

Home Health Monitoring in Home & Community Care



Model Updates and Outcomes

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Outline

- ▶ Background
- ▶ Expansion and model changes
- ▶ Findings and Outcomes
- ▶ Lessons Learned



Focus on Heart Failure

Heart Failure is the leading cause of hospitalization for people over the age of 65 with a six-month readmission rate as high as 50% and one-year mortality rates as high as 40% after diagnosis.

Arnold, et al., 2006; Deaton & Grady, 2004; Ravel & Arnold, 2002



Start Home Health Monitoring 2008

Each client
received 3+ home
visits



20 clients Using Monitors

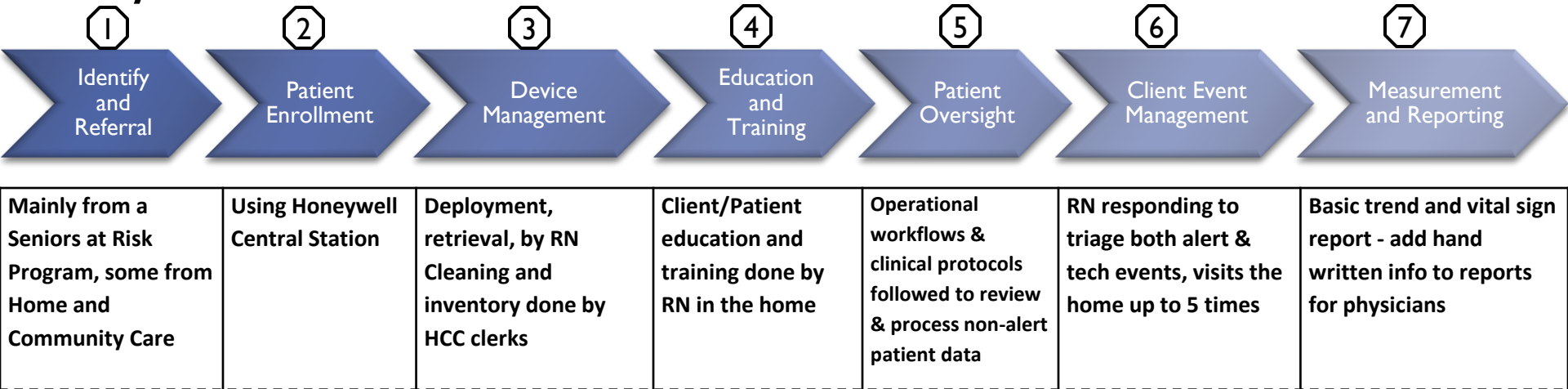


20 Regular Homecare clients



6 Years of Monitoring – 1st Model

2008/ 2011 1st Model



Findings 2009

- ▶ **65% decrease in emergency visits**
- ▶ **61% decrease in hospital admission**
- ▶ **75% decrease in length of stay**



Expansion and Revised Model 2011 - 2013: Quality and Efficiencies

- ▶ Expand to Centre Island
- ▶ Partner with Heart Function Clinic
- ▶ Review Eligibility Criteria
- ▶ Introduce Group Education Sessions
- ▶ Reduce Home Visits
- ▶ Delivery and Retrieval Options

