

One Patient, One Record

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CMIO, Interior Health Authority

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- CMIO & Executive Medical Director, Interior Health Authority
- Primary care physician, engineering PhD in AI
- Informatics experience over 20 years
- IMIT Standing Committee, Health Information Standards Standing Committee, co-chair Information Privacy and Security Standing Committee, Joint Collaborative Committees IMIT Clinical Advisory Group, EMR Working Group, Clinical Oversight Committee; Canada Health Infoway's Digital Health Alliance Steering Committee

Presenter Disclosure

Presenter: Douglas Kingsford

Relationships with commercial interests:

- No current affiliation with any commercial organization.
- Relationships with government organizations as per previous slide.
- Member of Health Data Coalition Technical Advisory Group.
- Created AI search engine for finding the optimal provider for referral, and for optimizing referral form content. Not offered commercially in Canada, and outside scope of this presentation.

Agenda

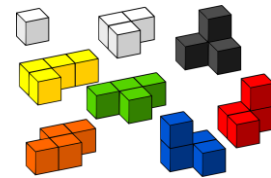
1. Introduction –
One Record vs One Virtual Record
2. Where are we now?
3. What's the vision?
4. What's the near-term roadmap?
5. Conclusions

Current Context

- Many siloed systems across the sector.
Can't see each other's records, even within teams.
- Lots of faxing, phoning, mail, text, email.
- Patients can see little; few virtual interaction options.
- Uncertainty around consent, permission, agreements for data sharing.
- Billing model doesn't well support team-based care, new electronic interactions.



Current Context - Tech



- >95% EMR uptake (but no provincial oversight)
- Large hospital IT system projects underway
- Distribution of lab/DI results, reports (hub-and-spoke)
- 2-way messaging *within* some vendors, but not *between*
- Regional patient portals – Excelleris, IHA MyHealthPortal, RelayHealth, Telus PHR, KindredPHR, individual EMRs
- Regional provider portals – CareConnect, UCI, Excelleris
- Remote login to hospital systems – Cerner, Meditech
- Meds: PharmaNet (has limitations, not integrated)
- Public Health: Panorama, PARIS, MOIS
- Emerging QI tooling – PSP, HDC, Telus

Who is working on this?

Collaboration between many stakeholders:

- Doctors of BC and JCCs – led by DTO
- Vendor Community
- Individual Health Authorities
- Ministry of Health
- JCC IMIT Clinical Advisory Working Group
- IMIT Standing Committee
- Information Privacy & Security Standing Committee
- Health Info Standards Standing Committee
- EMR Working Group
- Enterprise Architecture Working Group
- Collaborations with Divisions of Family Practice



