

Improving Patient Outcomes through Clinical Integration in Digital Infrastructure Planning



CCHF INNOVATING HEALTH ENVIRONMENTS

November 29, 2023

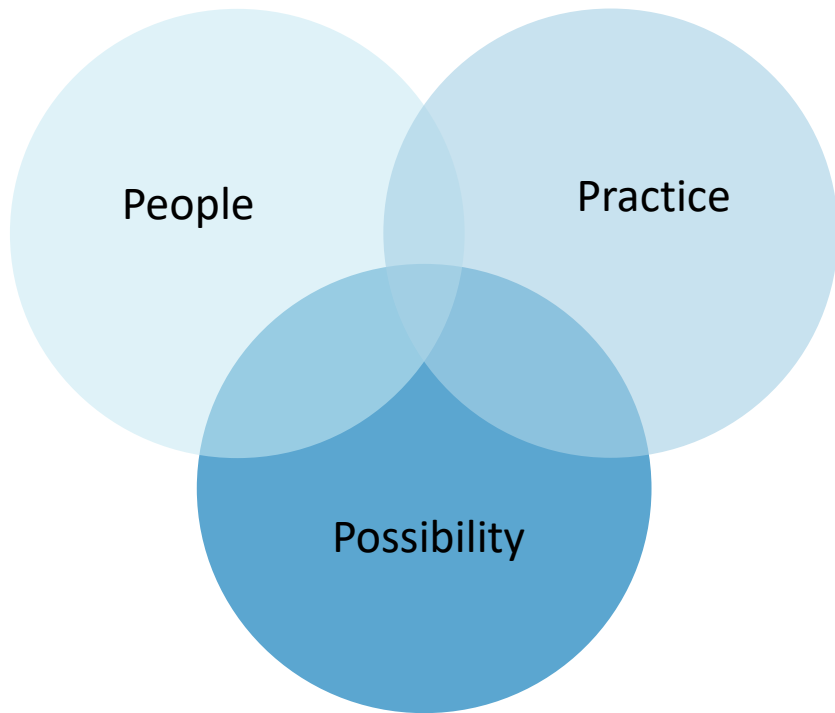


About the presenter



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Angus Connect

About Angus Connect





Challenges We Face in Healthcare

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Health Human Resource Shortage

Predicted shortage of **117,600** nurses in Canada by 2030 (CFNU, 2022)

1/3rd of Registered Nurses nearing retirement (CFNU, 2022)

32,295 Vacant nursing positions (CFNU, 2022)

Lack of Innovation



What's Stopping Us?

Existing **policies & procedures**

Lack of Funding for Innovation programs

Competing interests of many many stakeholders

Challenges We Face in Healthcare



Clinician Burnout

63% of nurses report experiencing some symptoms of burnout (CFNU, 2022)

Nurses & Allied Health - average absentee rate of **19 days/year** (Statcan, 2023)

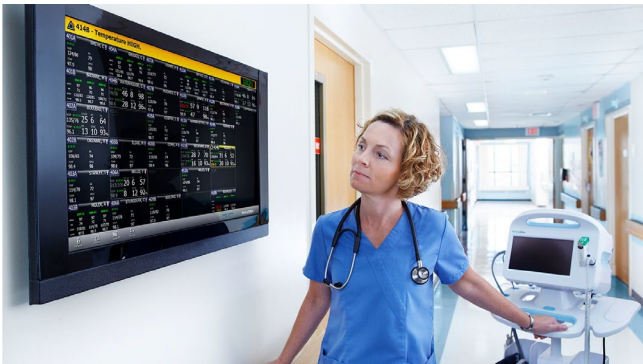
55% of nurses report burnout as top reason they consider leaving their job (Statcan, 2023)