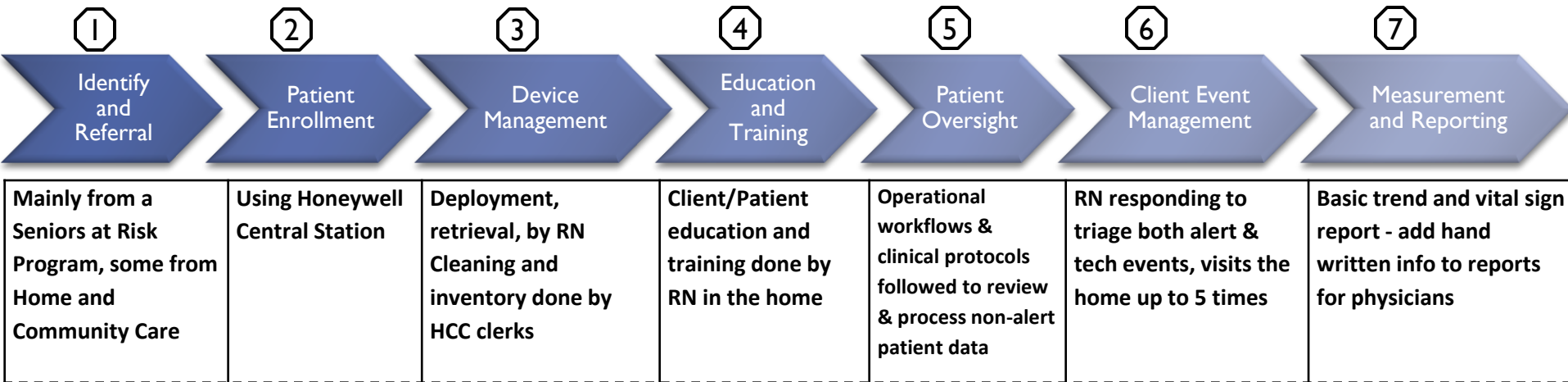


Goal: 50 clients Using Monitors

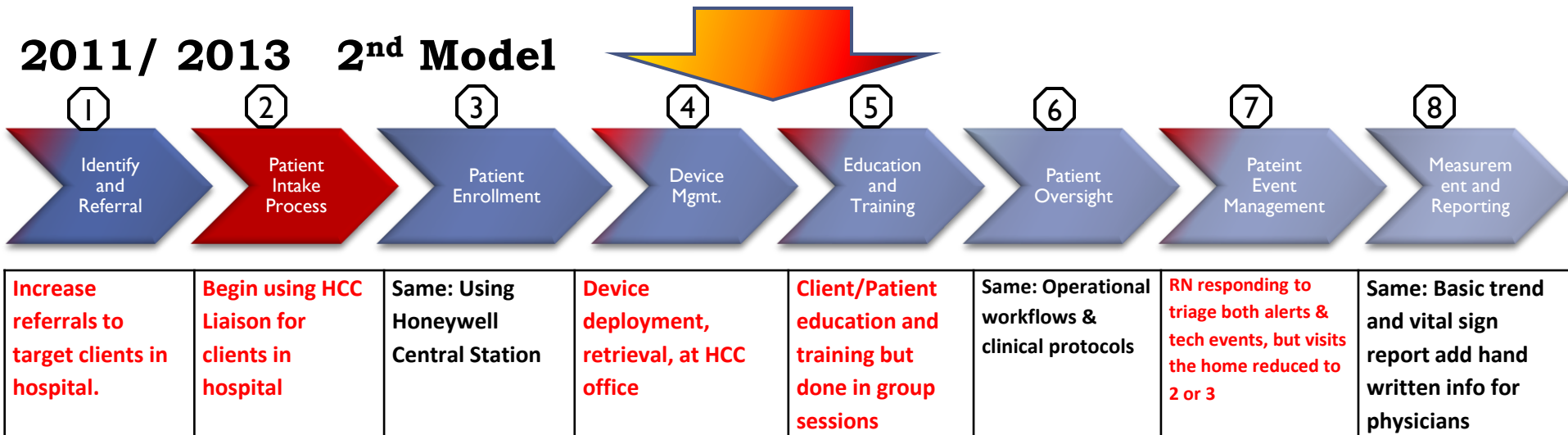


6 Years of Monitoring – 2nd Model

2008/ 2011 1st Model



2011/ 2013 2nd Model



Expansion: Model 2 Maintaining Quality

Pre and post Telehome Monitoring Service (n=70 clients)