First Nations Health Authority
Health through wellness



BRITISH COLUMBIA
Ministry of Health



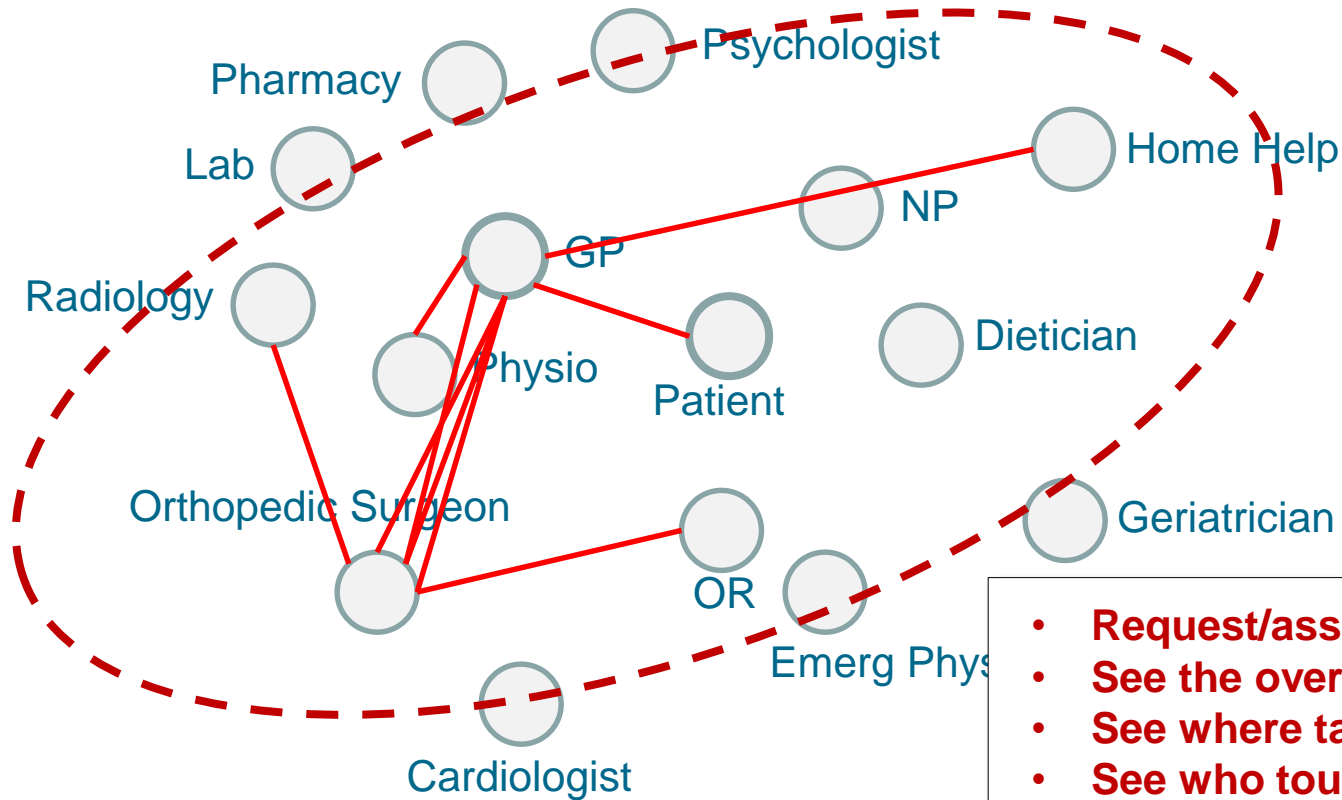
General Practice Services Committee

