



Our path to smarter, seamless care

The CST project: past, present and future

BCHIMPS Educational Symposium

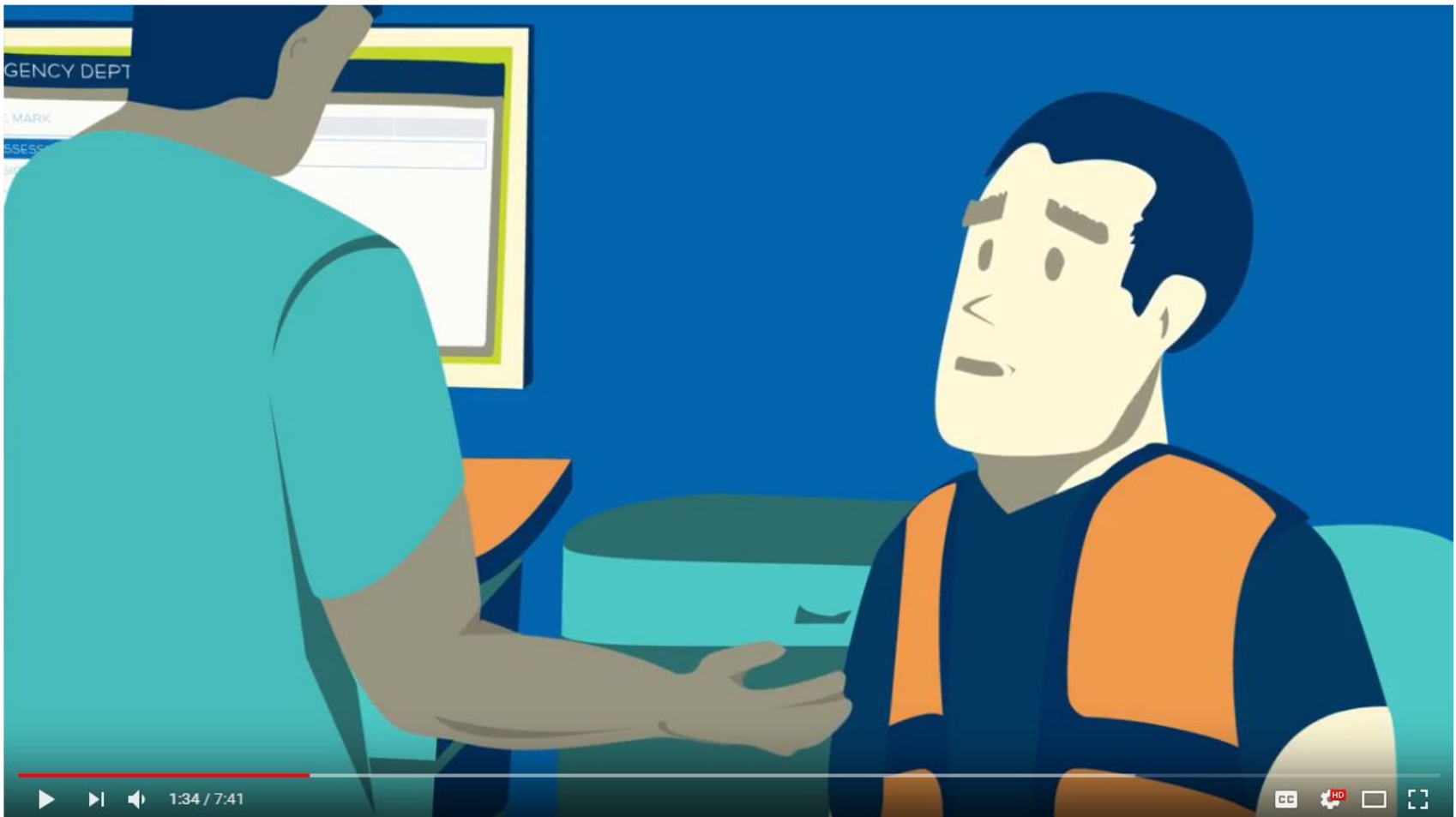
September 27, 2018



The back story: We've come a long way

Christine Jerrett, MN
*CST Project Clinical Informatics
Specialist*

The future of clinical care: Mark's patient journey



<https://youtu.be/w45z-gw0sxY>

Three Transformations



Clinical

Transforming processes such as work flows, order sets, closed loop medication management



Systems

Moving to an electronic medical record housed by a shared clinical information system



Quality Culture

Leveraging the power of our transformed processes and systems to continuously improve the patient and caregiver experience





CLINICAL + SYSTEMS TRANSFORMATION

Our path to smarter, seamless care



OUR FUTURE

A connected health system that works –
for patients and the people who care for them.



PROJECT DRIVERS



Patient Safety First

Reduce errors and adverse events

From timely access to information, to barcode scanning of medications, to better care planning, we're investing in a safer future.



Best Way, Every Day

Improve quality and consistency of care

We're designing safe, efficient care pathways that reflect the latest evidence to reduce unnecessary variations in care.



Face Time, Not Chase Time

Improve the health care experience for patients and care teams

Care teams won't have to chase charts and repeat questions or tests, and patients and families can be confident partners in their care.