- 70% reduction in ER Visits
- 78% Reduction in Hospital Admits



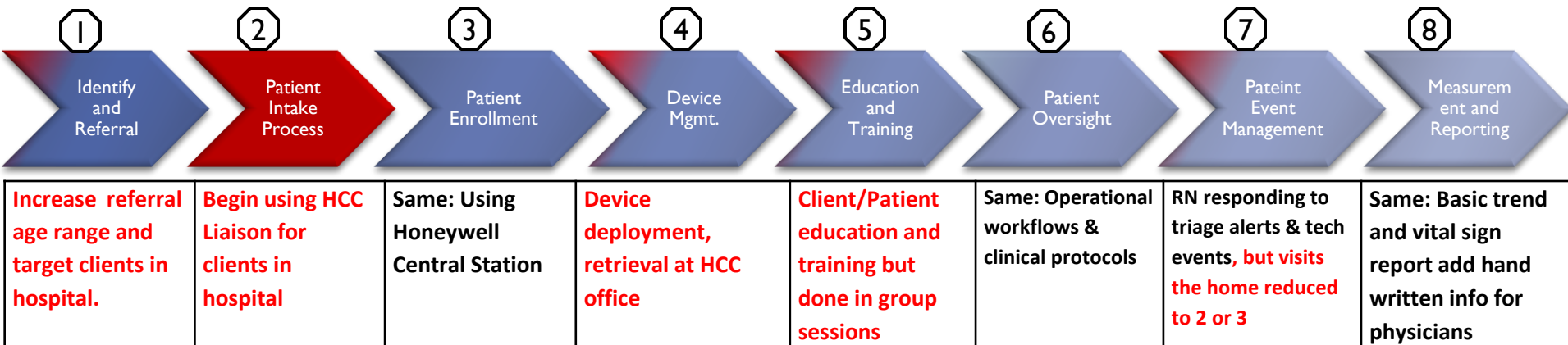
Opportunity for Partnership

- ▶ Ministry of Health
- ▶ TELUS
- ▶ Health Authorities
 - ▶ Island Health
 - ▶ Interior Health

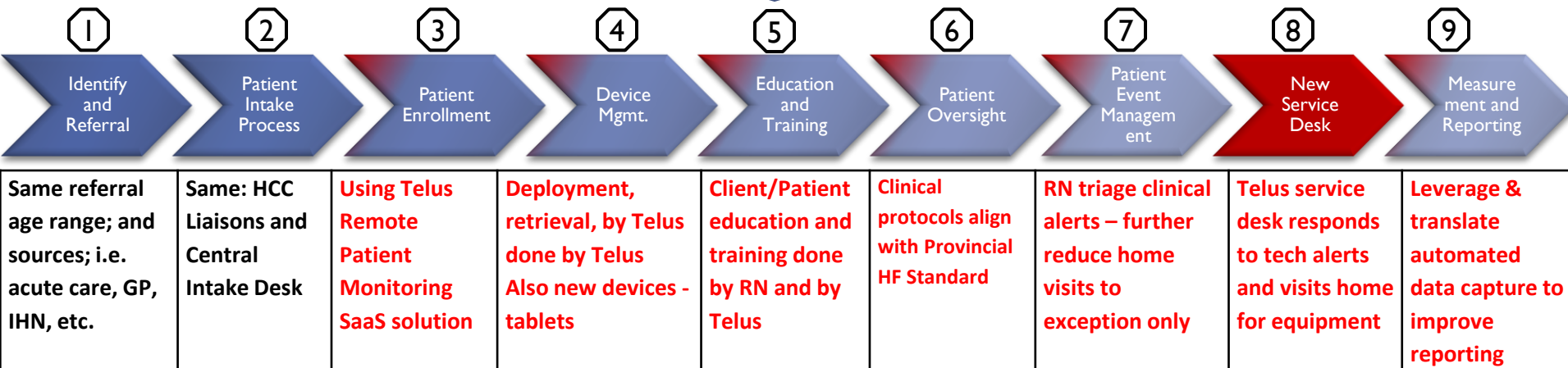


6 Years of Monitoring – 3rd Model

2011/ 2013 2nd Model



2013/ 2014 3rd Model



Heart Failure Zones

Check Weight Daily

- ▼ Weigh yourself in the morning before breakfast. Write it down. Compare your weight today to your weight yesterday.
- ▼ Keep the total amount of fluids you drink to only 6 to 8 glasses each day. (6-8 glasses equals 1500-2000 mL or 48-64 oz)
- ▼ Take your medicine exactly how your doctor said.
- ▼ Check for swelling in your feet, ankles, legs, and stomach.
- ▼ Eat foods that are low in salt or salt-free.
- ▼ Balance activity and rest periods.



Which Heart Failure Zone Are You Today? Green, Yellow, or Red

ALL CLEAR – This zone is your goal!

Your symptoms are under control.

You have:

- No weight gain of more than 4 lbs (2 kg) in 2 days.
- No shortness of breath.
- No swelling or increase in swelling of your feet, ankles, legs, or stomach.
- No chest discomfort, pressure, or pain.



Safe Zone

CAUTION – This zone is a warning

Call your doctor's office if you have any of the following:

- ▲ You gain more than 4 lbs (2 kg) in 2 days.
- ▲ You feel more short of breath than usual.
- ▲ You have increased swelling in your feet, ankles, legs, or stomach.
- ▲ You have a dry hacky cough.
- ▲ You feel more tired and don't have the energy to do daily activities.
- ▲ You feel lightheaded or dizzy, and this is new for you.
- ▲ You feel uneasy, like something does not feel right.
- ▲ You find it harder for you to breathe when you are lying down.
- ▲ You find it easier to sleep by adding pillows or sitting up in a chair.



