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AI in health care

Opportunities and challenges

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Jakarta (virtual), Conference on “Intersectionality in Action: A deep dive with policymakers and practitioners on AI, health workforce and serving vulnerable Indonesian workers”
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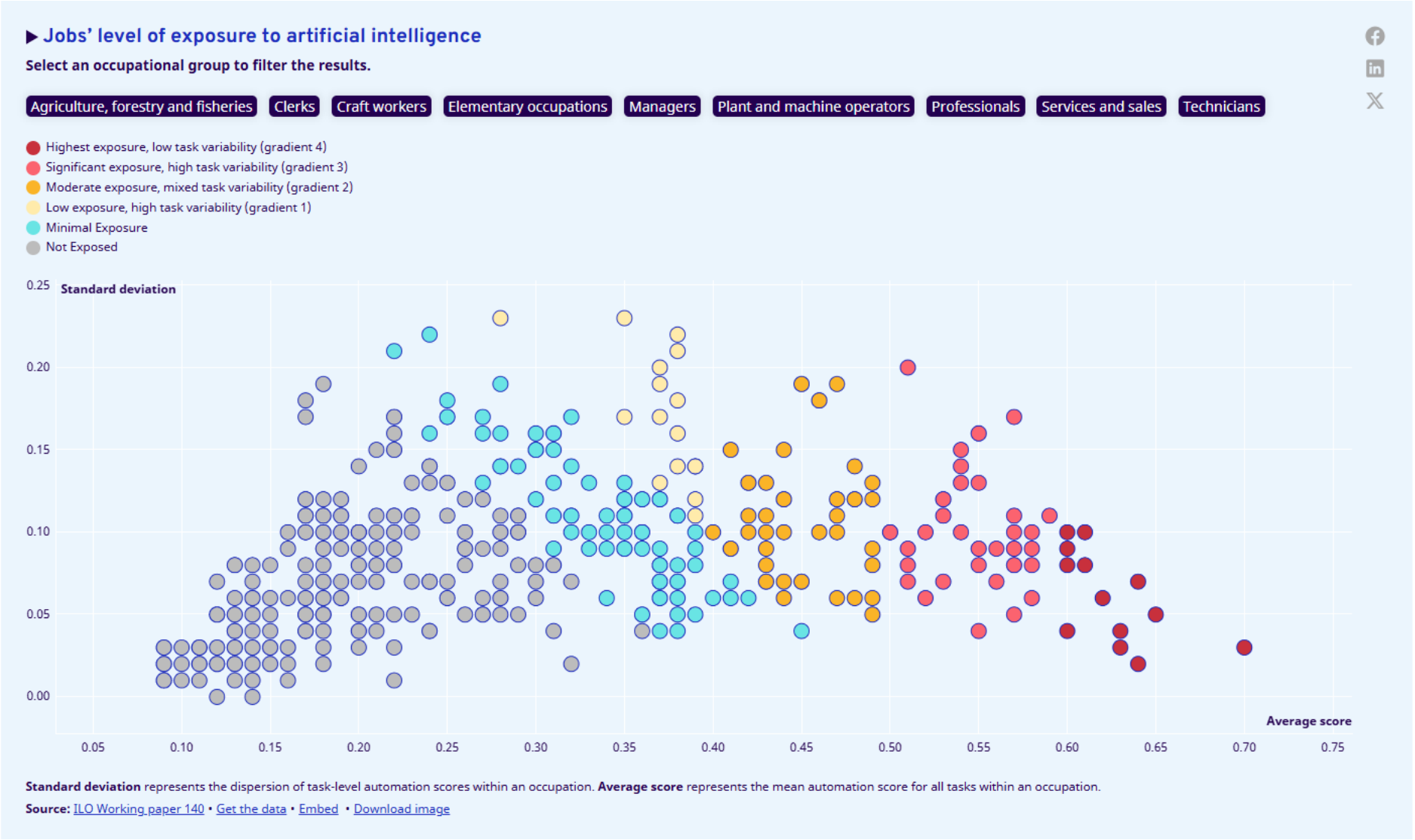
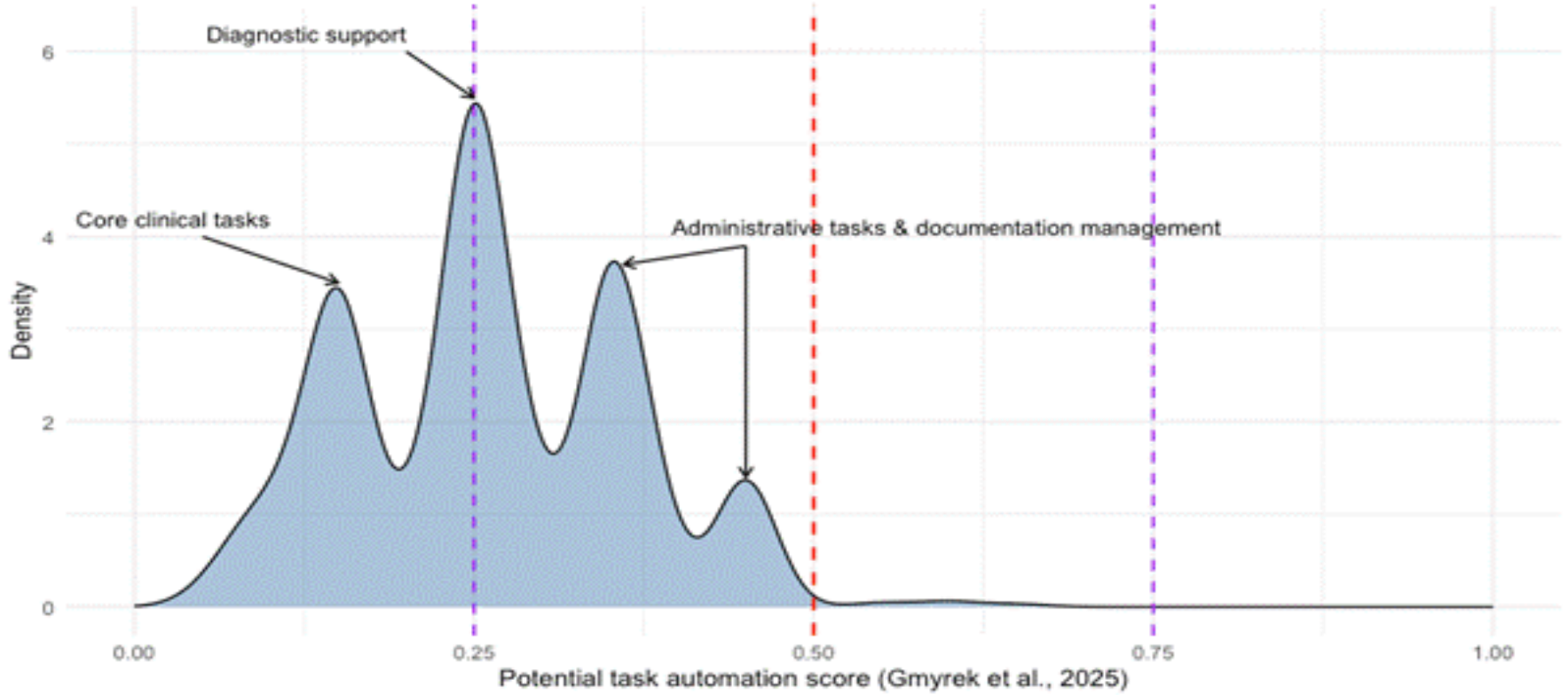
Possible effect of AI on quantity of health care employment: Minimal risk compared with other sectors