Draw on Data

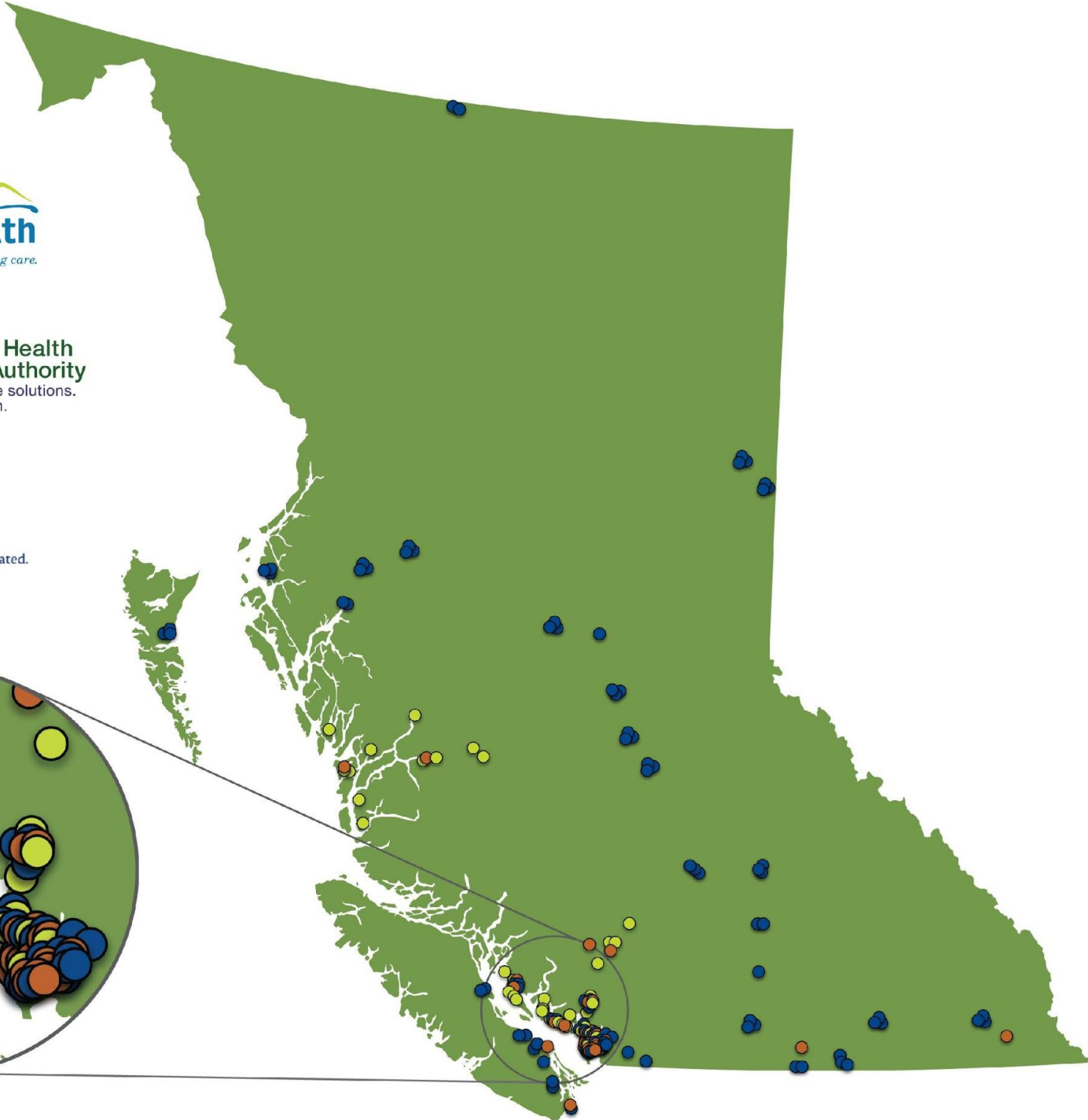
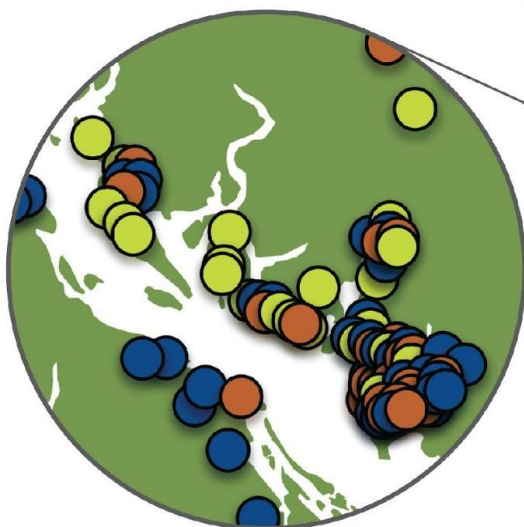
Gather better data to improve health system planning, research and proactive care

Fuller, richer information will give us a clearer picture of how we're doing and where we can improve.



Strengthen our Core *Improve information system reliability and sustainability*

Replace outdated systems with one clinical information system, which will connect with other key systems and make it easier to deliver quality care.



Whistler Health
Care Centre



Squamish
General
Hospital



Vancouver
General
Hospital



Richmond
Hospital



St. Paul's
Hospital



UBC
Hospital



Lions Gate
Hospital



BC Cancer
Agency



BC Children's
Hospital & BC
Women's Hospital
& Health Centre



35-40 Facilities
3,416 acute beds
2,148 LTC beds

- 8+ Provincial Referral Services
- Community Hospitals
- Residential Care
- Primary & Community Care Integration
- Tertiary/Quaternary academic teaching hospitals