Caution Zone

Doctor's Name

Office Phone Number

EMERGENCY – This zone means act fast

Go to emergency room or call 9-1-1 if you have any of the following:

- You are struggling to breathe.
- Your shortness of breath does not go away while sitting still.
- You have a fast heartbeat that does not slow down when you rest.
- You have chest pain that does not go away with rest or with medicine.
- You are having trouble thinking clearly or are feeling confused.



Danger Zone

Achievements

Clinical Support and Clinical Station (computer software) aligned with BC Heart Failure Zones

[http://www.gpscabc.ca/system/files/7.7%20FINAL%20Provincial%20Heart%20Failure%20zones%20Jan%202012%20\(COLOUR\).pdf](http://www.gpscabc.ca/system/files/7.7%20FINAL%20Provincial%20Heart%20Failure%20zones%20Jan%202012%20(COLOUR).pdf)

Preliminary Evaluation: 2013/14

- ▶ Emergency Department Visits: 65% reduction
- ▶ Hospital Admissions: 67% reduction
- ▶ Length Of Stay: 78% reduction

(Period covers 11 months of fiscal 13/14)

(Model 3 started in mid June)

(Comparison: 90 days pre and post)

(n=148 clients)



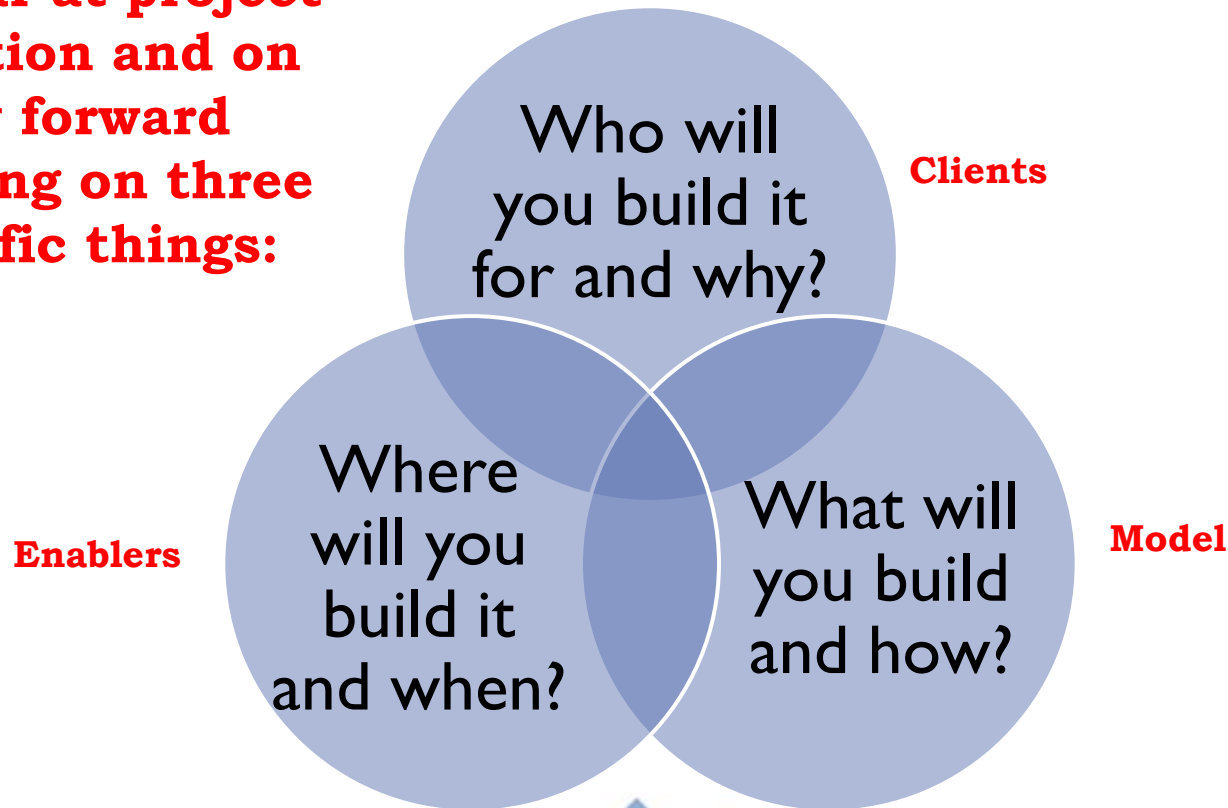
Status

- ▶ Updates to software to enhance quality of care and efficiencies
- ▶ Revisions to Service Desk model to better support clinicians
- ▶ Clinical Model – Starting to LEAN / PDSA
- ▶ Updates to Patient Station to improve usability
- ▶ Deliver Evaluation... Measurement Fine Details