Creative Solutions to Healthcare's Biggest Challenges



Technology Opportunities

Meaningful Information to Point of Care
Information and Alarm Management

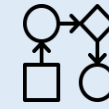


Innovative Care Delivery
In-room Virtual Care

Alternative Methods for Low Acuity
Virtual Care Pods
Continuous Monitoring

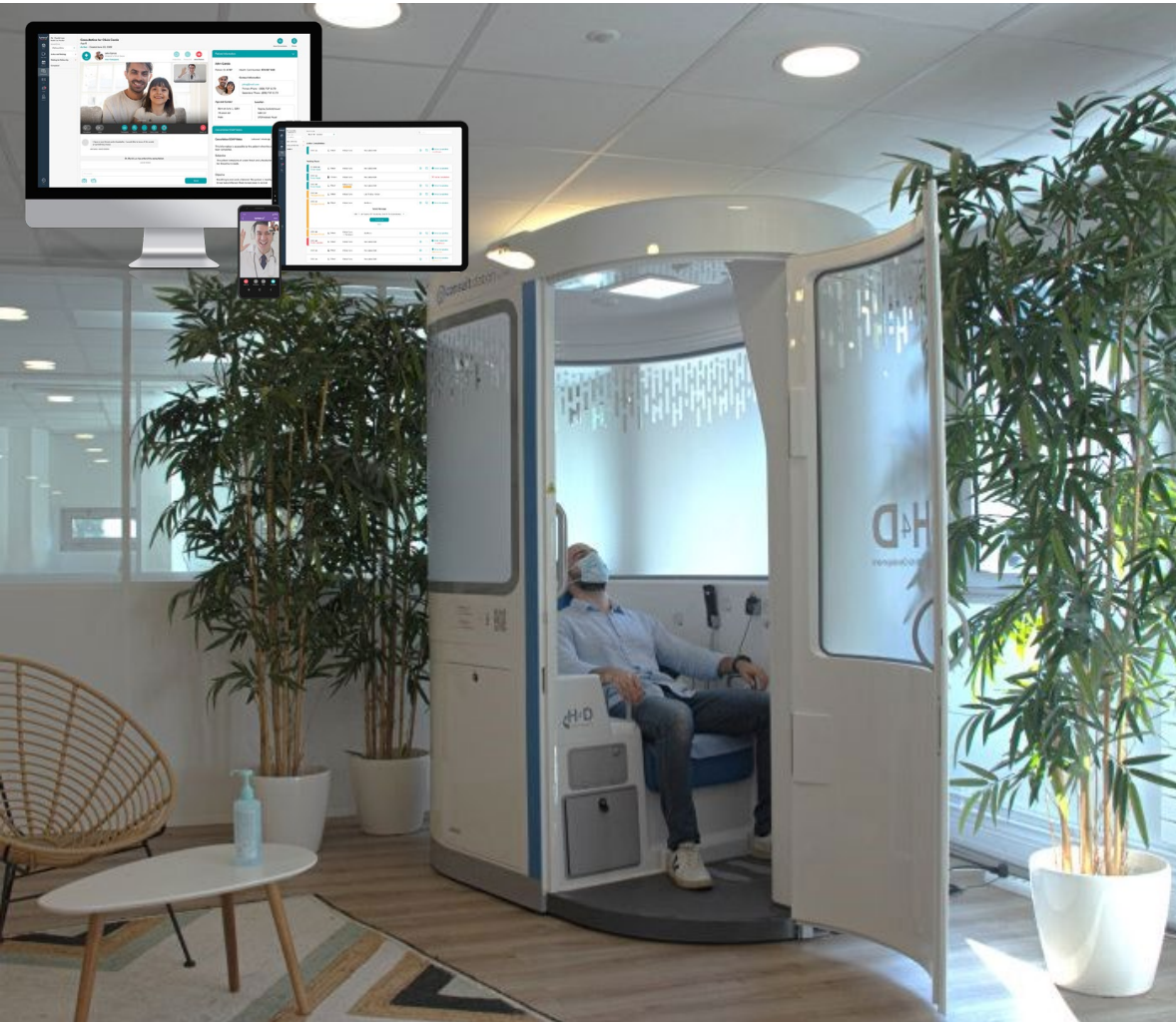
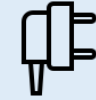
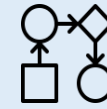


Information and Alarm Overload



- Many opportunities for information at the point of care:
 - Dashboards
 - Mobile alerts
 - Operations/command centres
- User engagement options analysis based on requirements to ensure the right method of communication, and amount of information to avoid alert/information overload
- Plan for dashboards in locations and within line of site based on location of viewing staff and with privacy considerations
- Ensuring appropriate quantity of dashboards to support work functions

Remote Virtual Care Pods



Saskatchewan

- Cowessess First Nation has introduced Virtual Health Pods to improve access to care in remote Saskatchewan
- Pod is equipped with cameras, microphone and touchscreen
- Patients enter and can access the care of a doctor live within minutes

UK National Health Service

- Focus on reducing pressure on overloaded Emergency departments
- Located in Community Centres and Emergency departments using teleconsultations and autonomous check-ups
 - 50% reduction in wait time for eligible patients
 - Nurses able to save 1 hr/day in valuable time

