Let's Talk Informatics
Leaders at the Intersection of Clinical Service and Technology: The role of Chief Nursing Information Officer (CNIO) and Chief Medical Information Officer (CMIO) in high performing health care organizations

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One Person
One Experience

nova scotia health

IWK Health

Acknowledgement

We acknowledge we are gathered today
in Mi'kma'ki (*Mig-*maw*-gee), the traditional ancestral
unceded territory of the Mi'kmaq (*Mig-**maw**) people.

Informatics

Informatics utilizes health information and health care technology to enable patients to receive best treatment and best outcome possible.

Let's Talk Informatics Objectives

This series is designed to enable participants to:

- Identify knowledge and skills healthcare providers need in order to use information now, and in the future.

- Prepare healthcare providers through an introduction to concepts and experiences in Informatics.

- Acquire knowledge to remain current by becoming familiar with new trends, terminology, studies, data and news.

- Collaborate with a network of colleagues to establishing connections with leaders who can provide advice on business issues, best-practice and knowledge sharing.
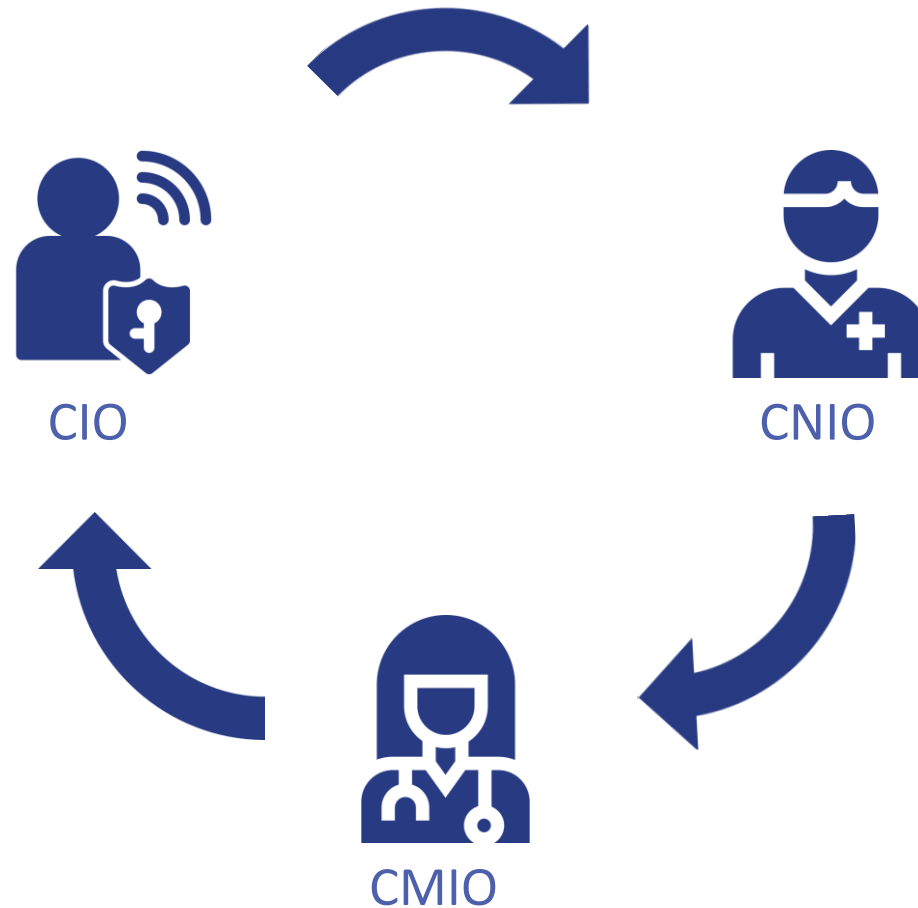
Session Specific Objectives

During this session, we will:

- Define the roles of CNIO and CMIO

- Review the evidence related to the unique value provided by CNIO and CMIO roles

- Discuss the key strategic priorities for Nova Scotia's CNIO and CMIO

Informatics Co-Leadership

CIO

CNIO

CMIO

Vision

Governance

Measurement

Susan Hall. *Leverage CIO, CNIO and CMIO Collaboration to Advance Digital Care Delivery*. Gartner, Inc., Sept 2019.

