

Hospital Authority Convention 2026



# Leading Change in Documentation: Factors Shaping Nurses' Adoption of e-Doc Systems in Hong Kong

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# Background



## The Digital Shift in Nursing

- Nurses manage vast patient data daily — documentation is central to care
- Hong Kong Hospital Authority launched a system-wide e-Doc rollout in 2023
- e-Doc can improve accuracy, communication & care quality...
- ...but adoption is not automatic — nurses face real barriers



Limited computer access & unstable networks



Inadequate training & digital literacy gaps



Increased cognitive workload for frontline nurses

**Study Aim: Understand factors that drive or hinder nurses' adoption of e-Doc in acute hospital settings**

# Theoretical Framework



## Two Complementary Models

### TAM

Technology Acceptance Model  
(Davis, 1989)

- ✓ Perceived Usefulness  
(Will it improve my work?)
- ✓ Perceived Ease of Use  
(Is it simple to operate?)

+

### DOI

Diffusion of Innovations  
(Rogers, 1962)

- ✓ Relative Advantage
- ✓ Compatibility
- ✓ Complexity
- ✓ Trialability
- ✓ Observability

*Together, TAM + DOI capture both personal perceptions AND organisational factors shaping technology adoption*

# Methodology



## Study Design

- Descriptive cross-sectional quantitative study



## Setting & Sample

- 4 Kowloon West Cluster hospitals
- 90 RNs & ENs invited → 51 valid responses (Response rate: 57.8%)



## Data Collection

- 25-item Google Forms survey (5-point Likert scale)
- April 2025



## Analysis

- Pearson correlation
- Stepwise regression (AIC)
- Cronbach's  $\alpha = 0.93$

# Participant Profile (N = 51)



82%

Female

49%

Age > 45 yrs

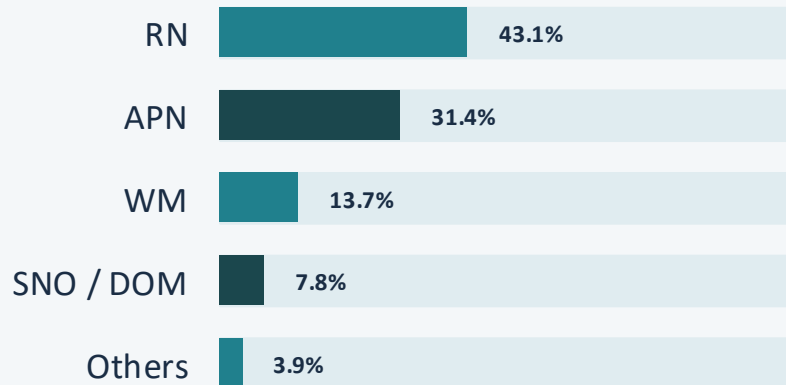
51%

>20 yrs experience

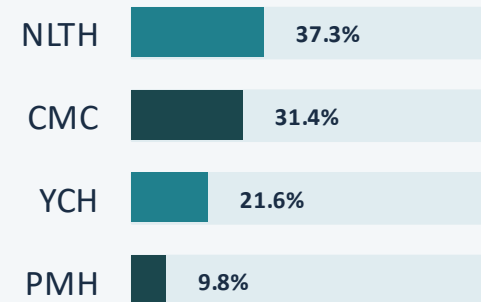
61%

Master's Degree

## Positions of Respondents



## Hospital Distribution



# Key Findings



$$R^2 = 0.82$$

82% of variance in nurses' adoption intention explained

*Most TAM and DOI constructs showed significant positive correlations with adoption intention. Complexity was the only exception ( $p > .05$ ).*

#1

## Relative Advantage

$r = 0.873 \bullet p < .001$

RA

When nurses see e-Doc's benefits outweighing its disadvantages, they are significantly more willing to adopt and recommend it

#2

## Observability

$r = 0.791 \bullet p < .001$

OB

When peer use of e-Doc is visible and normalised, nurses' own intention to adopt the system is strongly reinforced

**Nurses who see clear benefits and observe peers using e-Doc are far more likely to adopt it themselves**

# Implications for Practice



## Communicate Real Benefits

01

Highlight how e-Doc saves time, reduces errors, and improves communication — not just its technical features

## Boost Visibility

02

Showcase success stories, live demos, and peer-to-peer sharing; leverage 'super-users' as champions

## Targeted, Hands-on Training

03

Replace theory-heavy sessions with real-world workflow simulations and competency-based education

## Foster a Supportive Culture

04

Encourage open discussion, shared learning, and nurse leader involvement in technology planning

*These strategies apply to any new module or quality improvement feature — not just initial rollouts*

# Putting It into Practice — Wound and Packing Module Phase 2 in CMS (Example)



*Scenario: Rolling out the Wound and Packing Module Phase 2 in CMS*

<b>Week 1–2</b> <i>Relative Advantage</i>	<b>Show the Value</b> Ward Manager demonstrates how CMS wound records are clearer and faster to hand over than paper charts — showing the real benefit of going digital
<b>Week 2–3</b> <i>Observability</i>	<b>Make It Visible</b> Two super-user nurses use the Wound and Packing Module during actual dressing rounds — colleagues see it working at the bedside, not just in a training room
<b>Week 3–4</b> <i>Perceived Usefulness</i>	<b>Train by Doing</b> Short bedside coaching sessions replace lecture-style training; nurses practise documenting real wound care in CMS with super-user guidance
<b>Week 4+</b> <i>Ongoing</i>	<b>Sustain the Culture</b> Weekly 15-minute sharing sessions where nurses discuss what works, troubleshoot issues, and celebrate improvements in wound documentation quality

*Each step maps directly to a study finding — translating research into ward-level action*

# Limitations & Future Directions



## Limitations

- Single healthcare cluster — generalisability limited to KWC
- Cross-sectional design — causation cannot be established
- Self-report bias — social desirability may affect responses
- No qualitative data — lived experience not captured

## Future Research Directions

- Multi-cluster & multi-region samples
- Mixed-methods designs to capture lived experience
- Longitudinal studies to track attitude changes
- Apply TAM + DOI to AI-assisted documentation

# Conclusion



- Perceived Benefits & Visible Peer Use are the top drivers of e-Doc adoption
- If you know how a nurse feels about two things, you can predict adoption with 82% accuracy
- Show the value, make great use visible, and build a culture of supported learning
- The technology is ready. The question is whether we are ready to lead the change.

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**Thank You**