Jobs are a bundle of tasks: Some health care tasks more amenable to automation than others

Distribution of Potential Task Automation Scores in 6-Digit Medical Occupations in Poland



Potential work transformation: Managing the process to get the best possible outcome

- ✓ Health care professionals are relatively immune to the risks of job displacement from AI, given the wide range of tasks that require human engagement.

- ✓ At the same time, we know that across the world there are shortages of healthcare professionals, with the WHO estimating a shortfall of roughly 30 million workers by 2030.
  - high patient-to-provider ratios
  - Uneven distribution of medical expertise

- ✓ Strong interest and investment in digital technologies and AI applications for health care

➔ Now is the time shape the outcomes

- ➔ All stakeholders have a role to play

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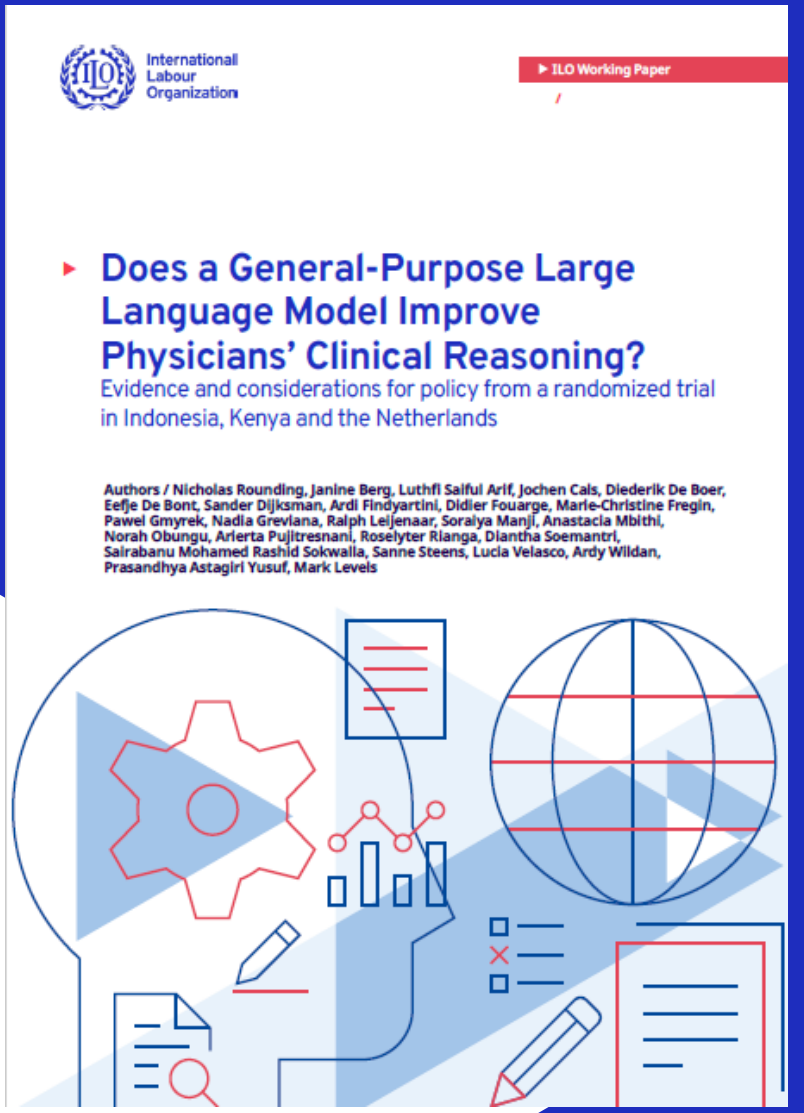
RCT study of effect of LLM on physicians' clinical reasoning: Indonesia, Kenya and the Netherlands