11,100

NURSES

5,800

PHYSICIANS

3,600

OTHER

2,800

ALLIED HEALTH

1,900

RESEARCH &
STUDENTS**

400

PHARMACISTS

400

Management

3,400

CLERICAL

600

LAB

500

HIM

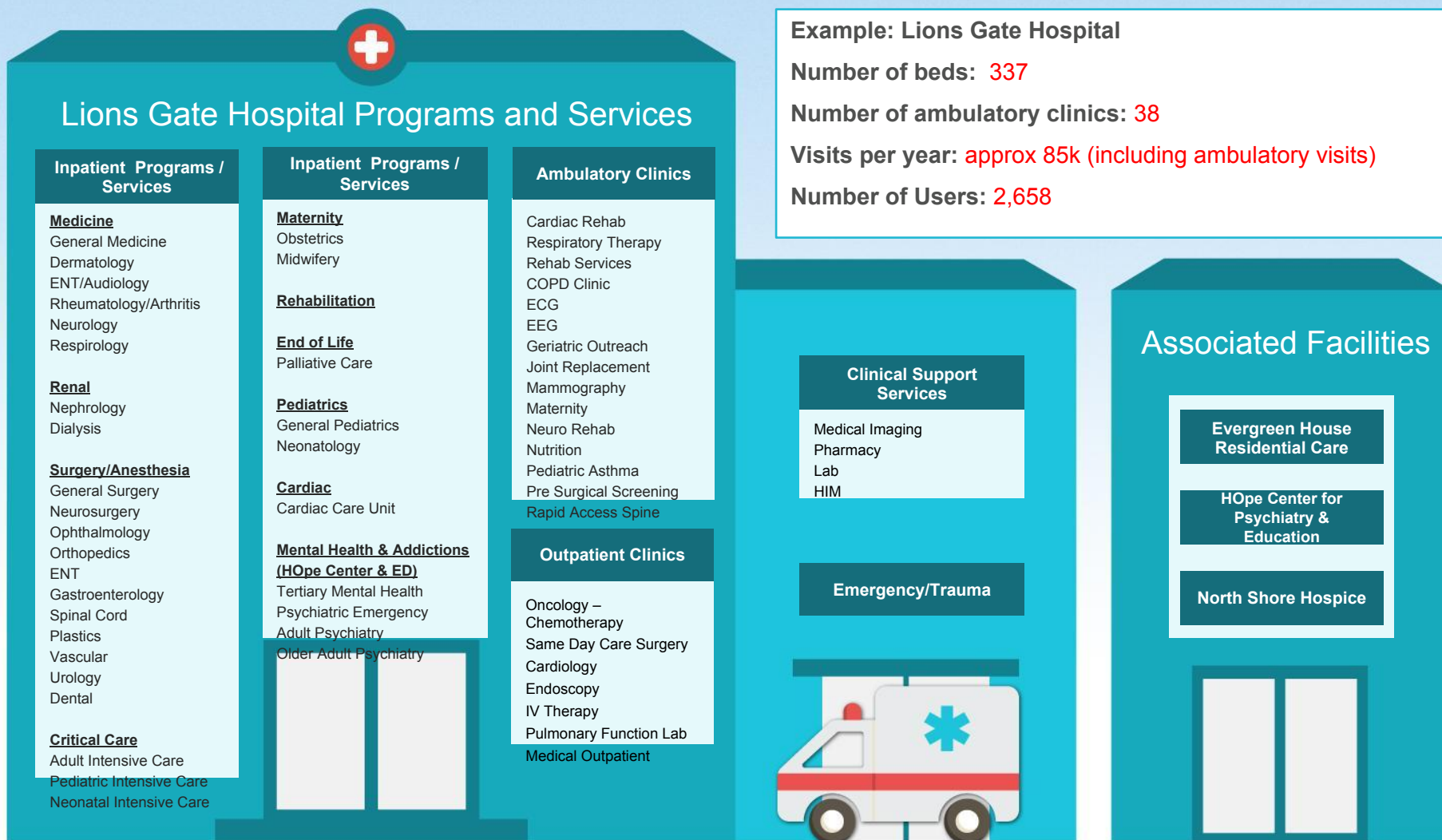
3,200

CARE ASSISTANTS

Total
Approx. 35,000



How the transformation looks on the ground



Example: Lions Gate Hospital

Number of beds: **337**

Number of ambulatory clinics: **38**

Visits per year: **approx 85k (including ambulatory visits)**

Number of Users: **2,658**

CST in the headlines

NEWS

High-Cost BC Health Record Project Loses Lead Contractor

FOI records show tension between stakeholders.

BREAKING NEWS: Health minister says he read riot act to IT leaders over megaproject problems; IBM out, Cerner in

B.C. government steps in on problem-plagued hospital IT project

Health minister vows reform at 'toxic' Nanaimo hospital

B.C. health minister defends maligned iHealth records system

Government hires mediator to fix problems with Nanaimo iHealth records project

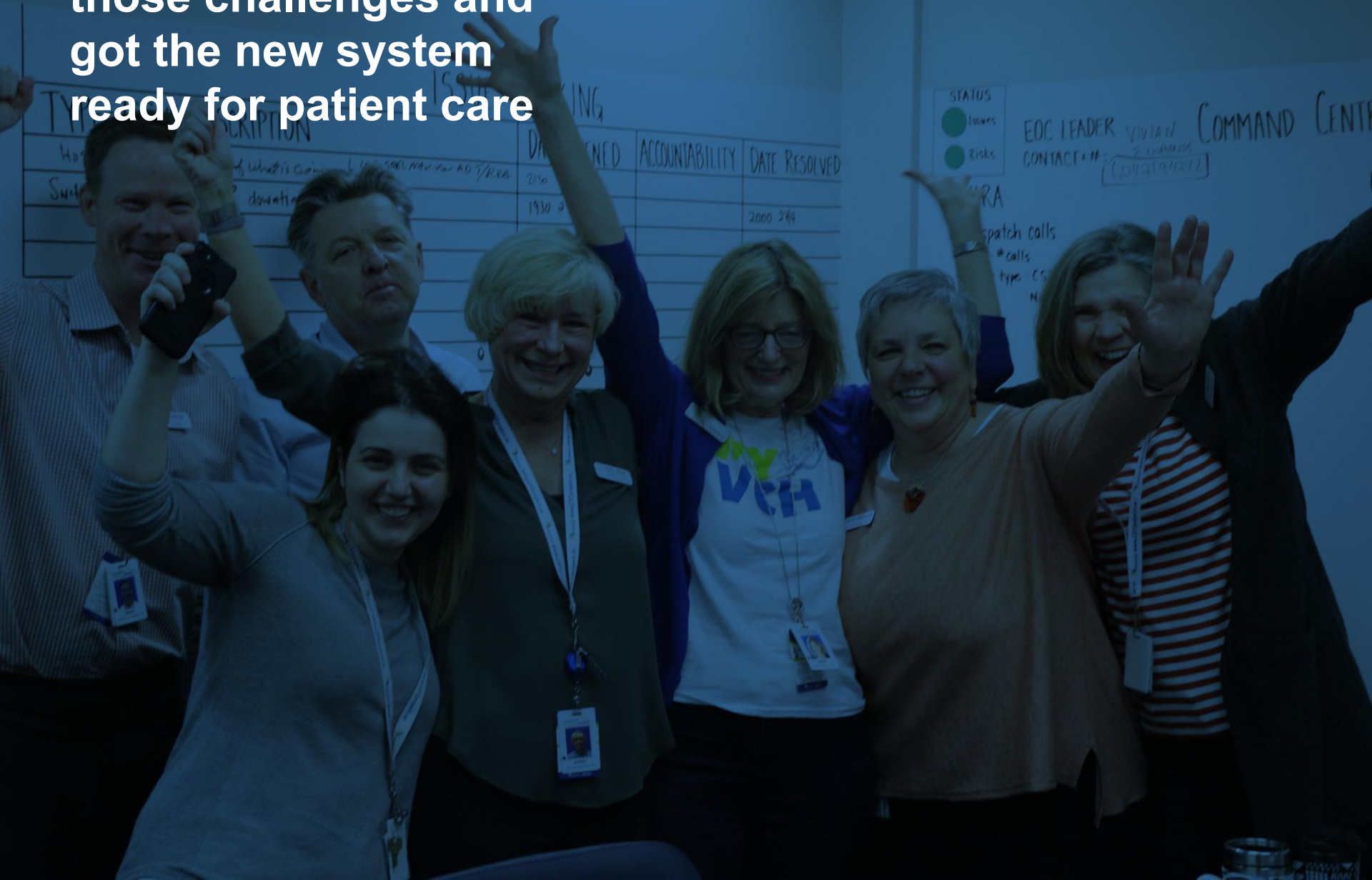
More delays, cost overruns hit Vancouver electronic health project



Big challenges

- Finding the **right approach**
- Coloured by the **Nanaimo experience**
- **Three health organizations** add complexity to an already complex project
- **Ambitious scope**