Chief Nursing Information Officer (CNIO)

What is a CNIO?

Carla Swindle and Victoria Bradley. *The Newest O in the C-Suite: CNIO.* Nurse Leader, June 2010.

CNIO and CNO

The CNIO and CNO must work closely together to ensure the introduction and adoption of technological solutions is aligned with the goals of advancing nursing practice that the CNO has set out for the organization.

This requires a significant amount of collaboration between the two roles to ensure clinical practice changes are reflected in, and central to the introduction of new systems.

Chief Medical Information Officer (CMIO)

What makes a good CMIO?

- Physician with broad **clinical experience** spanning practice environments

- Key **convener**, bringing diverse clinicians to the table to understand problems and identify solutions

- Customer service orientation focused on **provider experience** of technology

- Strong **communicator** bridging gap between frontline providers and informatics leadership

- **Technology literate**, often with enhanced training in health informatics

- **Creative thinker**, focused on future orientation and technology-supported care transformation

Key organizational roles

Clinician experience at the forefront

- Clinical workflow as king

- Balance of desire for data/documentation against need to preserve clinical efficiency and effectiveness

- Bringing clinicians together to define problems and map potential solutions

- Maintaining optimal clinical care as central focus of all IT implementations

- Supporting socialization of projects as "**CLINICAL**, not IT"

- Ensuring support services are clinician relevant
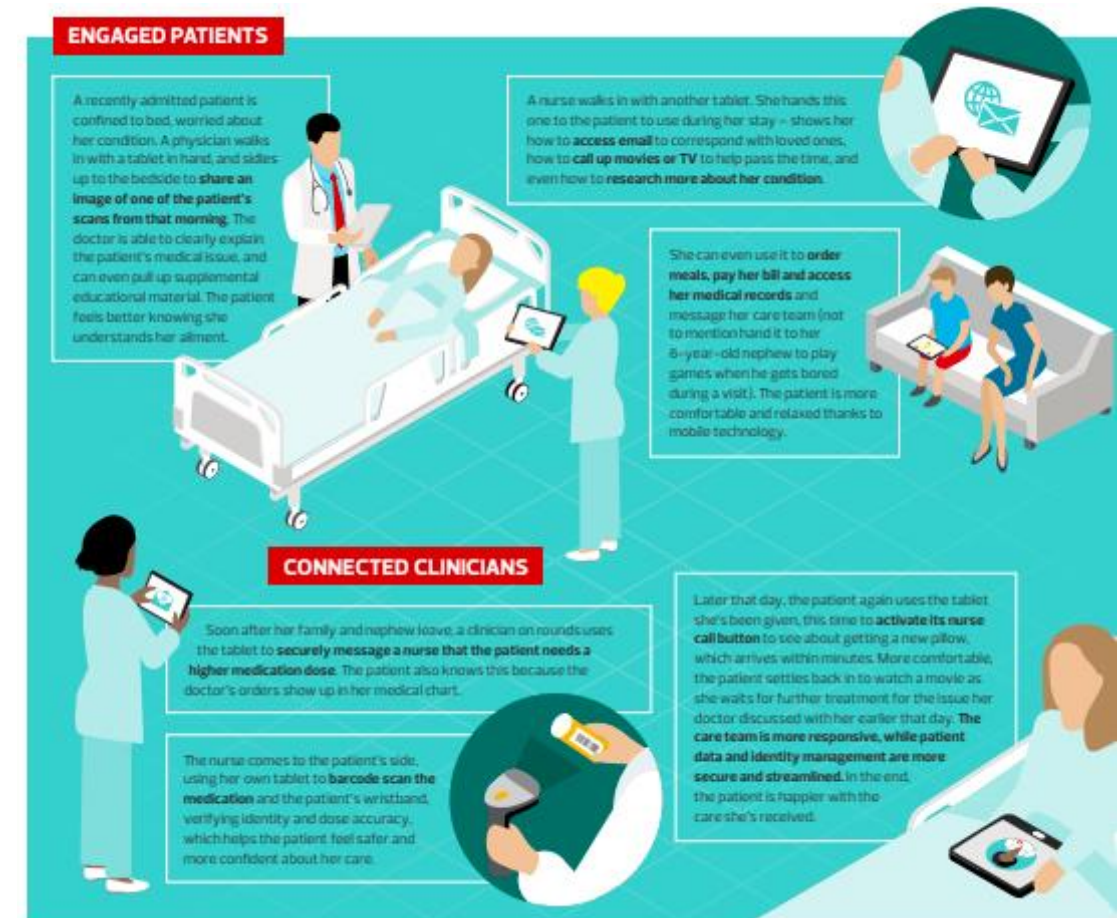
Clinical standardization