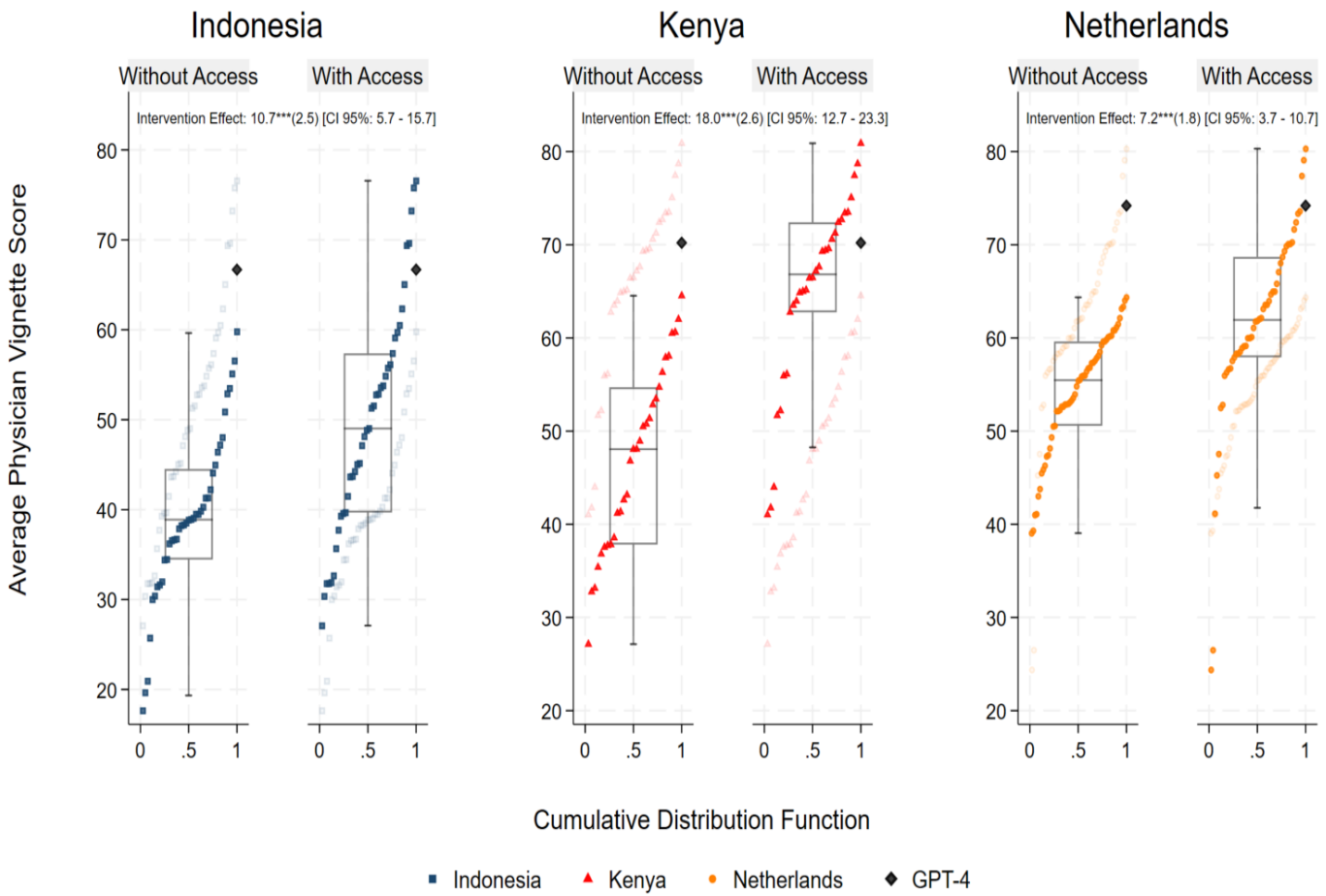


The design of the RCT

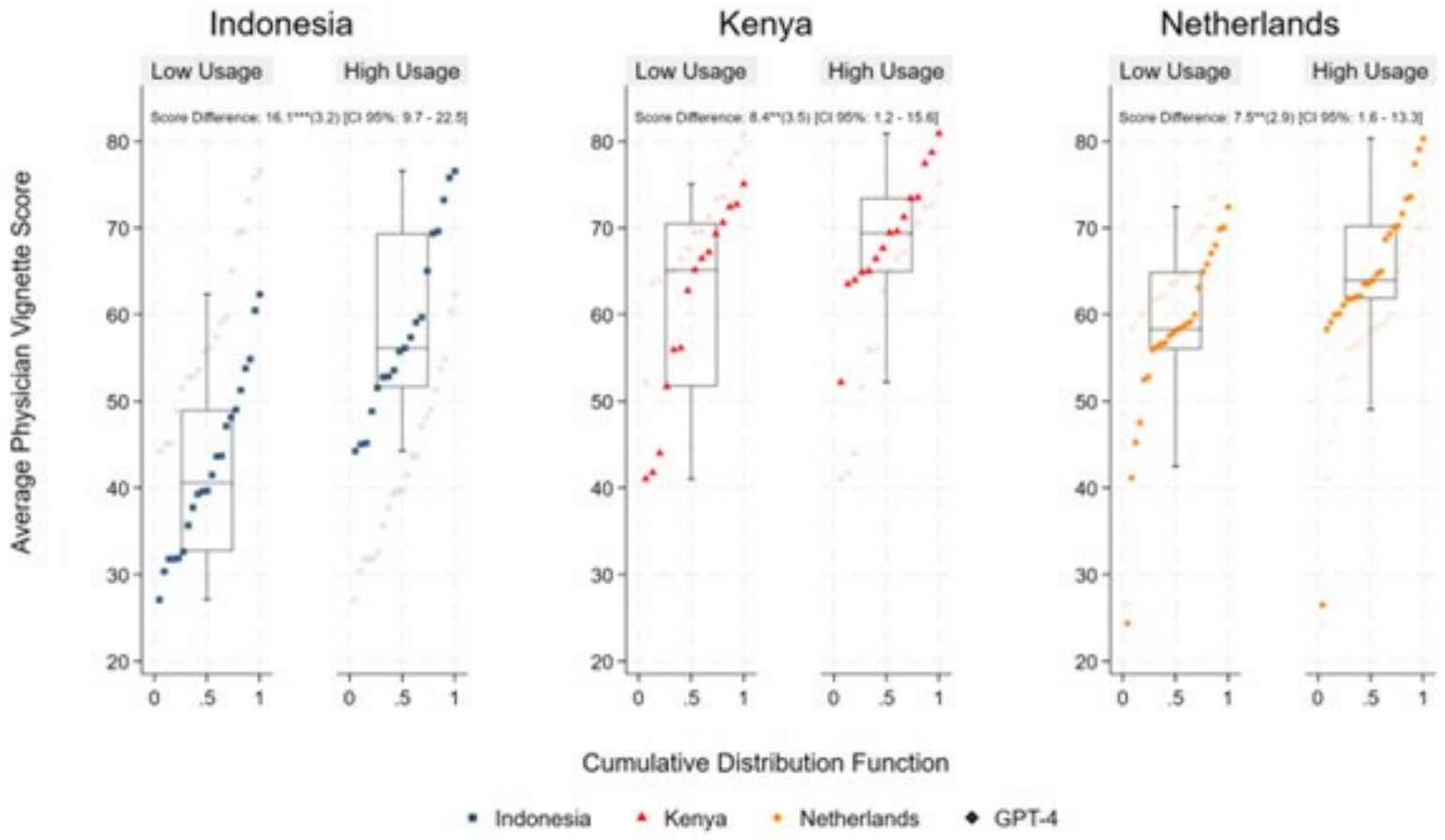
▶ Table 1: Baseline Characteristics

	Indonesia		Kenya		Netherlands	
	Intervention	Control	Intervention	Control	Intervention	Control
Career Stage						
Attending	0 (0%)	0 (0%)	0 (0%)	0 (0%)	8 (16%)	9 (16%)
Resident	41 (100%)	40 (100%)	30 (100%)	30 (100%)	42 (84%)	49 (84%)
Specialty						
Internal/Family	41 (100%)	40 (100%)	18 (60%)	9 (30%)	50 (100%)	58 (100%)