How we overcame
those challenges and
got the new system
ready for patient care



How we overcame
those challenges and
got the new system
ready for patient care

**Incorporated learnings
from other Cerner sites**



How we overcame
those challenges and
got the new system
ready for patient care

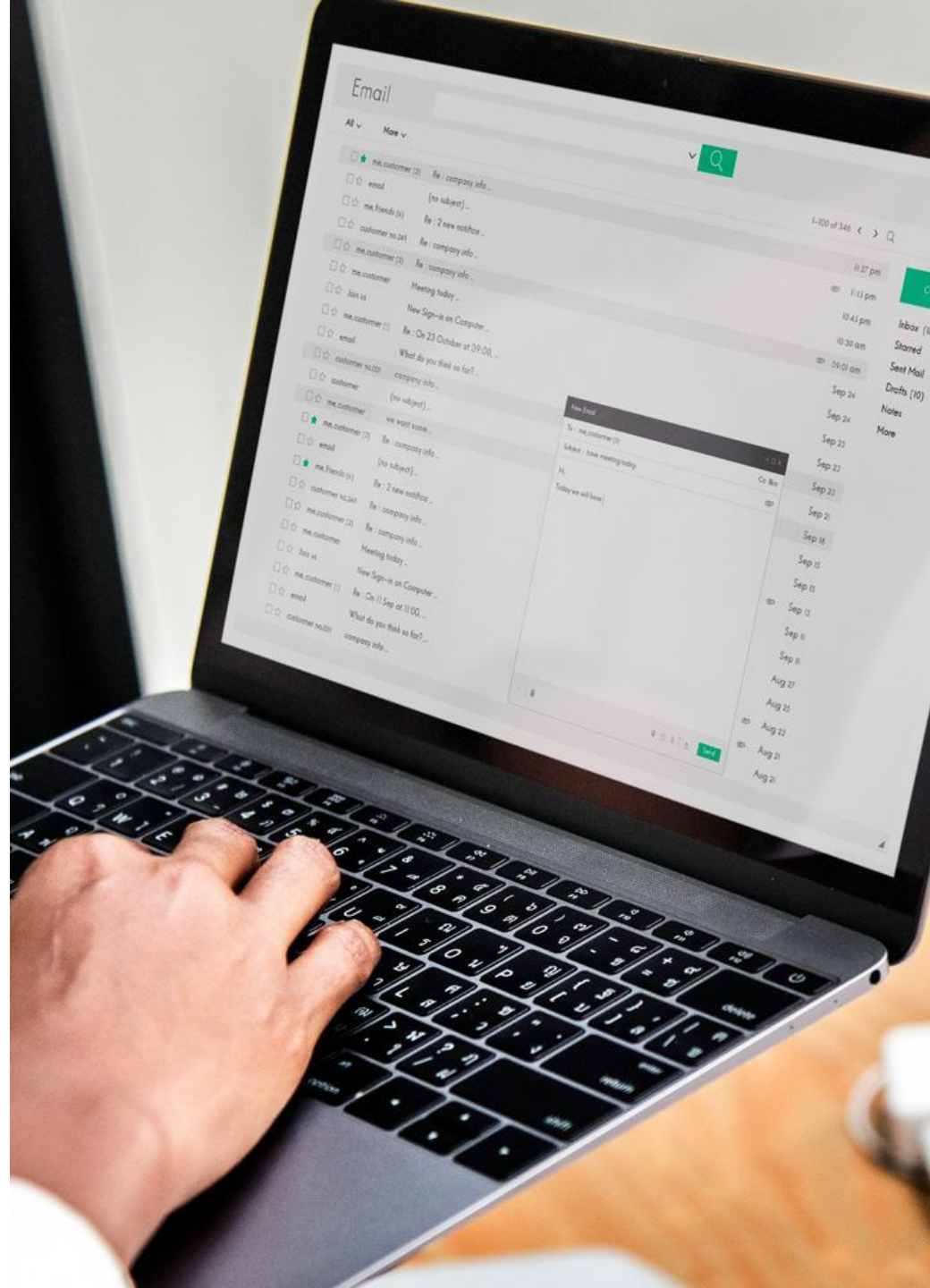
**New clinical
governance structure**



How we overcame
those challenges and
got the new system
ready for patient care

**Transparent
decision-making**

**Approx. 2,400 clinical
decisions documented**



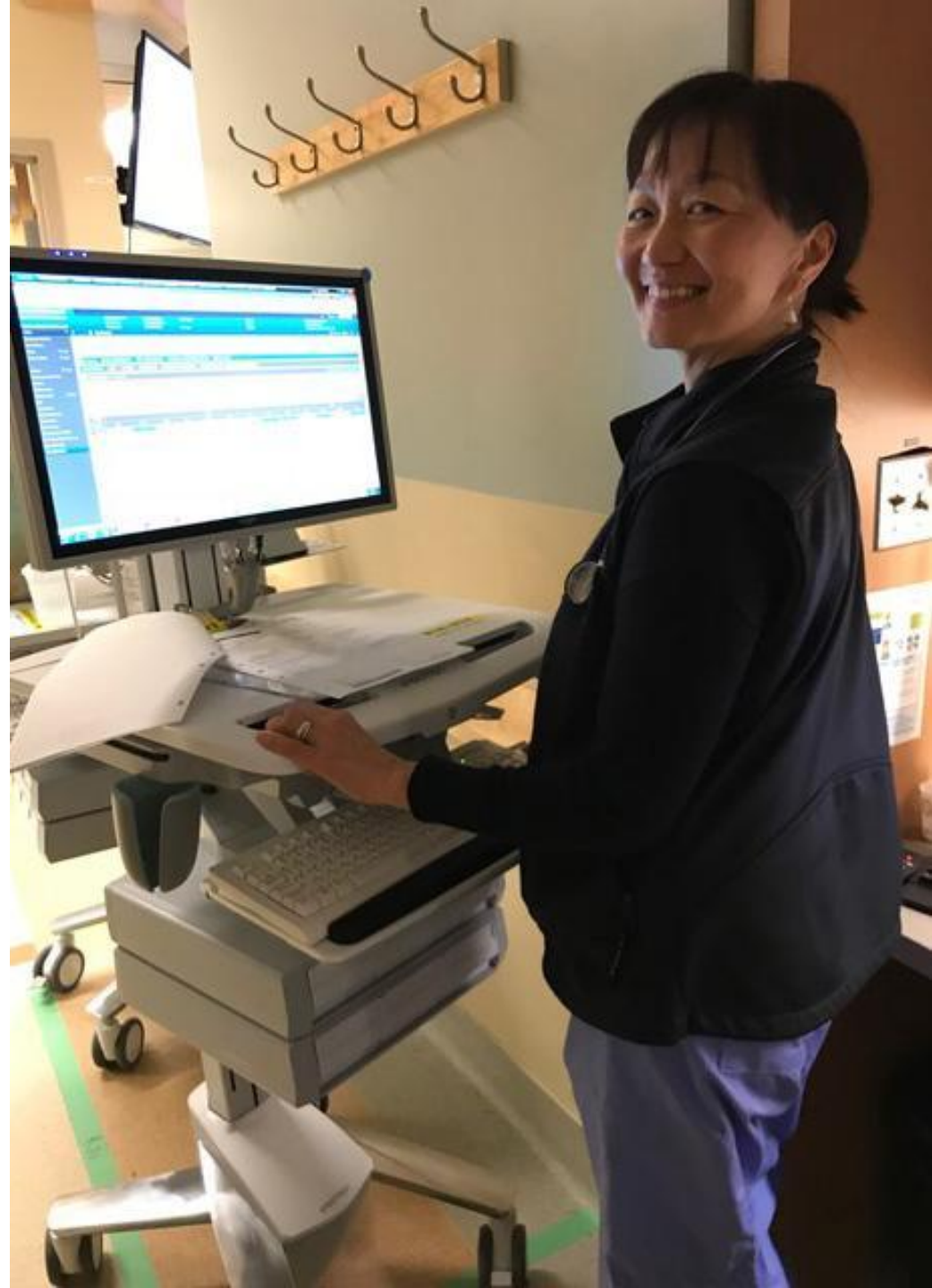
How we overcame
those challenges and
got the new system
ready for patient care