Roadmap

1. Longer-term Strategic View
2. Short-term Tactical View

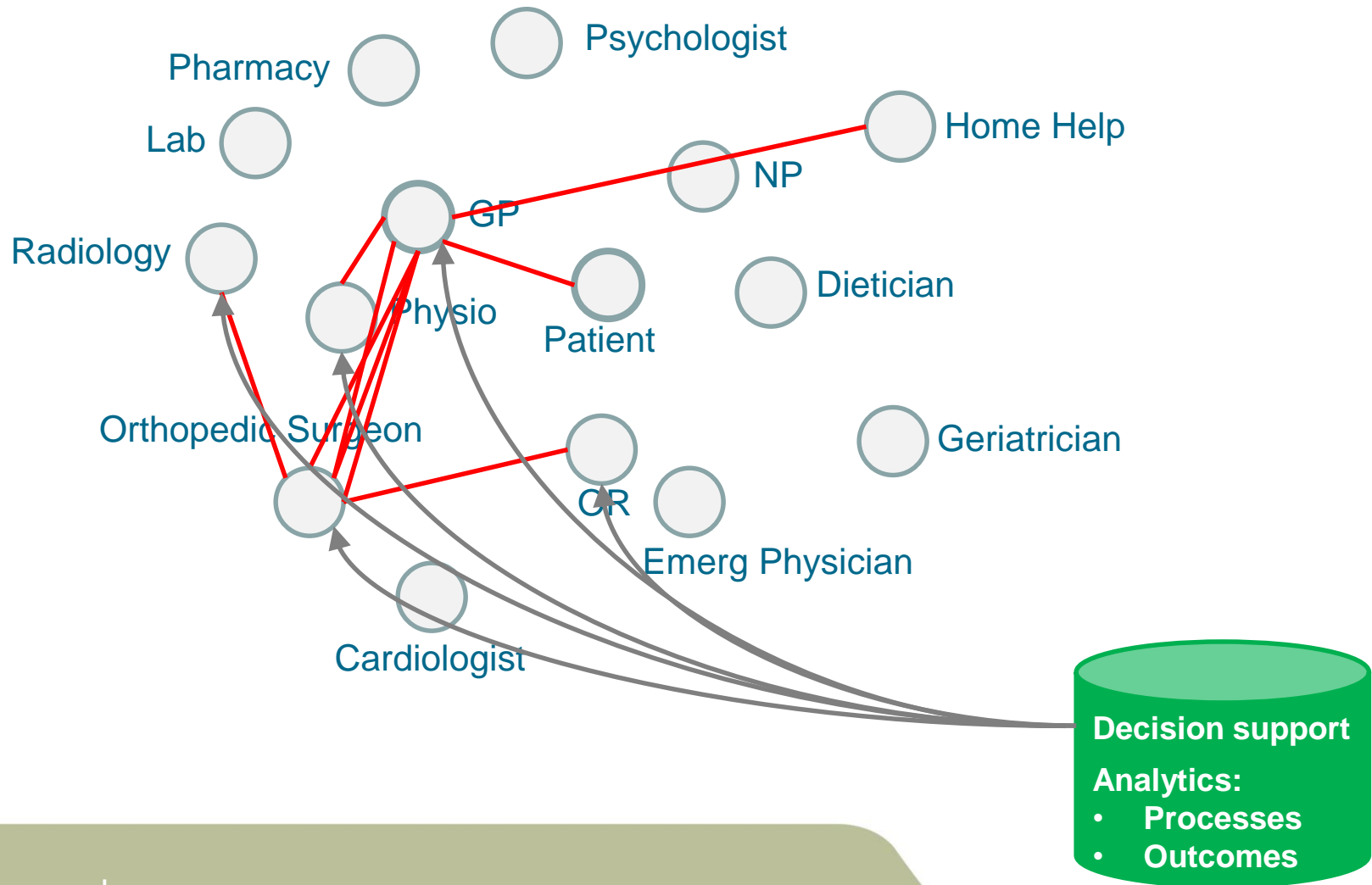


Typical Clinical Scenario

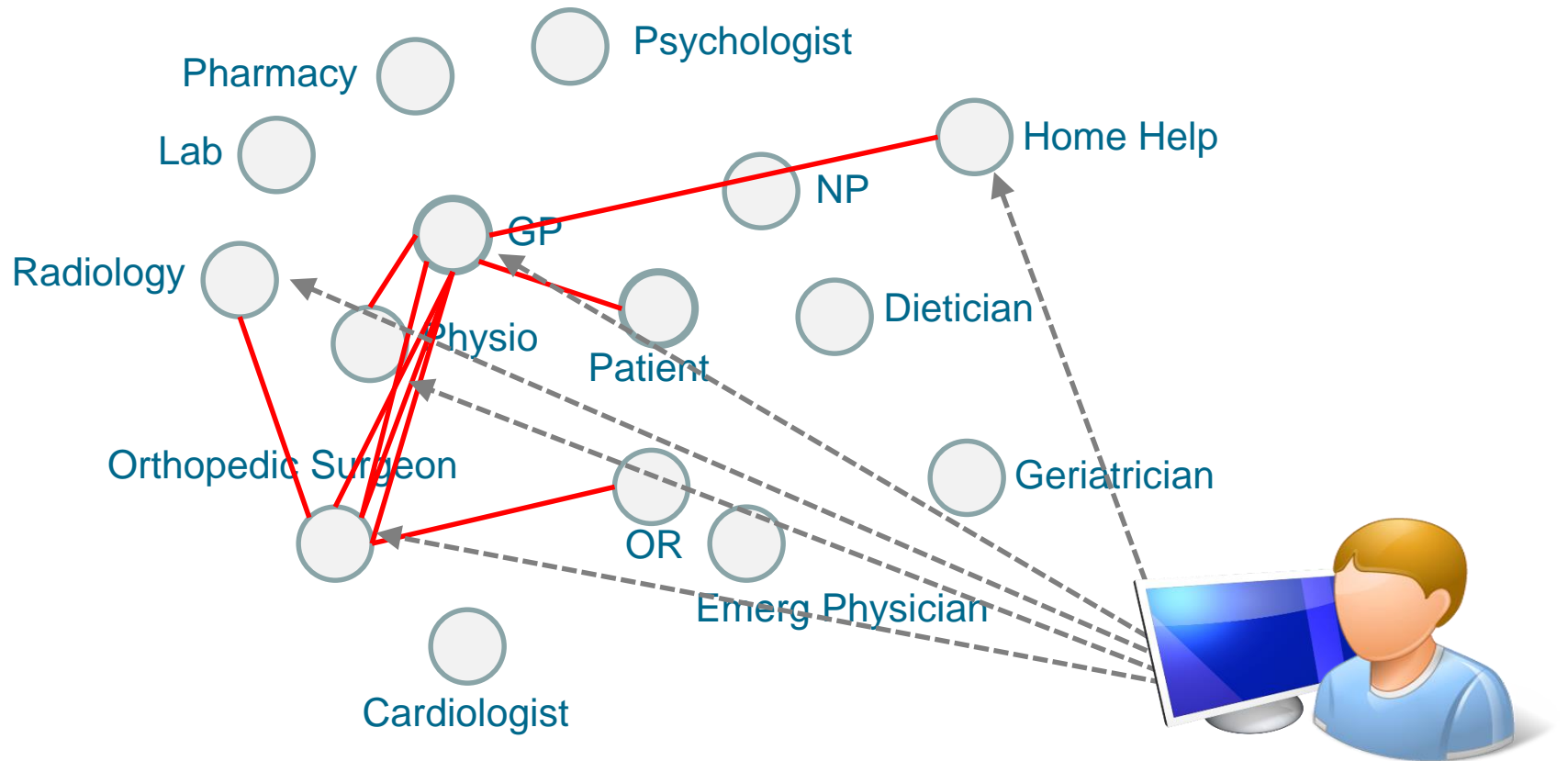


- Request/assign tasks
- See the overall plan
- See where tasks are at
- See who touched the patient
- See what else is being done
- Interact with team
- Coordinate care