Other	41 (100%)	40 (100%)	30 (100%)	30 (100%)	50 (100%)	58 (100%)
Years Since Start of Medical Education						
Mean (SD)	12.9 (3)	13 (3.5)	11.8 (3)	11.8 (3.9)	14.6 (8.8)	13.3 (8)
Median(IQR)	13 (12-15)	13 (11.5-14)	11 (10-13)	11 (9-13)	11 (9-15)	11 (9-13)

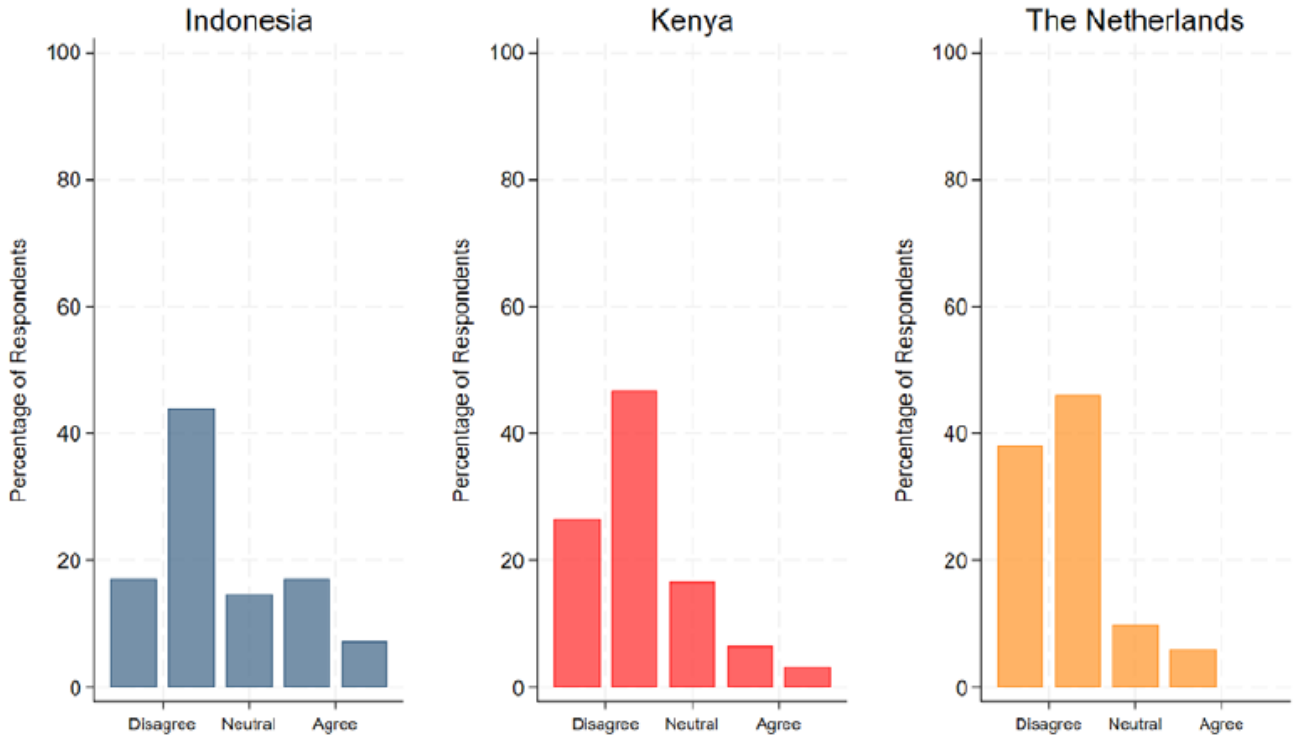
Performance results of physicians with LLM access compared with those without LLM access: Indonesia, Kenya and the Netherlands



