A New Framework for Generating Clinical Requirements for eHealth Solutions
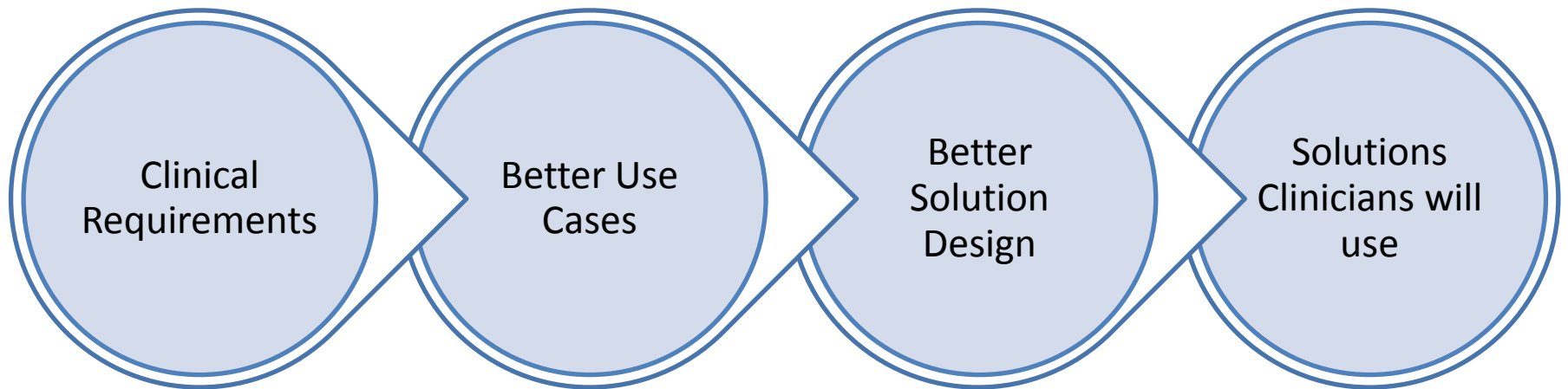
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Objectives

1. To review a new framework for generating clinical requirements.

2. To share the results of a number of national 2 day workshops that contributed to the testing and development of the framework

3. To encourage application of the framework to clinical information system initiatives to increase interoperability by building solutions clinicians will use.

Background

- 2014 strategy to accelerate interoperability among clinical systems and leverage the investments in EHR infrastructure

- Interoperability a key theme

- There is often a mismatch between what clinicians say they need a system to do and how it gets designed and built.

- Interoperability is both data exchange and use of that data

- Is there a common set of clinical requirements that help to accelerate interoperability and build solutions clinicians will use?

Building solutions clinicians will use

Clinical Requirements → Better Use Cases → Better Solution Design → Solutions Clinicians will use

Study Approach & Results

Literature and Project review

Key themes	Lessons learned

↓

Synthesized the findings into a set of Emerging Principles

Conducted small group testing	Revision and edits

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Conducted National Clinical Requirement Workshops