Continuous Monitoring

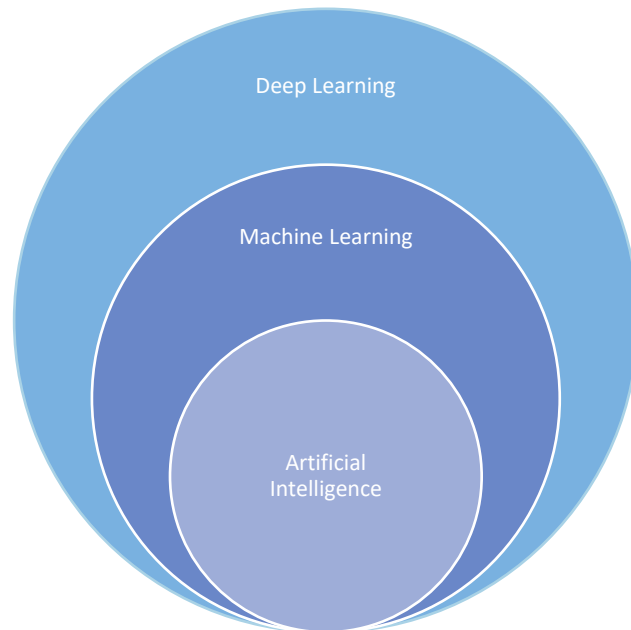


Beds aren't just for sleeping

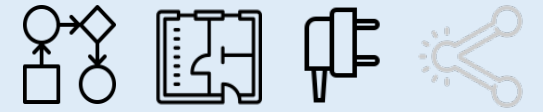
- Hill-rom smart beds
- Respiratory and heart rate
- Currently in Hospitals, will be moving to home care
- Coming soon: fertility monitoring

Watches aren't just for telling the time

- The ability to interface with consumer grade wearables is under development
- An Australian study detected respiratory and cardiac events accurately supporting the triage process



In-Room Virtual Care



Virtual Health and Sitters

- Cortellucci Vaughan Hospital using in-room cameras for specialty consults or room observation
- UHN created a program called Halo which has expanded to Alberta, Manitoba and Newfoundland for patient sitters
 - Program has one observer for 8 patients
 - Name, site, floor, room number and call information overlaid on video