Physician performance with LLM depending on degree of usage



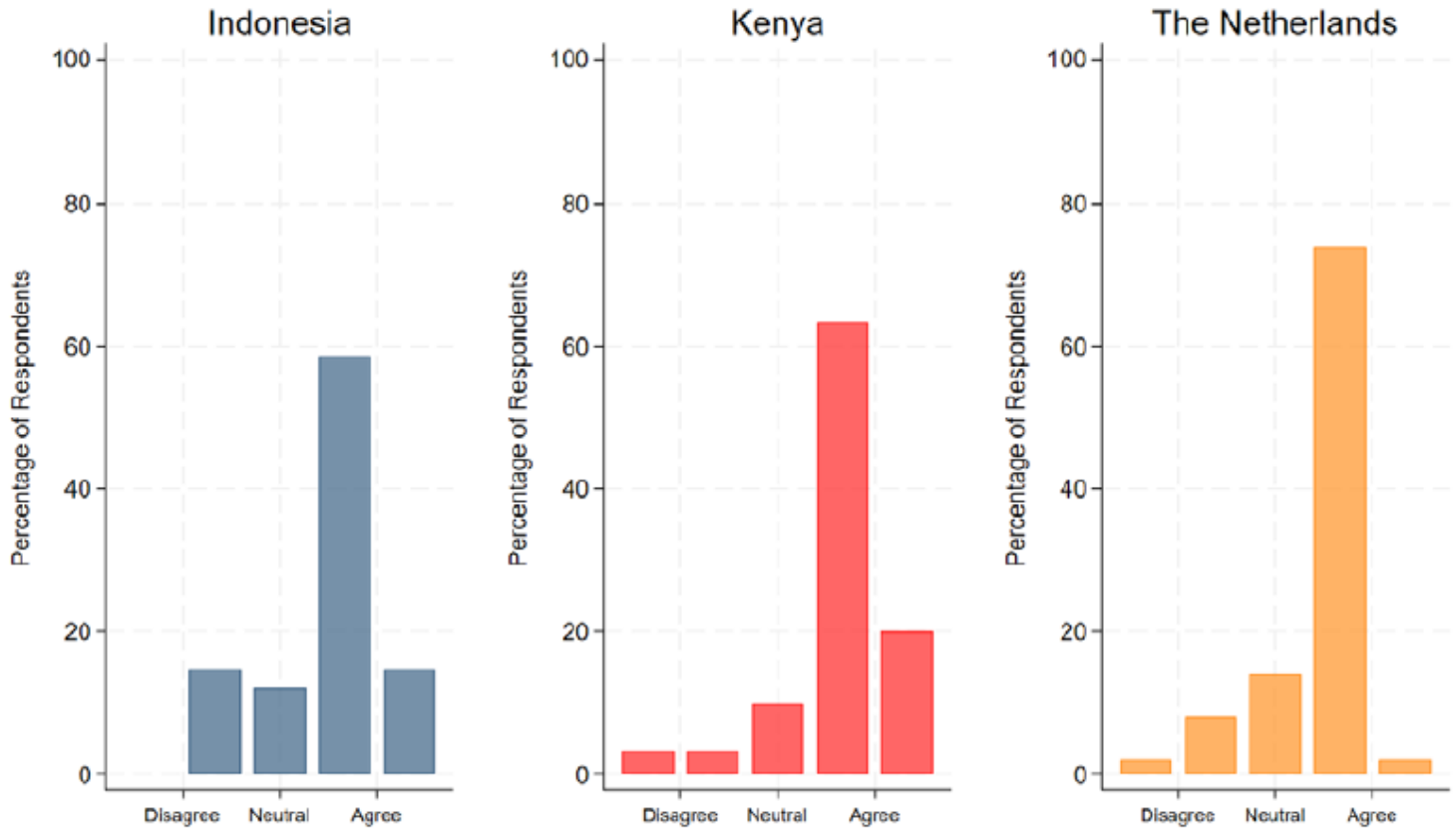
Few physicians are worried about being replaced



Response to “My occupation is at risk of being replaced by Generative AI”

"It gave me more differentials than I had in mind. I had maybe two, but the AI suggested five or six, and most of them were actually clinically reasonable."

Many feel it has the potential to make them more productive



Response to "Generative AI will make workers in my occupation more productive"

But some concerns…

Loss of credibility: "*A lot of patients expect you to be all knowing and have all the information. And when they see you referring, it's like you lose your credibility as a doctor... if we outrightly say that we are using AI, then the patient asks you, then what's your purpose? Can't I just sit at home and put all my information, and the AI tells me what to do?"* (doctor, Kenya)

Hallucinations: "Yes, it's quite helpful. But around 20% of the responses don't seem accurate, and when we cross-check manually, the answers often don't match." (doctor, Indonesia)

Automation Bias: "It made me lazy; at some point I stopped thinking and just followed the prompts. That was a bit worrying" (doctor, Kenya)

