits to Children's Emergency (CE)
- Protect patients and caregivers from exposure to infectious diseases
- Reduce medical consultation waiting times

Expected Benefits for Staff

- Decrease CE workload, allowing staff to focus on complex emergency cases
- Reduce congestion in CE waiting areas

Implementation Focus

Rapid development of service to address immediate needs

Methodology

Patient-Centric Development Approach

KK TelePaeds was developed through collaborative journey mapping workshops, uniting frontline staff and stakeholders to design the ideal patient experience. The team embraced an agile methodology, launching the pilot using a Minimal Viable Product (MVP) and enabling rapid iterations and continuous improvements across both development and automation phases. Post-consultation surveys were implemented to gather valuable insights into caregiver satisfaction and feedback to improve the pilot.

Strategic Use of Digital Tools and Available Solutions

The technical architecture leverages whitelisted self-help low-code/no-code digital tools and existing solutions:

- FormSG for secure data collection
- CalSG for appointment scheduling
- UiPath (robotic process automation software) for automated backend operations
- Zoom for video consultation
- Rida for medication delivery



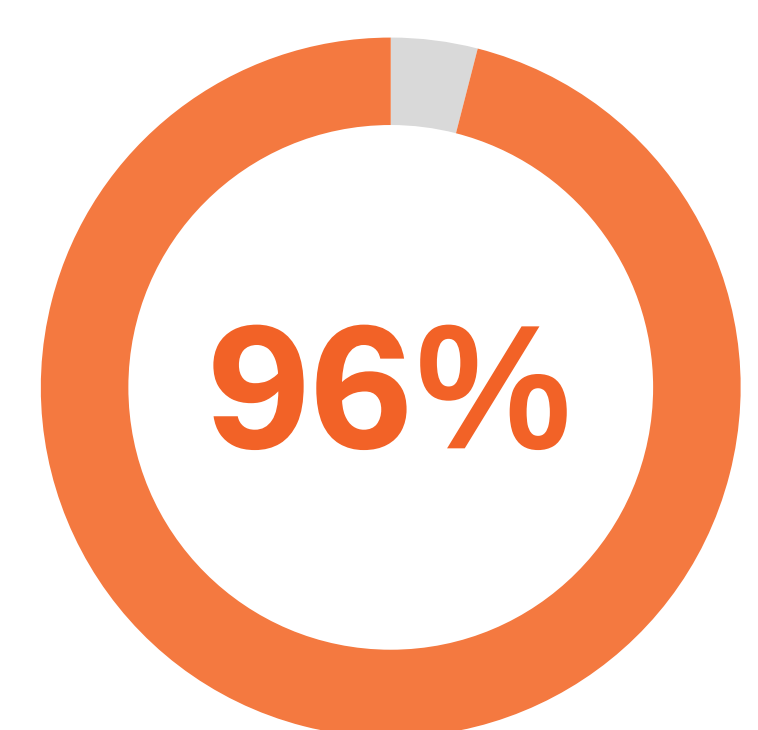
This significantly reduced development costs, enhanced security compliance and accelerated deployment of the MVP, reducing implementation time by 50%.

Results

KK TelePaeds has delivered significant improvements across multiple stakeholder groups:

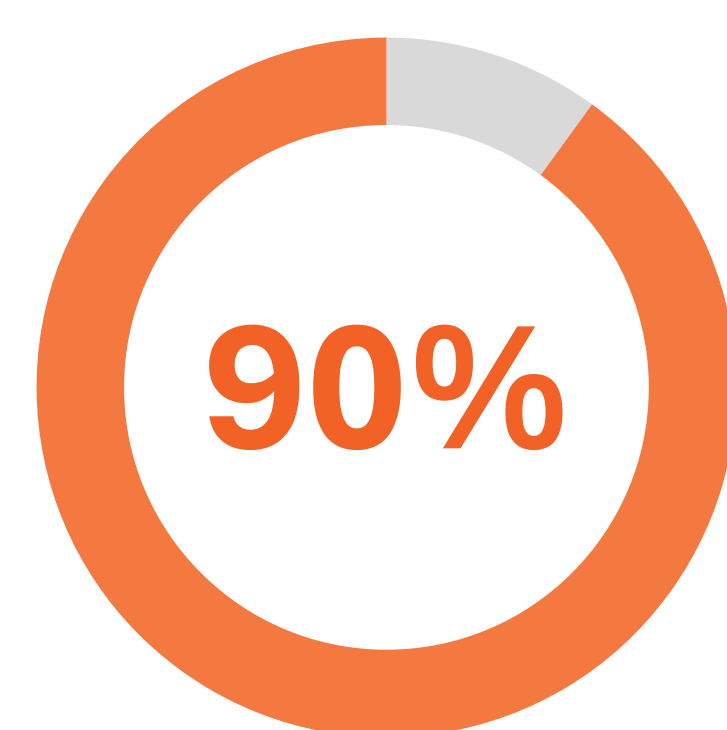
Key Results (accurate as of April 2025)