**Focused on highest
clinical priorities
(KPIs)**



How we overcame
those challenges and
got the new system
ready for patient care

**Active engagement of
physicians and clinical
staff**



How we overcame
those challenges and
got the new system
ready for patient care

**Coastal site leaders
were deeply involved**



How we overcame
those challenges and
got the new system
ready for patient care

**Multi-faceted approach
to training and
engagement to get
people ready**



How we overcame
those challenges and
got the new system
ready for patient care

**Embedded
'peer mentors'**

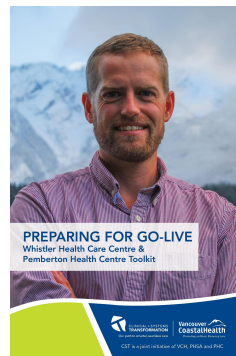
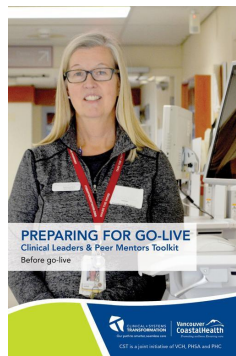


How we overcame
those challenges and
got the new system
ready for patient care

**Communication,
communication,
communication**



Communications materials



Starting April 28, 2018, Lions Gate Hospital and Squamish General Hospital will move from paper-based charts to electronic patient records.

Thank you for your patience during this time.

Learn more about the benefits: CSTproject.ca

CST is a joint initiative of Vancouver Coastal Health, Provincial Health Services Authority and Providence Health Care



CST Support Guide

Go-live period (starting April 28, 2018)

OPTION 1:

Ask at-the-elbow support staff for help to resolve issues.

GREEN (clinical)
BLUE (technical)

OPTION 2:

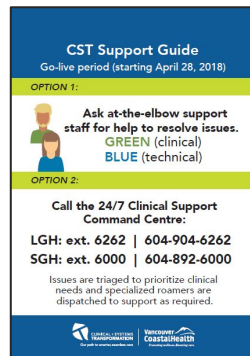
Call the 24/7 Clinical Support Command Centre:

LGH: ext. 6262 | 604-904-6262
SGH: ext. 6000 | 604-892-6000

Issues are triaged to prioritize clinical needs and specialized roamers are dispatched to support as required.

ourCSTproject.ca/coastal

CST is a joint initiative of VCH, PHSA and PHC



Secrets of a successful “go-live” at LGH and SGH



Secrets of a successful “go-live” at LGH and SGH



Up-staffing



Secrets of a successful “go-live” at LGH and SGH



Secrets of a successful “go-live” at LGH and SGH



Up-staffing



Patient load sharing



24/7 support



Secrets of a successful “go-live” at LGH and SGH



Up-staffing



Patient load sharing



24/7 support



Daily meetings

‘Going live’ with CST

Dr. Charles Lo

Associate Chief Medical Information Officer, CST

Christine Jerrett, MN

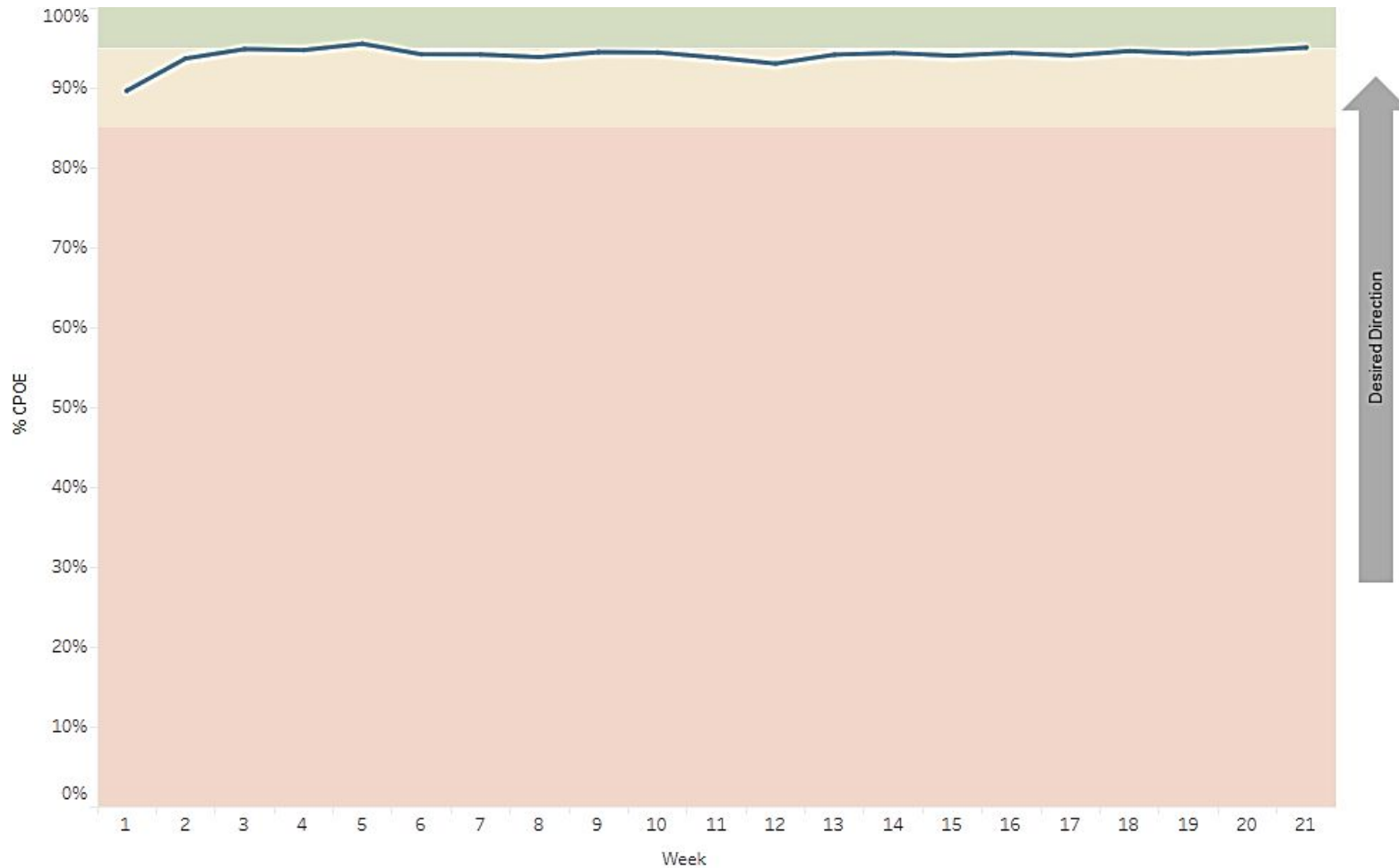
CST Project Clinical Informatics Specialist