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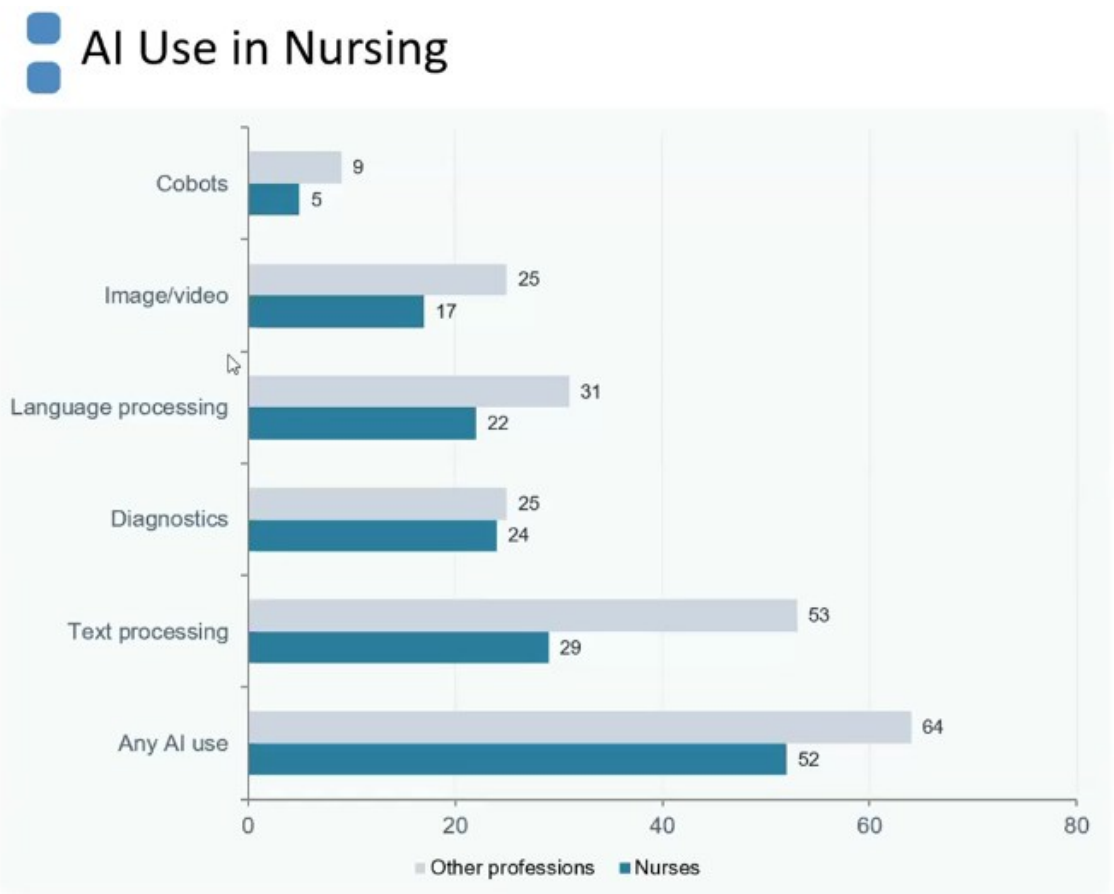
AI and Nursing

Case studies from Germany, India and S. Korea

German study (quantitative)



52% vs. 64%
Overall AI adoption gap between nurses and other professions

29% vs. 53%
Text-processing AI — the largest single-category shortfall

Intensity gap
Even when nurses use AI, frequency of use is markedly lower (mean: 0.8 vs. 1.3)

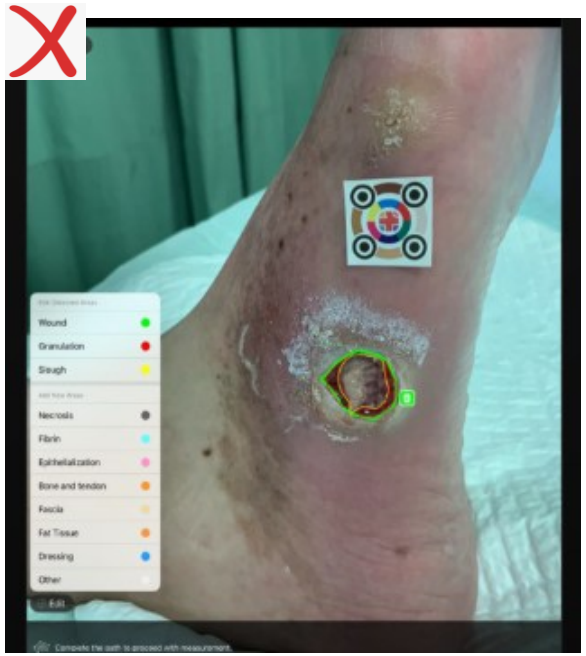
Less perceived benefits
Nurses report less benefits of AI usage at work (regarding both quality and quantity)

Bottom-up
Most AI use by nurses is self-initiated (only 32% employer-introduced)

Source: Hartwig, M., Meyer, S., Wendsche, J., Wischniewski, S. *Artificial Intelligence (AI) in the Nursing Profession in Germany*, ILO Working Paper, 2026.

South Korea case study

Digitally managed supply cart: Product designed collaboratively that worked for all parties