Typical Clinical Scenario

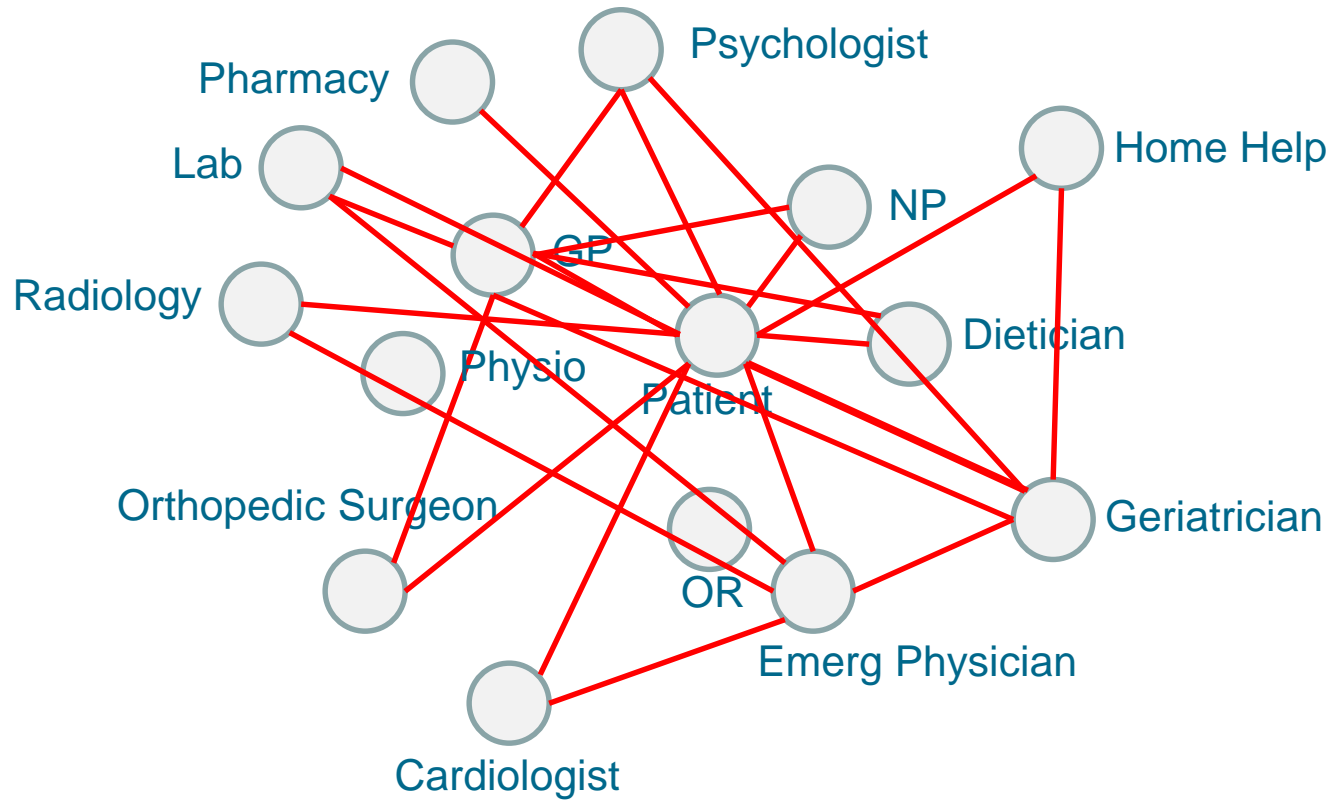


Typical Clinical Scenario



- **Reading results, reports**
- **Tracking progress**
- **Interacting with team**
- **Participating in care**
- **Controlling access**

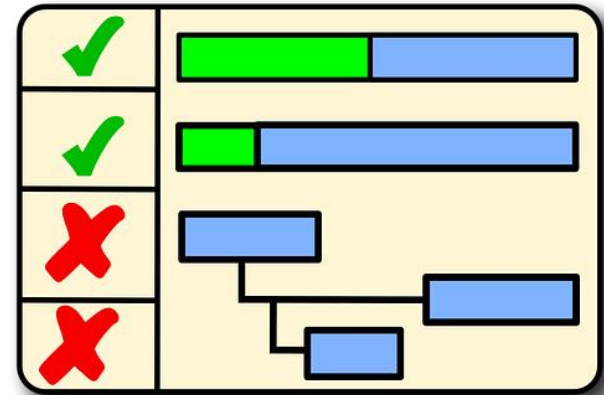
Generalize: Care Planning



Generalize: Care Planning

- Differing perspectives, varying processes
- May be more than one process/plan executing
- Multiple systems involved
- Everybody wants to control their own processes, data
- Info needs, processes often vary with local context
- Distrust of central systems controlling data, workflow

Generalize: Care Planning



Generalize: Care Planning

Game plan vs Coaching



Harmonized Privacy Legislation

Nobody holds Entire Record

Supportive Payment Model



Care coordination, workflow



Identity, Relationships



Role-based Access Control



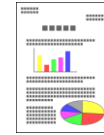
Coding



Security, Authentication



Event Notification



Reporting, Analytics



Integrated with EMR

Web-based apps, decision support, other systems

Bidirectional integration

Meds, Public Health, Other



BC/national systems



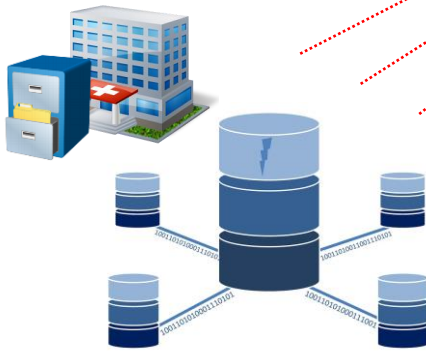
Your EMR: One interface One virtual record

Retrieve records, data ("pull")

IHE XDS

Access info; Interact with care team, EMRs, devices

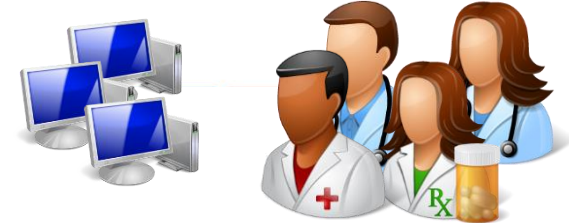
Send/receive docs, info, IM, updates, workflow (messaging, "push")



Regional repositories, ?EMRs



Patient portals, PHRs, apps



EMRs, hospital systems

Harmonized Privacy Legislation

Nobody holds Entire Record

Supportive Payment Model



Care coordination, workflow



Identity, Relationships



Role-based Access Control



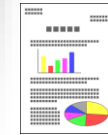
Coding



Security, Authentication



Event Notification



Reporting, Analytics



Integrated with E

Web-based apps, decision support, other systems

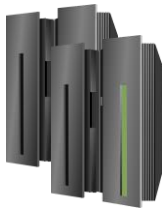
Retrieve records, data ("pull")