The 'go-live moment' – what it was like to be there



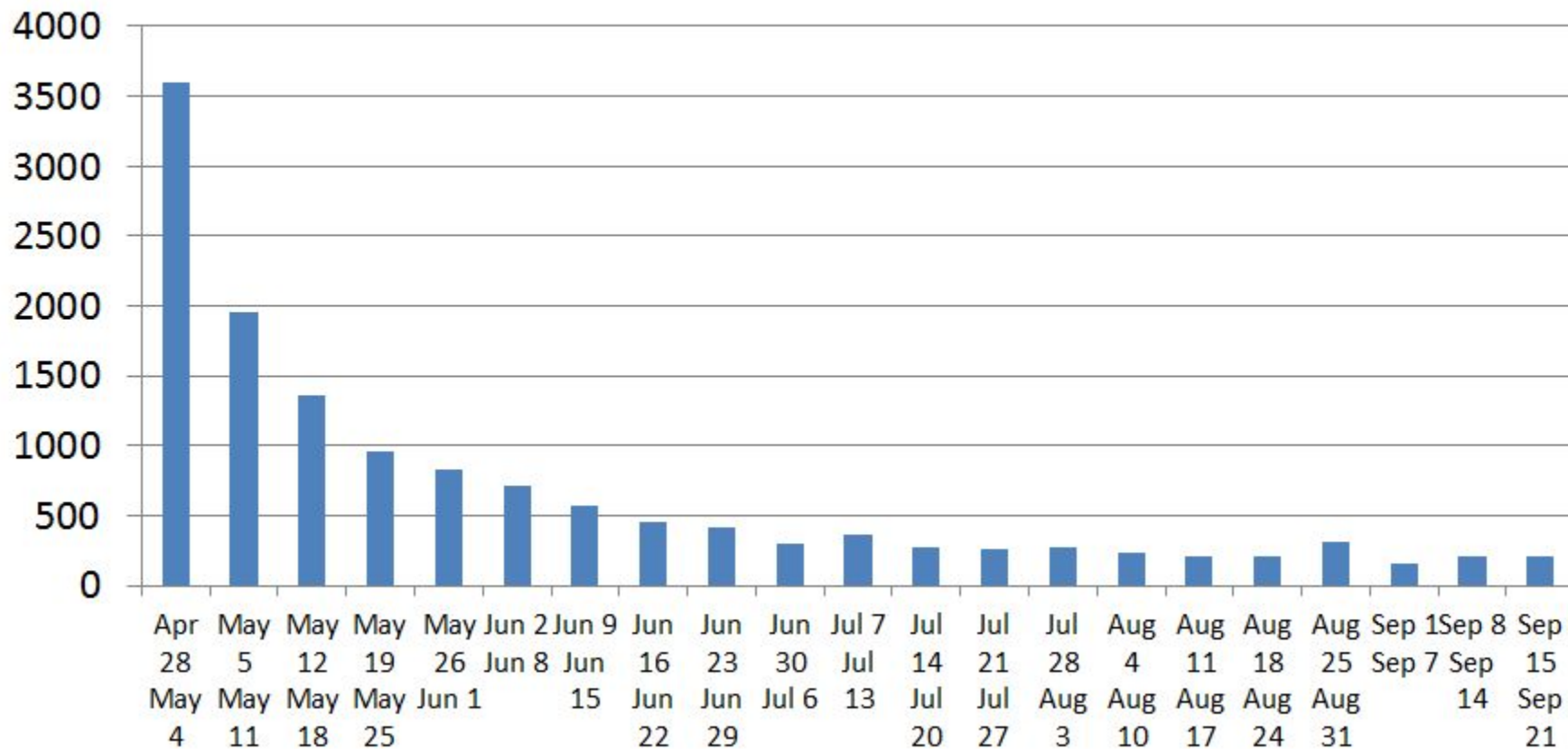
So, how'd we do?

Computerized Provider Order Entry (CPOE)



So, how'd we do?

Support desk tickets created since go-live



Lessons learned from CST's first go-live



https://www.youtube.com/watch?v=E_aUoHVqKQY



Getting ready at BC Cancer

Dr. Frances Wong

*Vice President of Medical Affairs &
Medical Information, BC Cancer*

BC Cancer – CST

Preparing for being next

BCHIMPS Conference

September 27, 2018

Frances Wong

CST is a joint initiative of VCH, PHSA and PHC



Empowerment approaches: patients, providers & clinical leaders

Patients

- 'This is why' video
- Input into device selection

Providers & clinical leaders

- 'This is why' video
- Input into device selection
- Participation in committees, working groups, order set validation, and design
- Next, involvement in:
 - system integration testing (SIT)
 - workflow review sessions (e.g. patients-in-transition)
 - approach to cutover of patient information, and
 - planning for centre activations



Input into device selection

- 1** Prioritizing face-to-face contact when the clinician is interacting with the computer.
- 2** Making monitors mobile and large enough to make sharing information with patients and family members easy.
- 3** Maintaining appropriate distance between the clinician and the patient.



BC Cancer- Surrey clinic B – room 6

Patients:

100% agree with location (switch exam bed and workstation)

67% like wall mount + suggest fit under

100% agree with orientation

13 providers / clinical leaders:

Easy to use?
92%

Like the sit-stand option?
61%

Works for the room?
67%

Learning from VCH Coastal (G1) - Preparedness

BCCA-CST Implementation Plan – Work Streams and Projects

1.0 Implementation Planning Road Map (Mary Flaherty & Jody Seerup)	2.0 Clinical Information Design, Validation & Localization (Mary Flaherty & Jody Seerup)	3.0 Clinical Readiness (Shellen Letwin)	4.0 Productivity Mitigation & Staffing Strategy (Shellen Letwin)	5.0 Technical Readiness (Laura White & Shaina Reid)	6.0 Cutover & Activation (Frances Wong & Jody Seerup)	7.0 Downtime & Business Continuity (Frances Wong)	8.0 Sustainment (Mary Flaherty)	9.0 People Readiness (Bernice Butz)	10.0 Population Oncology & Research (John Spirelli & Francois Bernard)
Implementation Plan Lead: Mary, Angela, Annie & Jody	CST Design Sessions Key Contact: Angela V-R	Chemo Scheduling Lead: John Larmet PM: Sam Alharbi	Productivity Mitigation, Staffing Strategy Lead: Del Leibel PM: TBD	CAIS Stabilization Lead: Angela V-R PM: Milan Veljovic	CAIS User Access Clean Up			Prosci Training for leaders Lead: Annie Smith PM: Allyson Clark	Screening Lead: Lisa Kan PM: TBD
Road Map/Sequencing Lead: TBD	Clinical Councils Lead: Mary Flaherty & Owen Haley	Closed Loop Med Mgt Lead: Crystal Maric & Ruby Gidda PM: Victor Lu		CAIS Decommissioning & Archiving Lead: Angela V-R PM: TBD	CAIS Data Remediation			Stakeholder Analysis Lead: Annie Smith PM: Allyson Clark	Clinical Trials Lead: TBD PM: TBD
Timeline & Milestones Lead: Jody		RT Scheduling Lead: Del Leibel PM: Sam Alharbi		Chemo SmartBook Review Lead: Laura White PM: TBD	Activation Requirements for CONs			Change & Comm Plan Lead: Annie Smith	
Integrated Project Plan Lead:		Surgery Standardization Lead: Heather Findlay PM: Sam Alharbi		Legacy System Assessments Lead: Laura White PM: TBD				Learning & Development Plan Lead: Anne Hughes	
KPIs Lead:		FESR Lead: TBD PM: Jay Van Brunt		Device Provisioning Lead: Shaina Reid PM: TBD					
		Chart Migration Lead: Helen Anderson & Audrey Barry PM: Sam Alharbi		BCCA IT Site Infrastructure Readiness Lead: Shaina Reid PM: TBD					
		ACU Scheduling Lead: TBD PM: TBD		Interfaces Lead: Laura White PM: Mike Waddingham					
		CONs Lead: TBD PM: TBD		Electronic Reports Distribution Lead: TBD PM: TBD					
		RT Order Sets Standardization Lead: Scott Tyldesley, Lorna Weir PM: TBD		Downstream System Upgrades Lead: TBD PM: TBD					
				WiFi Assessment Lead: Angela V-R PM: John Roberts					