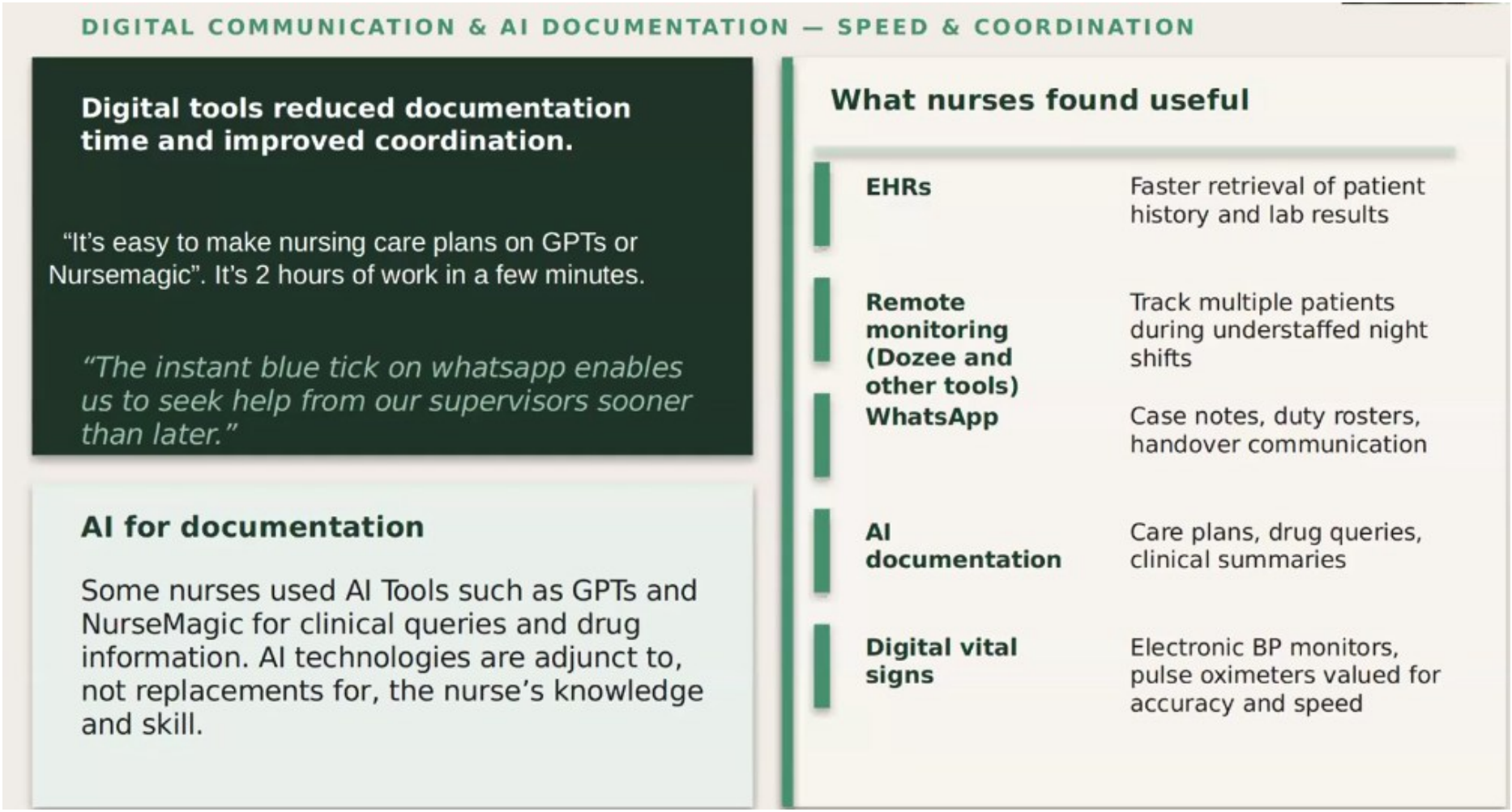


Wound assessment: Not accurate; not possible to take good photos in low light; Nurses did not trust the device and stopped using it

Nurses' repeated requests were ignored

Source: Hee Rin Lee and EunJeong Cheon, 2026.

India case study: what worked well



Source: Bansal, forthcoming.

India case study: what worked less well

REMOTE MONITORING & EHRS — WHEN THE SAME TOOLS CREATE NEW PROBLEMS

Dozee: false alarms

False alarms where a bed has both a mother and child, or where patients with femur fractures or immobilised limbs triggered inaccurate movement-related alerts.

"A nursing educator described how the tool keeps alerting even when there is no patient on the bed." — Kerala

Infrastructure: erratic rains in Kerala disrupt WiFi, causing system lags and forcing reversion to paper. Cost of separate tablets per nurse an unresolved barrier.

EHRs: doctors' work falls on nurses

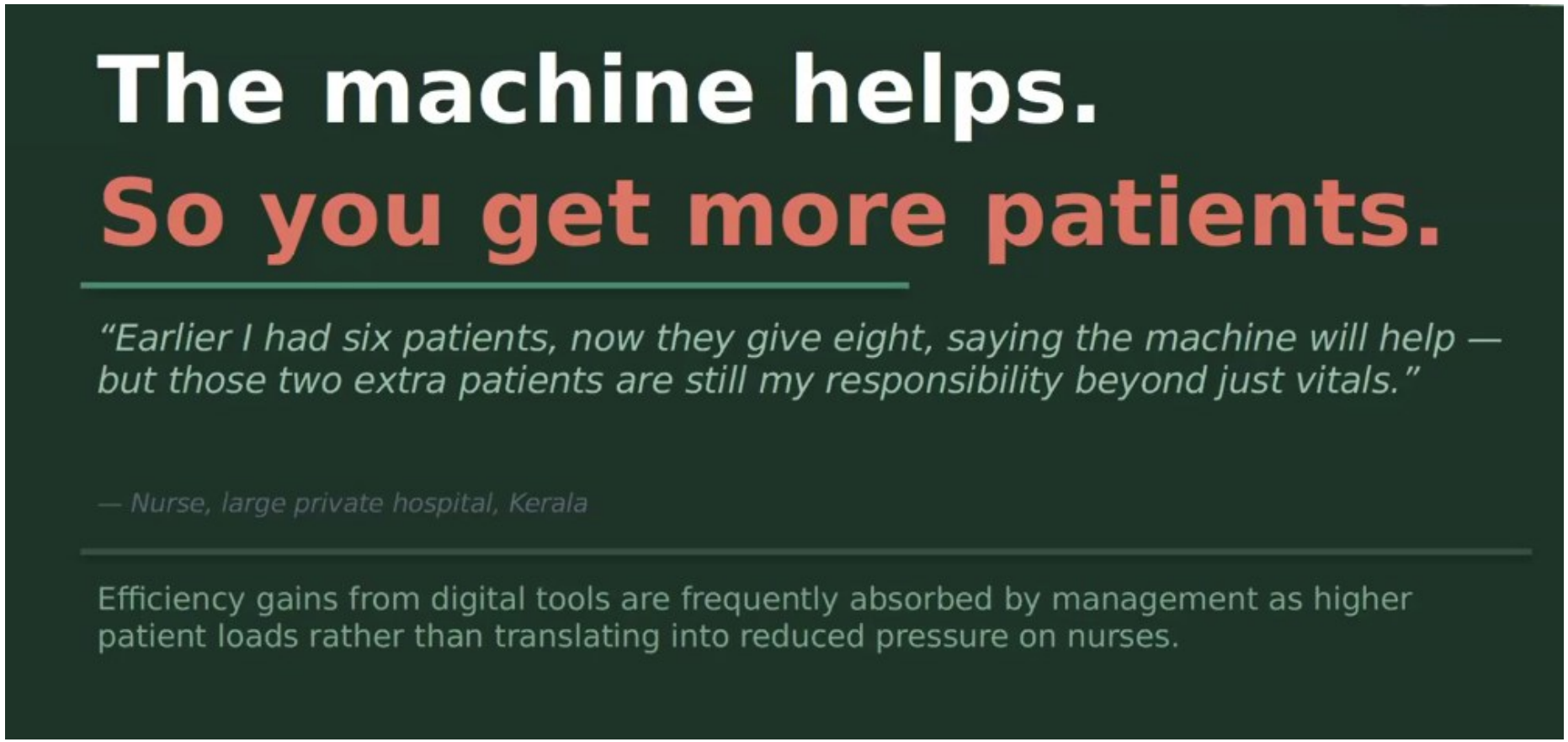
Doctors were unwilling to enter electronic records themselves — nurses were further tasked with inputting records doctors were supposed to enter, doubling their work.