- Driving for standardized approach to all clinical care delivery

- Integration of clinical knowledge with realities of modern Clinical Information Systems (CIS) and their functionalities

- Support standards development and technology integration that drive care improvement while improving adoption

- Ensuring standards also drive measurement and continuous quality improvement

CIS implementation

- Key leaders to support successful clinical information system (CIS) implementation

- *Translation*: defining technology-enabled workflows

- *Support*: providing assistance and guidance to clinicians during difficult transitions

- *Clinical view*: ensuring documentation, care standards, practice changes, and governance reflect clinical realities

- *Designers*: ensuring modules and their functionality suit clinician needs and meet organizational objectives

Care virtualization

- Identifying opportunities where care delivery can evolve to better suit diverse patient and clinician needs

- Championing virtual care as one modality of care in spectrum of options, best defined by provider/patient needs and expectations

- Incorporating most appropriate modality of care into all clinical standards discussions

- Ensuring new technologies support seamless virtual care delivery

Change leadership

- Socialize extreme pace of change required with clinical technology

- Champion change – guide clinicians on how to optimize new functionalities to ensure best patient care and provider experience

- Support key clinical change initiatives:
  - Care virtualization
  - Smart pumps
  - Automated pharmacy dispensing units
  - Clinical communication tools
  - Integration of bedside devices

Data and metrics

- Identify key opportunities where data extraction from clinical information systems can drive care transformation

- Identify opportunities to flag high needs patients, create smart tools for risk recognition

- Bring together clinicians at forefront of research to ensure technology supports need for continuous data to drive improvement

AI in healthcare

- Focus on futurism – opportunity for care transformation through computer-based algorithms, machine learning, and eventually artificial intelligence

- Championing key opportunities where evidence-based AI deployment can enhance clinician knowledge and skill

- Identifying potential for AI-supported practices to improve key organizational functions: flow prediction, staffing optimization, pattern recognition to flag public health events early on

Vendor collaboration

- Knowledge and insight regarding evolving vendor environment producing key technologies to support patient care

- Building connections with established and emerging vendors with newer and better tools

- Helping define processes that balance need to have access to emerging technologies with need to ensure privacy, fairness, and sustainability