DRAFT
Updated: June 27, 2017



Enablers: Project Management, Change Management, Engagement, Communications, Evaluation

Learning from VCH Coastal (G1) - Preparedness

General

- Needs more focus on workflows
- More didactic teaching components
- Classroom sessions that relied solely on self-paced model not as effective
- Local provider champions leading learning sessions more effective

Workforce Planning

- Ratio of peer mentors and at-the-elbow support
- Provider champions
- Outside physician support (we should include Group 1 resources for our go-live)

Communication

- Don't communicate **too early** + create **tailored** strategy & program
- Change management is best embedded
- Change network: SUDs / peer mentors / provider champions / educators are key communicators and need support
- Explain the journey + temperature check during training

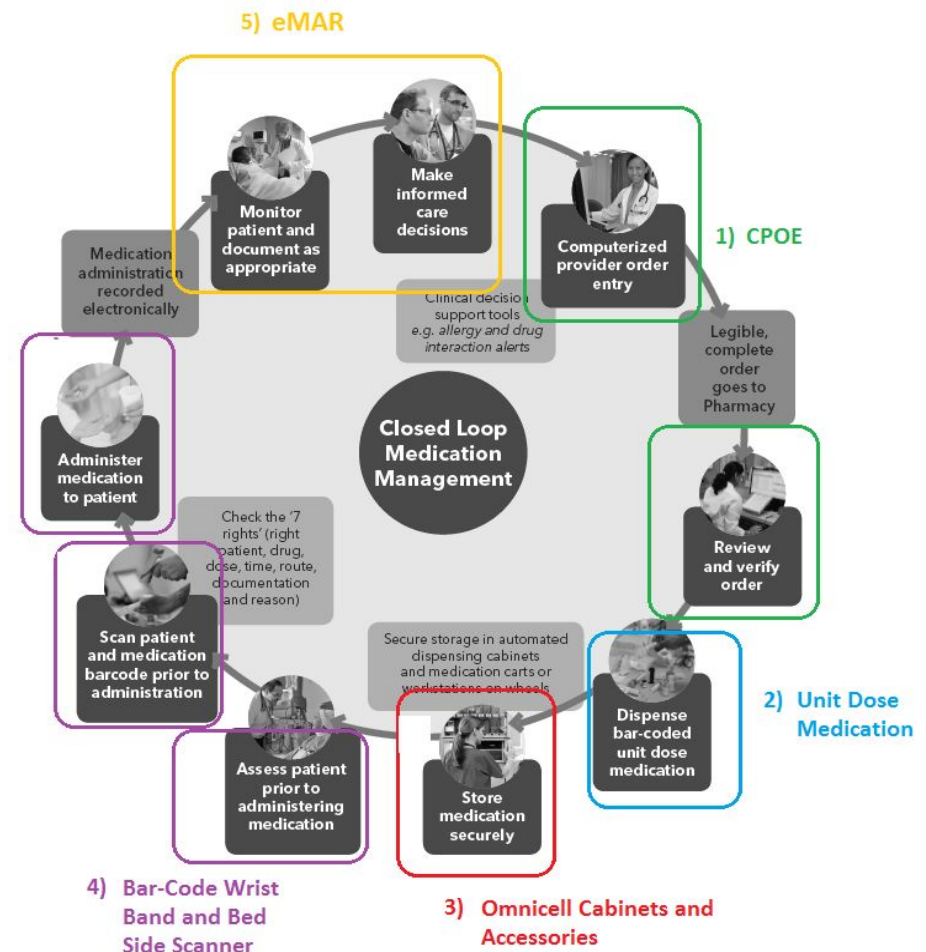
Learning from VCH Coastal (G1) - Preparedness

Early Implementation
Never too early

Close Loop Medication Management (CLMM)*

- Preparation started 2017
- Devices ordered
- Interim phase needed

*CLMM Video: <http://bit.ly/cst-clmm>



CLINICAL + SYSTEMS
TRANSFORMATION

Our path to smarter, seamless care

BC
CANCER

Provincial Health Services Authority

A joint initiative of VCH, PHSA, and PHC

Learning from VCH Coastal' (G1) - preparedness

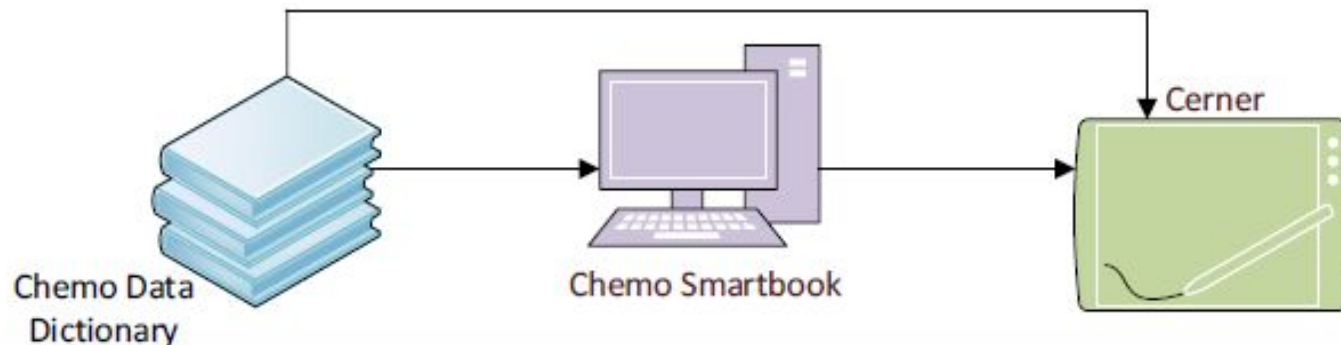
Early Implementation - *never too early*