"Doctors mostly use the tools since they are trained — nurses only use it for limited tasks like entering vital signs."
— Nurse, Kerala government hospital

"The server wasn't working… so we had heavy work." A recent outage forced staff to revert to paper documentation. — Nurse, Kerala

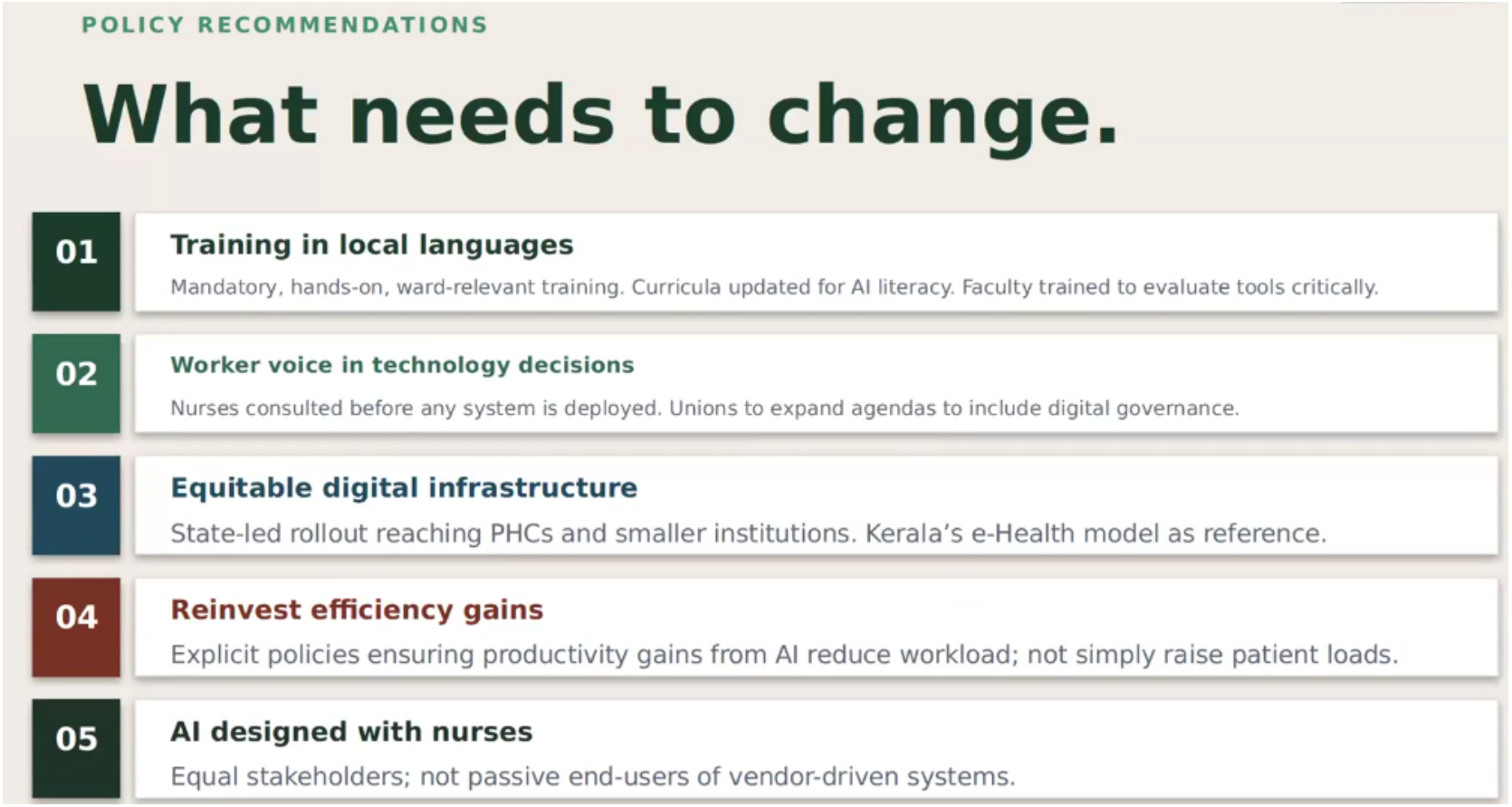
Source: Bansal, forthcoming.

India case study: unexpected outcomes



Source: Bansal, forthcoming.

India case study: Recommendations



Source: Bansal, forthcoming.

Policy considerations from ILO research

- **Not a panacea – need to weigh opportunity costs**
- **Need to invest in structured AI competency development for health workers using LLMs, and managers deploying it**
  - Safeguards against automation bias and hallucinations
- **Need for local adaptation, clinical validation and bias assessment before routine deployment**
- ***Workers need to be involved in design and governance***

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Thank you!

ilo.org/aiobservatory