IHE XDS

Examples:

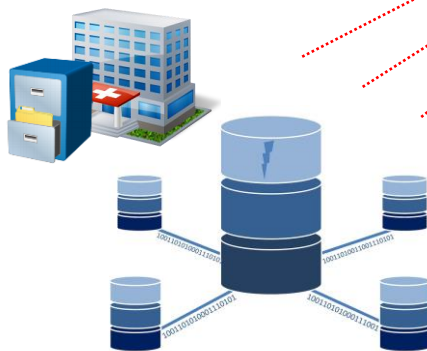
- Closed-loop order management
- Assigning, tracking tasks
- Where are we at with the shared care plan?
- Synchronous/asynchronous team discussions
- Who has touched the patient, and when?
- What referrals are currently in play?
- What appointments have already been made?
- Results carrying followup automated followup

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Regional repositories, ?EMRs



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Supportive Payment Model



Care coordination, workflow



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Coding



Security, Authentication



Event Notification



Reporting, Analytics

Examples:

- Within your practice
- Across the patient's journey
- Across populations
- Around specific interventions
- Learning system → feedback into workflows, guidelines



Integrated with E

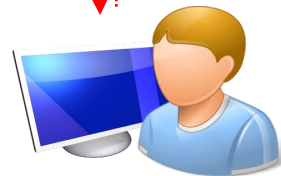
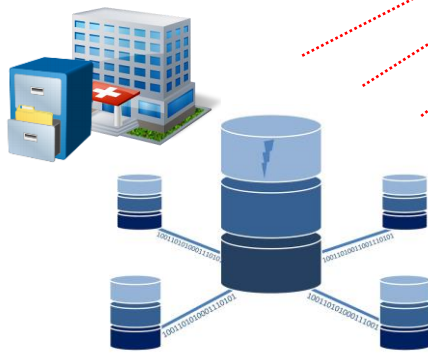
Web-based apps, decision support, other systems

Retrieve records, data ("pull")

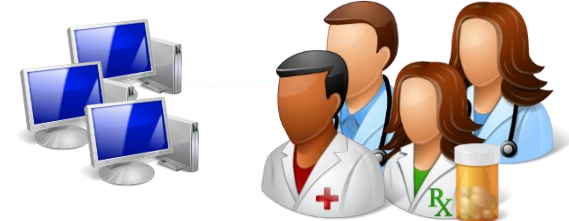
IHE XDS

Interact with care team, EMRs, devices

updates, workflow (messaging, "push")



Patient portals, PHRs, apps



EMRs, hospital systems

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Roadmap

1. Longer-term Strategic View
2. Short-term Tactical View



Focus on Standards



Identity –
Provider Location
Registry integration

Guidelines around
privacy framework



Secure network,
Authentication

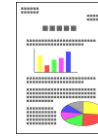
Billing code
discussions



PharmaNet integration
(Meditech, Cerner,
CareConnect)



Provincial work on
Shared Care Plans;
Care coordination
using messaging



Emerging QI tools
from HDC, CPCSSN,
Telus; PSP dashboard

IHA/NHA leading
interoperability with
CDX
Clinical Data eXchange

- eReferral, eConsult
- Clinical summaries
- Narrative care plans
- Notifications



Your EMR:
Improved integration

Log into portal/CIS;
Launch CareConnect in
context from EMR

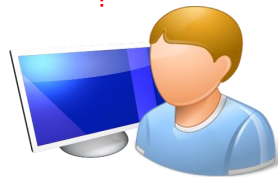
Some can
upload content
to portal, CIS

Access info;
exploring
link to EMRs

Bi-directional cross-vendor messaging:
eReferral, eConsult, clinical summaries,
shared care plans, reports,
notifications, structured data, etc



CareConnect
UCI, other portals
Cerner, Meditech



Patient portals, PHRs



EMRs, hospital systems



Summary

Short-term

- Mainly human-readable data
- 2-way communication
- Transitional use of portals
- eReferral
- eConsult
- Clinical summaries
- Narrative shared care plans

Longer-term

- Distributed data access
→ virtual single record
- Machine-readable data
- Managed workflow
- Seamless ecosystem of EMRs, portals, virtual care
- Embedded decision support
- Advanced analytics

