Putting the Human in Healthcare AI:

A Framework for Health Worker AI Change Management

Dr. Kate Tulenko
CEO, Corvus Health

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Health Workers AI Fears

Job Replacement:

❖75% of employees are concerned that AI may lead to job obsolescence (Forbes)

❖The more workers use AI, the more they fear replacement (Forbes)

Changes in Doctor-Patient Relationships:

❖Physicians fear deterioration of the doctor-patient relationship (Li & Liu, 2024)

Ethical and Legal Concerns:

❖Patient privacy, data security, and AI making decisions without human oversight, leading to harm & legal liabilities (Li & Liu, 2024)

Professional Identity and Autonomy:

❖Erosion of professional autonomy. Changes in the work environment, Emotional impacts & Loss of professional identity

Presentation Outline

1) Health Worker AI Change Management Framework

2) Health Systems Digital Integration Framework

The Value of Frameworks in Health Workforce Management

- Health workforce management & labor markets are complex

- There is a shortage of true health workforce experts

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Steps in Health Worker AI Change Management,

1) Involve *all* health workers from the beginning
   a. AI adoption is about improving patient care and health worker job satisfaction.
   b. AI adoption is about assisting them, not replacing them.
   c. Create a team that includes all types of health workers.
   d. Any health workers made redundant will be offered other jobs in the healthcare system
   e. Communicate in meaningful ways.

2) Health workers identify their workflows that most need AI assistance

3) Health workers define the use cases & features (customizability and processing speed).

4) IT team identifies existing AI applications for health workers to pilot.

5) IT team ensures the AI application will integrate with your existing systems.

Health Worker AI Use Cases

1. Patient triage
2. Collecting patient history and data
3. Differential diagnosis assistance
4. Care planning
5. Patient education
6. Answering patients '& families' questions
7. Discharge planning
8. Translate for patients
9. Clinical decision support
10. Early disease detection
11. Reducing administrative burden
12. Predictive analytics
13. Remote monitoring
14. Staff & Bed Optimizing allocation
15. Personalized medicine
16. Surgical assistance
17. Reducing diagnostic errors
18. Automating routine tasks
19. Mental health support
20. Enrolling patients in clinical trials
21. Enhancing medical training
22. Monitoring and reducing burnout
23. Improving infection control
24. Enhancing teamwork and communication

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Steps in Health Worker AI Change Management, 2 of 2

6) Health Workers in different settings pilot the software, integrating it into their workflows. E.g.: A pediatrics outpatient clinic, a hospital general medicine floor, & the ER.

7) Based on the feedback, the AI application is either rejected or is accepted & adapted to better meet needs.

8) Training: Evidence-based design; Paid, Follow-up

9) Implementation: 24/7 Support. Champions & Experts

Measuring AI Integration Success

Tradition Measures

1. Revenues/Profit
2. Patient Volume
3. Quality of Care
4. Patient Outcomes

Proposed Measures

1. Patient Satisfaction
2. Patient Compliance
3. Health Worker Job Satisfaction
4. Health Worker Retention

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Health Worker Life Cycle

1) **Data/Analysis/Research/NHWA**
2) **Policy/Planning/Regulation** (health workforce unit, communications, stakeholders, gender, climate & sustainability)
3) **Financing (for all the elements)**
4) **Professional Associations & Unions (voice & engagement)**
5) **Education (PSE, PGE, CPD, IST)**
6) **Recruitment & Distribution**
7) **Health Workforce Management (traditional HR activities)**
8) **Health Workforce Performance (contributors to quality & productivity)**
9) **Burnout/Retention/Retirement**
10) **Managed Migration**

Health Workforce Life Cycle Domain	Digital Tools to Improve Access to & Performance of the Health Workforce
Data/Analysis/ Research/NHWA	• National Health Workforce accounts (NHWA) • iHRIS • M&E software • WISN (Workload Indicators of Staffing Norms)
Planning/Policy/ Regulation	• M&E software to track & evaluate policy & regulation implementation • CRM Software
Financing	• Mobile payments to health workers • Financial fraud detection software
Professional Associations & Unions	• Up to date association websites • Health workforce digital communities (listservs, WhatsApp groups, Facebook Groups) • Social media outreach to heath workers
Education (PSE, PGE, CPD, IST)	• Integrating the use of digital tools across the curriculum • Adding modules in all education about telemedicine , how to work with digital health tools, & the dangers of digital tools (over-reliance, loss of critical thinking, errors, etc.) • Distance education • Virtual reality & simulation • Learner-adaptive education driven by Artificial intelligence (education tailored to the

Health Workforce Life Cycle Element	Digital Tools to Improve Access to & Performance of the Health Workforce
Recruitment & Distribution	• Free electronic health sector job boards • Job application management systems for faster and fairer recruitment
Health Workforce Management (classic HR)	• Personnel management software • Shift scheduling software • Leave scheduling software
Health Workforce Performance	• Digital job aids for all types of health workers • Across all workflows • Throughout the patient journey
Burnout/Retention/ Retirement	• Access to the internet to reduce professional & personal isolation • Digital apps for health worker mental health • Digital apps for mentoring
Managed Migration	• Systems to better track migrating health workers to facilitate HIC payments or health worker return • Cross-border Telemedicine (virtual migration) • Harnessing of remittances

Questions?

ktulenko@CorvusHealth.com

+1 202 460 9919