Chemo SmartBook

- Schedule optimization tool
- Optimization relies on pre-determined criteria
- Organizes to the most efficient way across the available resources: pharmacy/rooms/chairs/nurses

Standardized Nurse Chair time

- Would be nice to go live prior to CST implementation
- Limitation of timing increments with current version (15 vs 5 min)



Learning from other organizations using Cerner



Indiana University Health Hospital

- Site visit March 2016
- Chemotherapy ordering in action real life
- Cut over involving medical oncologists & pharmacists
- Chemotherapy paper PPO remains the source of truth



London Regional Cancer Program

- Site visit November 2017
- Engage clinicians early, dedicated physician champions
- Train nurses on physician workflows



Nanaimo Hospital

- Physician engagement
- At elbow support for sustainment
- Advance Care Planning module

Differences between us and VCH Coastal

Type of business

- LGH is Acute Care
- BC Cancer is Ambulatory Care (across encounters)

Geographic location

- Grp 1 being community based
- Grp 2 being provincial, 6 centres with satellites, interaction with other HAs

Ability to adjust work volume

- LGH can decrease intake via ER
- BC Cancer cannot decrease cancer incidence

Provider engagement

- Grp 1 physicians are primarily fee for service
- Grp 2 physicians are primarily contracted

How BC Cancer is unique from VCH Coastal

Supporting Regional Centre Delivery

- Dedicated Clinical Informatics Adoption Leads and Coordinators
 - One each per centre
 - Responsible for coordinating SMEs for D&B sessions, Work flow discussions, and Provider engagement, general regional centre oversight

Supporting Provincial Planning

- Regional Council – point of escalation & standardization
- Central development of communication material

How BC Cancer is unique from VCH Coastal

Designated SMEs

- Participate in working groups, D&B sessions, validations
- Consistency for standardizing BC Cancer work flow
- Consistent group working with CST teams
- Can be deployed as peer mentors at go-live

Physician Engagement



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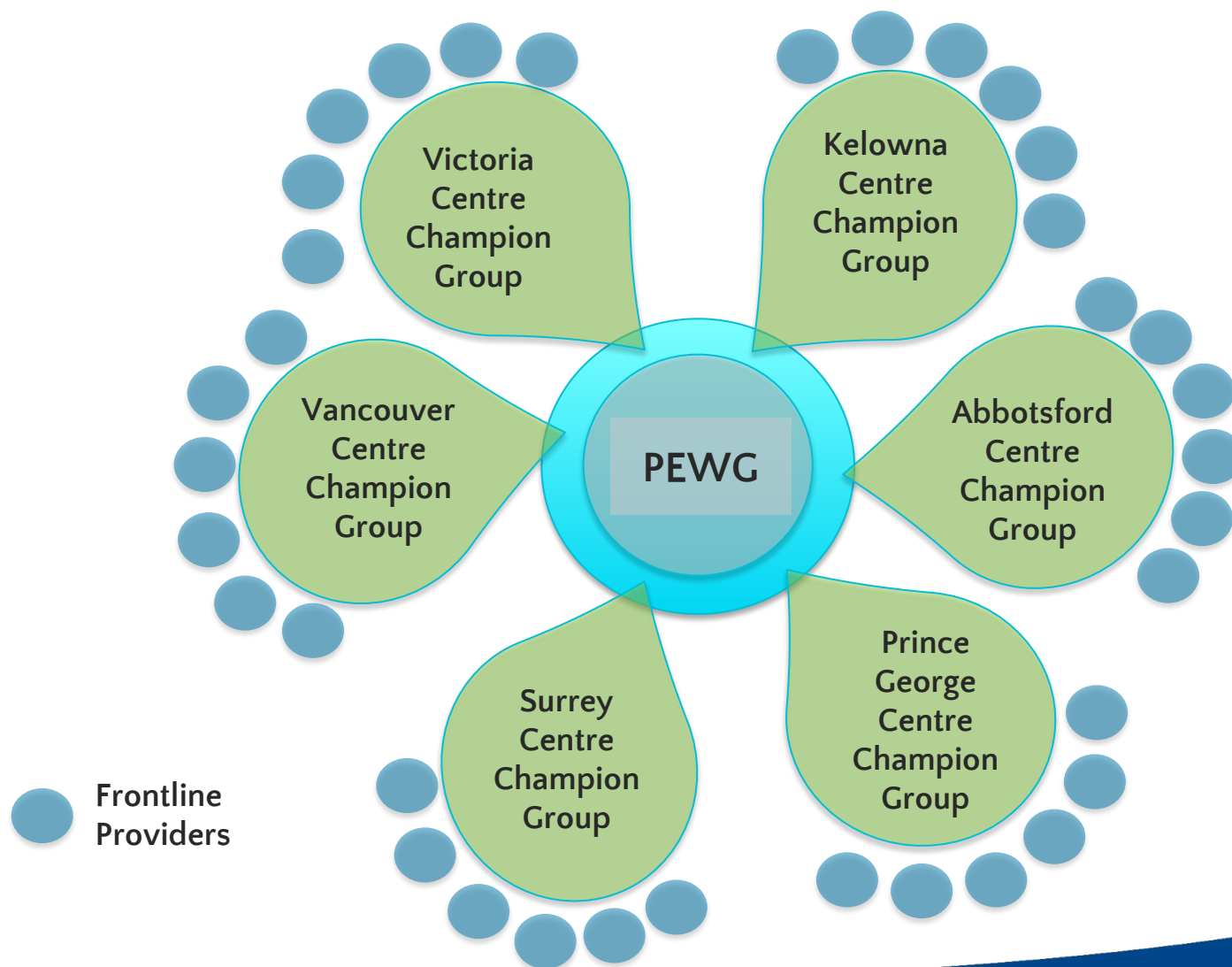
Our path to smarter, seamless care

BC
CANCER

Provincial Health Services Authority

A joint initiative of VCH, PHSA, and PHC

BC Cancer: provider engagement model



Thank You!

A joint initiative of VCH, PHSA, and PHC



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TRANSFORMATION

Our path to smarter, seamless care

**BC
CAN
CER**

Provincial Health Services Authority

The patient experience

Victoria Withers

*Patient at Lions Gate Hospital
and former VCH Board Director*

Concluding remarks

Christine Jerrett, MN

CST Project Clinical Informatics Lead



**Significant improvements expected
with the next iteration of CST**

Shape the future of health care in BC!



Full-time career opportunities available with the
Clinical & Systems Transformation (CST) project in Vancouver

Available positions:

Clinical Informatics Leads
Clinical Informatics Specialists
Clinical Analysts
Project Managers

Team Leads
Clinical Professionals
Technical Professionals

Shape the future of health care in BC!



Full-time career opportunities available with the
Clinical & Systems Transformation (CST) project in Vancouver

To apply, go to:

cstproject.ca/about-cst/career-opportunities

Questions? info@CSTproject.ca



Panel discussion/Q&A

Julie Kim