Test Principles	Gather Clinical Requirements

↓

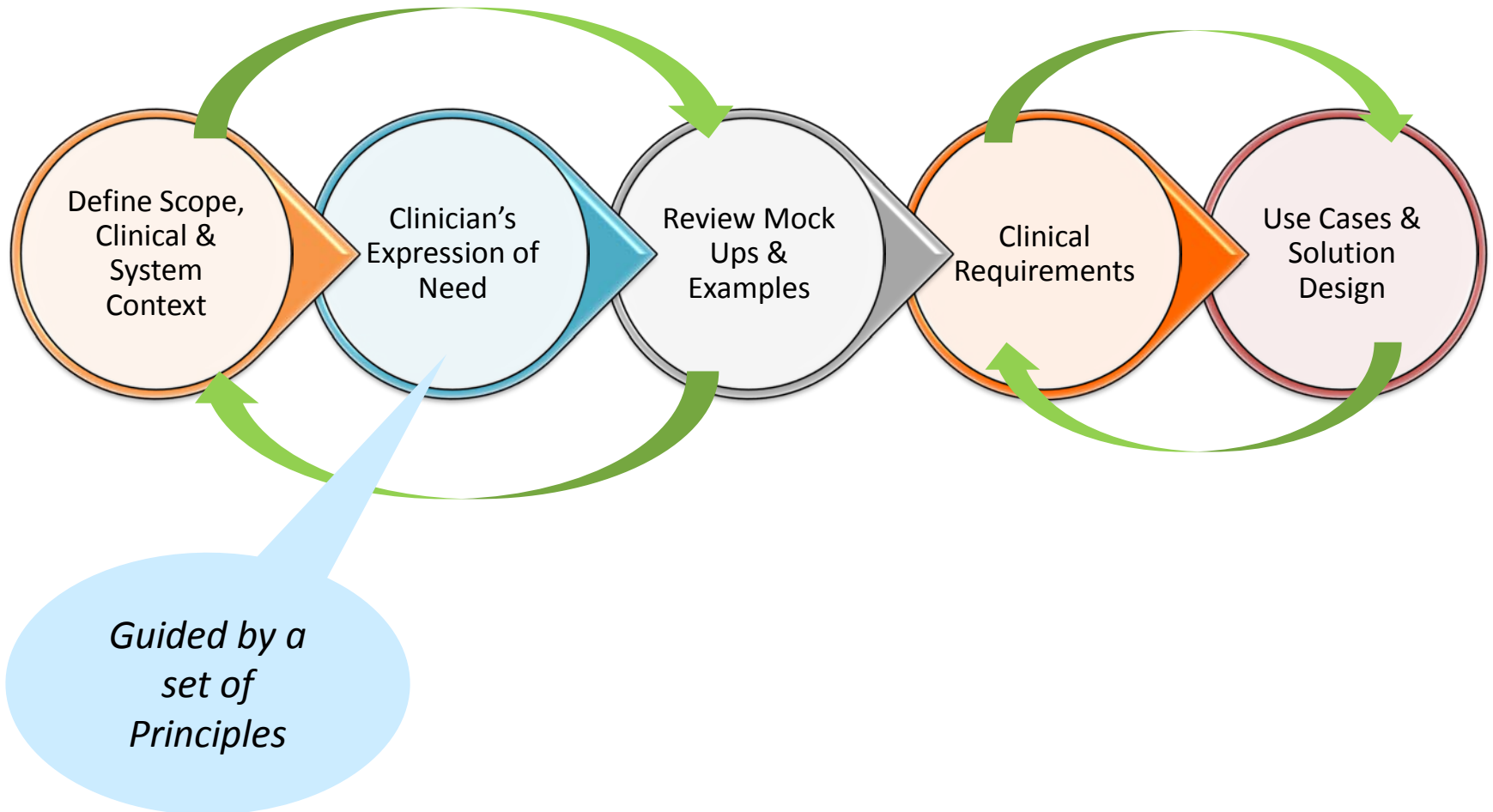**Enabling Reference Framework to Accelerate Interoperability**

10 Key Principles	Workshop Themes

Clinical Requirements Report

- Six cross country workshops
- Engaged over 120 clinical end users
- Conceptual solution scope
  - Immunization (EMR to IIS)
  - Discharge MedRec (Hospital to EMR, EHR, DIS)
  - ePrescribing (EMR to Community Pharmacies)
  - Provider to Provider (EMR to EMR & Community)
  - Cross Enterprise Remote Image Reading (PACs to PACs)
  - Admit MedRec (DIS to Hospital)

- Posted documents are available at

https://ic.infoway-inforoute.ca/en/collaboration/communities/clinical-requirements

The Workshop Approach

Define Scope, Clinical & System Context → Clinician's Expression of Need → Review Mock Ups & Examples → Clinical Requirements → Use Cases & Solution Design

Guided by a set of Principles

Clinical Interoperability Principles

1. I need clinically relevant information about my patient.

2. I need to know the data is trustworthy and secure and who it is from

3. I need to receive and send notifications about my patients and transitions of care.

4. I need to share and view relevant patient information with others in the circle of care including the patient and family .

5. I need available clinical data to be aggregated and assembled together with other clinically relevant data, to support care delivery and health system use

Clinical Interoperability Principles

6. I need information to be consistent in its meaning

7. I need information access to be easy, intuitive, supporting my workflow, with minimal steps and clicks

8. I need this information to be available to me when and where I need it

9. I need to be in control of how I use a system and how I choose to interact with data

10. I need clinical decision support tools available to me at the time of decision making (Make it easy to do the right thing and hard to do the wrong thing)

Clinical Requirements Documents

- Immunization Interoperability

- Discharge from Acute Care MedRec

- ePrescribing

- Admit to Acute Care MedRec

- Provider to Provider Communication

- Cross Enterprise Remote Image Reading

https://ic.infoway-inforoute.ca/en/collaboration/communities/clinical-requirements

Themes from the Workshops

A. Improved Patient Safety and Quality of Care

B. Policy, Leadership and Legislation Barriers

C. Usability & Functionality

D. Data Availability in Clinical Context

E. Data Quality, Standardization and Codification

F. Decision Support at the Point of Care

G. Patient and Care Giver Access

In Conclusion

- The Clinical Interoperability Principles are a useful framework, and serve as a checklist to guide solution development.

- Key Theme - Patient Safety and Improved Quality of care

- Key Theme – Policy, Leadership, and Legislation Barriers

- Learn from Success

- Collective effort needed to move faster, be leaner, more agile and remove the barriers to progress

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Thank you