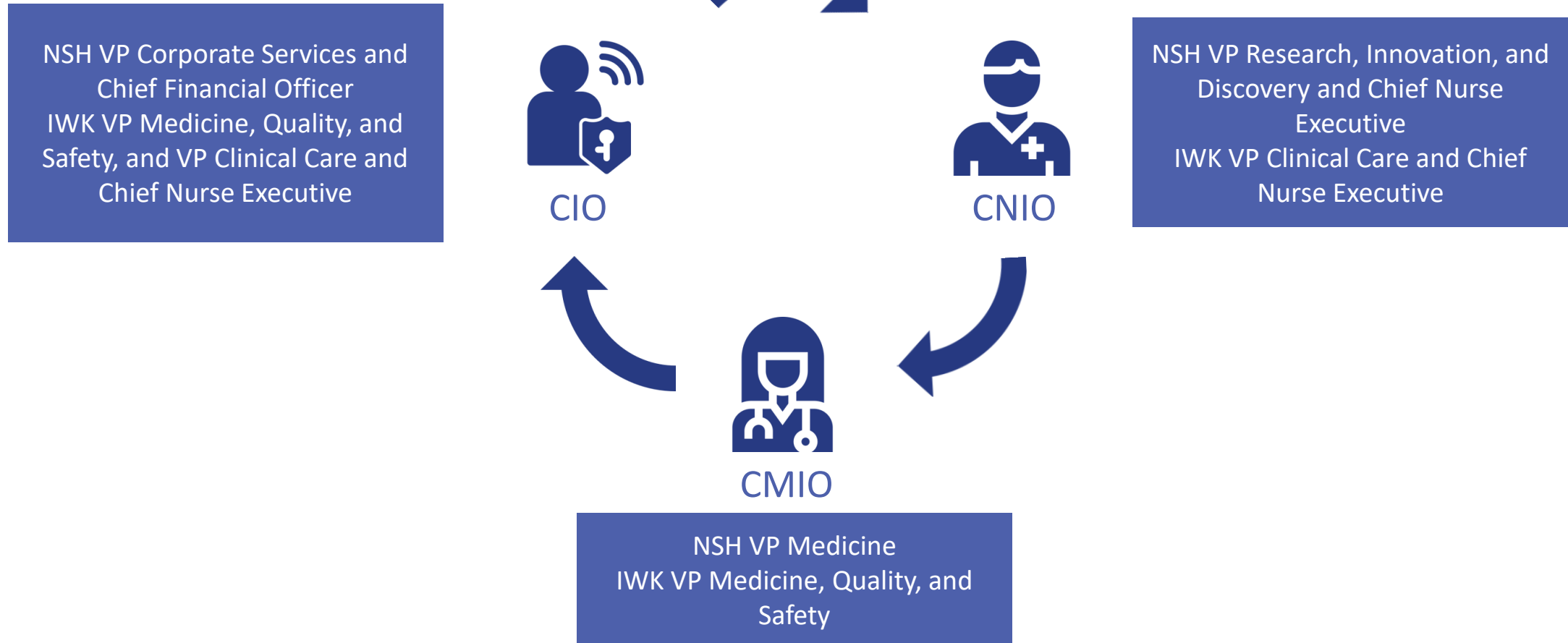- Ensuring vendor offerings reflect functional and user needs of clinicians

NSH/IWK
CNIO and CMIO

NSH/IWK Informatics Co-Leadership

NSH VP Corporate Services and Chief Financial Officer
IWK VP Medicine, Quality, and Safety, and VP Clinical Care and Chief Nurse Executive

CIO

NSH VP Research, Innovation, and Discovery and Chief Nurse Executive
IWK VP Clinical Care and Chief Nurse Executive

CNIO

CMIO

NSH VP Medicine
IWK VP Medicine, Quality, and Safety

Current NSH/IWK CNIO & CMIO Priorities

Provincial Integrated Clinical Information System

Clinical standardization

Virtual care delivery

Technology supported provider communication

Let's Talk Informatics:
Continuing Education recognition

- **Digital Health Canada**: participants can claim **1 CE hour** for each presentation attended

- **College of Family Physicians of Canada** and the Nova Scotia Chapter: participants can claim **1 Mainpro+ credit** by providing content aimed at improving computer skills as applied to learning and access to information

- The **Canadian College of Health Information Management**: participants who are professional members of Canada's health information management association – CHIMA can claim **1 CPE credit** per hour

Thank You

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