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95



/min

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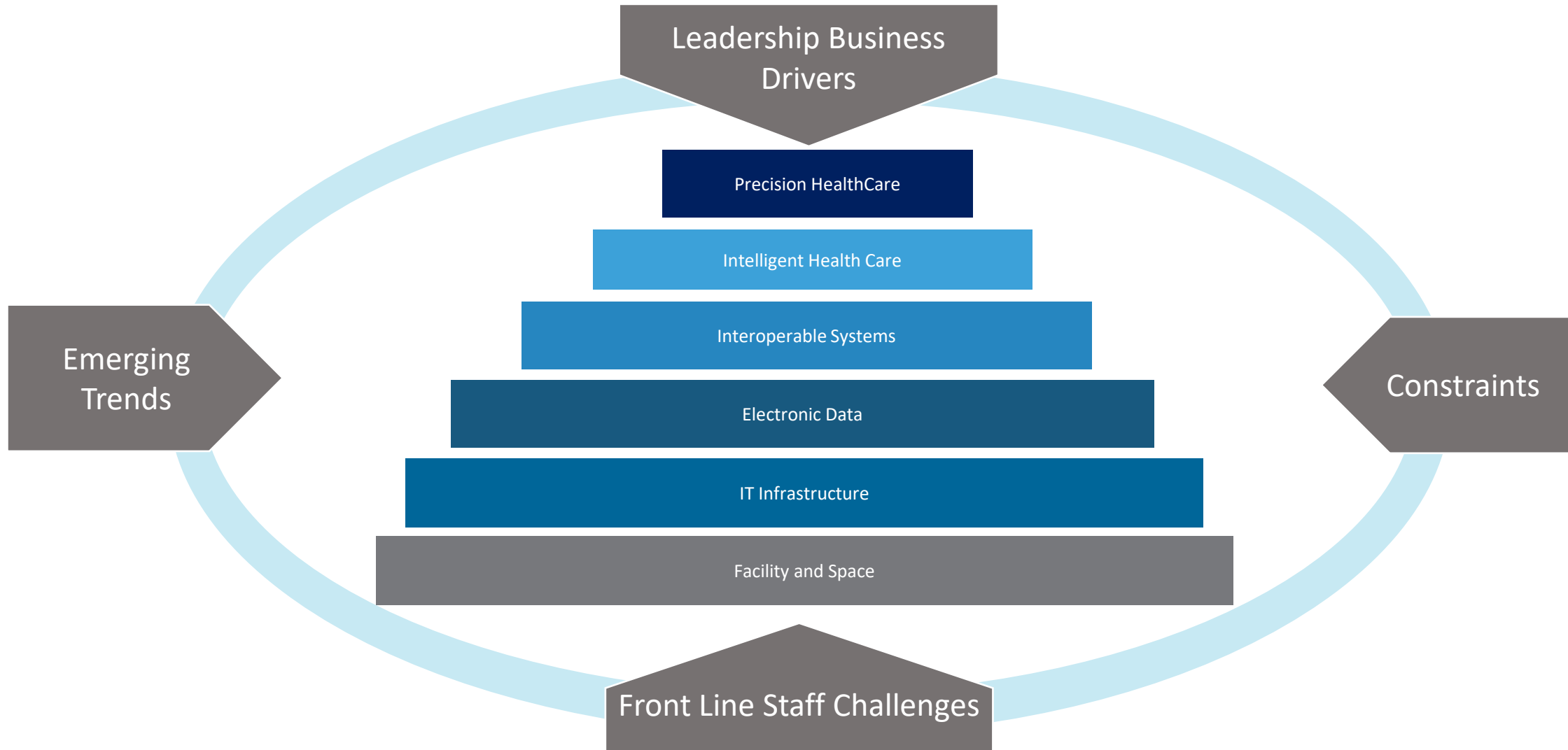
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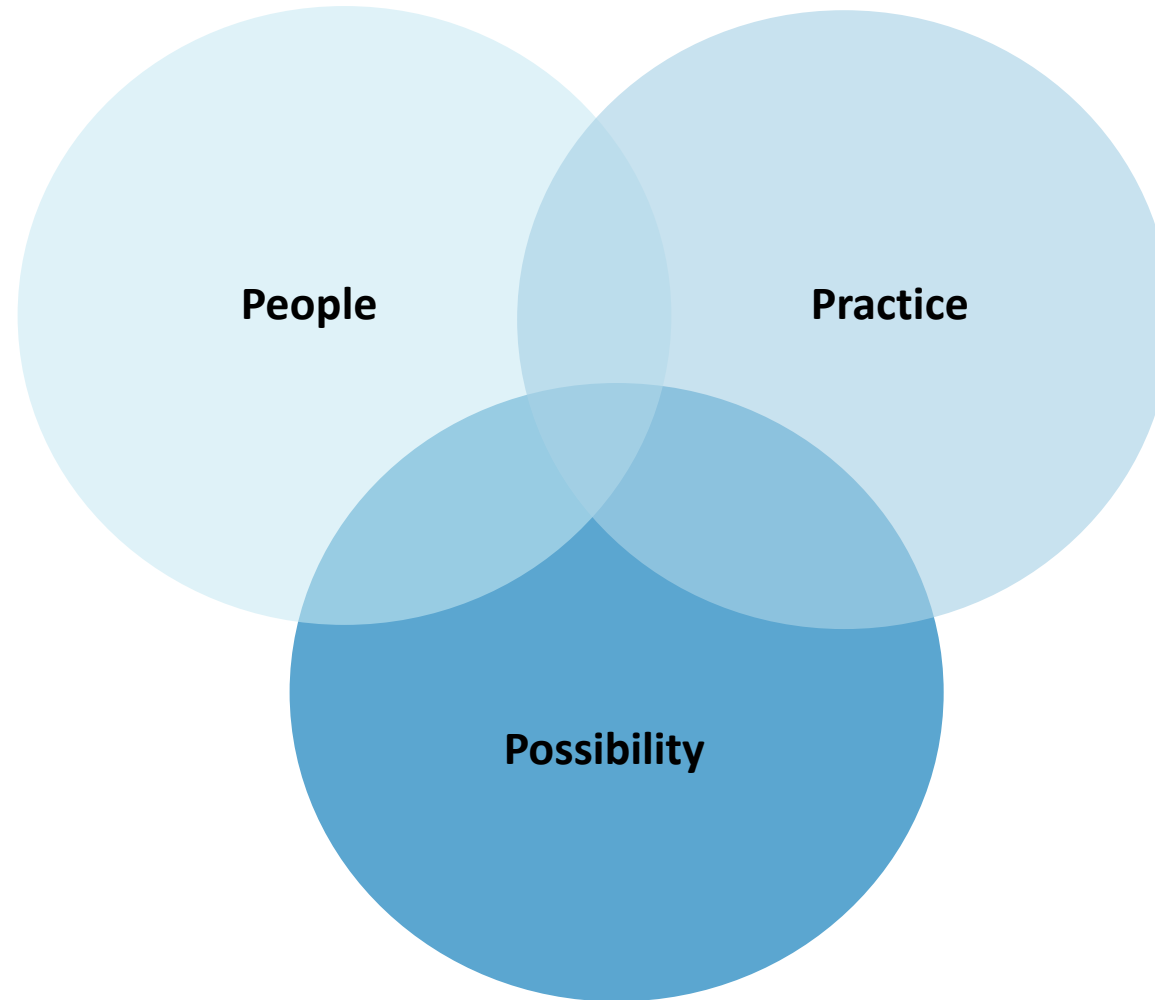
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Front Line Staff are a Key Component to a Digital Transformation



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Thank you!

Q&A