310
patients benefited from the pilot

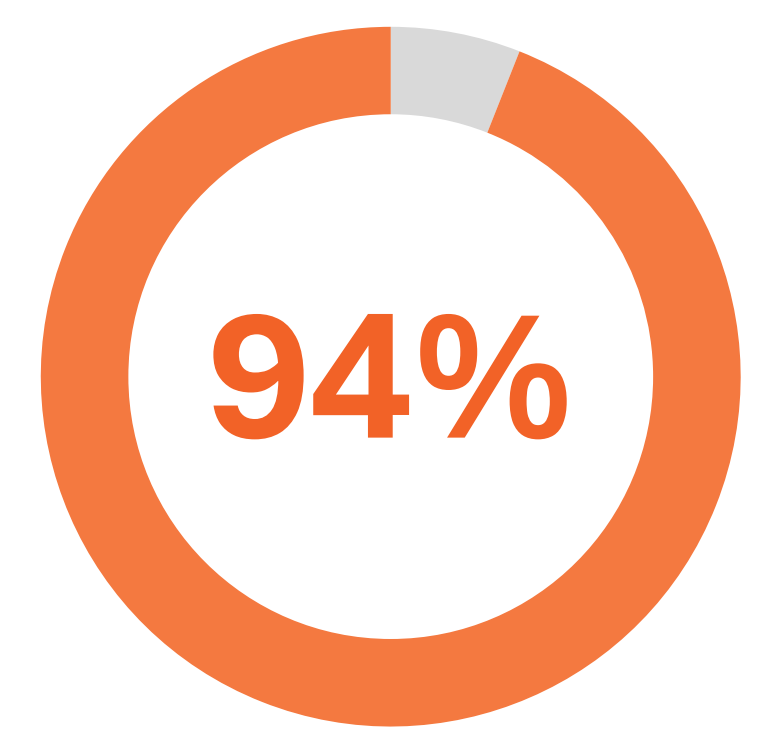


agreed that the service saved them a trip to CE*

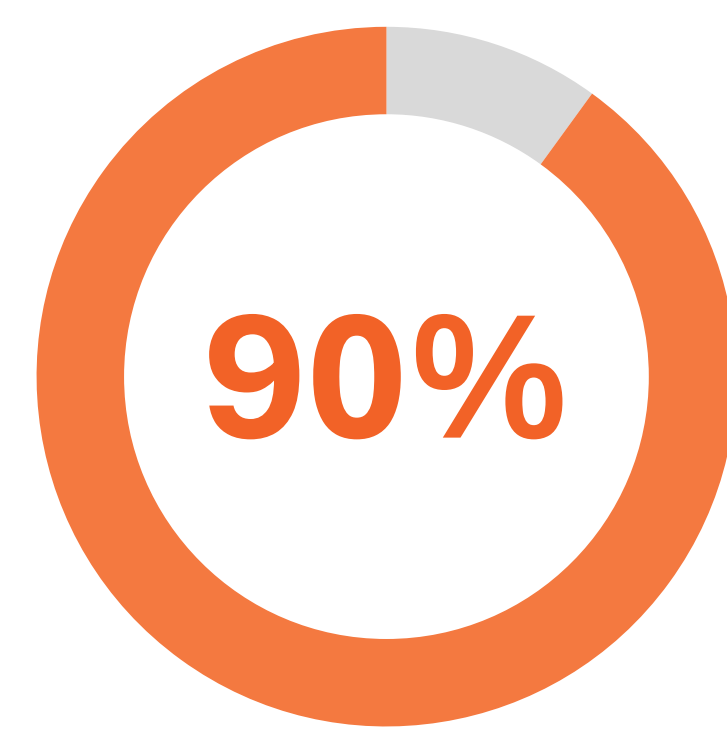
43 mins
of waiting time saved per patient



rated the service equal to or better than in-person consultations*



were satisfied or very satisfied with the service*



would recommend the service to friends and family*

*n=51

“Doctor is well aware of patient’s history and last visit to the KKH A&E. She was able to explain his condition very well and gave us plenty of assurance. **Without this service, we would have brought our son to KKH A&E again.**”

“Dr is clear with explanation. Consult is within a good time frame. Availability of the service at a time when PD is not available. Convenient service for working mother of 2 young kids. **Service avoid unnecessary exposure to virus at CE (for the other healthy child)** when no extra help at home.”

“This is great for cases where parents just needed an assurance that whatever they currently doing is fine. Otherwise they'll advise to go to A&E. **It saves a lot of waiting time and effort.** Especially helpful for working parents. Thank you for this service.”

Additional Results

The pilot achieved significant operational efficiencies:

- Implementation time was halved, with the pilot service designed and developed in 6 months instead of the typical 12-month timeline for a similar service
- Automated processes eliminated 95% of manual administrative tasks

Conclusion

KK TelePaeds pilot effectively met patient needs while alleviating CE in-person workload and crowding through its digital-first approach.

The pilot service demonstrated exceptional results, serving 310 patients with high satisfaction rates, while saving them 43 minutes of waiting time:

- 96% avoided CE visits
- 90% rated service equal to or better than in-person consultations
- 94% were satisfied or very satisfied with the service
- 90% would recommend the service to friends and family

The pilot was developed using approved digital tools, established solutions and agile methodology, enabling deployment in half the usual development time while maintaining IT security and cost-effectiveness. This successful innovation demonstrates how service transformations can maintain clinical excellence while significantly improving healthcare accessibility and resource optimisation.