High Level Lesson

Be clear at project initiation and on any forward planning on three specific things:



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WHO and WHY: Client Focus

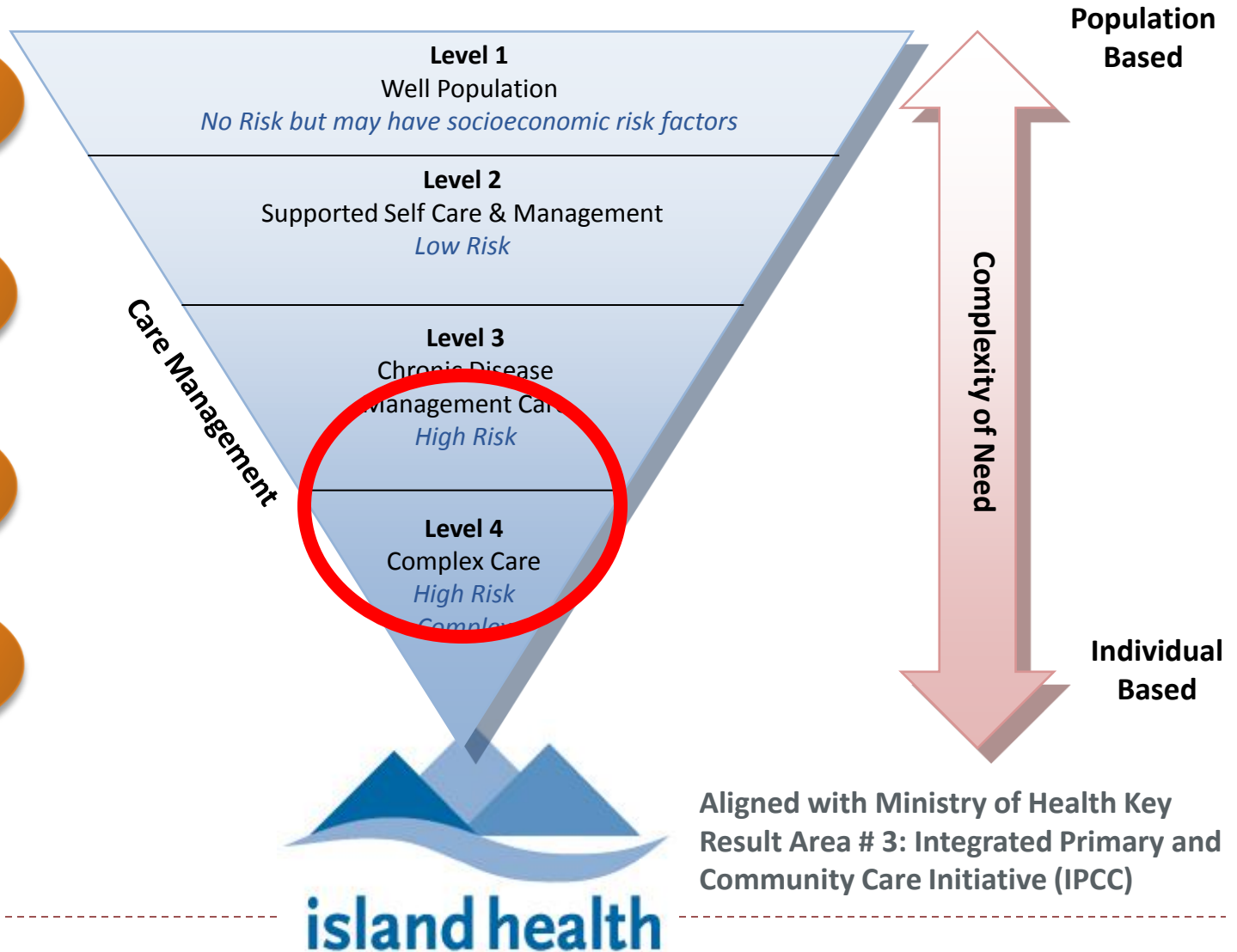
Goals of Care

Stay Healthy

Maintain Health & ↓ incidence of disease

↓ Disability & Complication

Support respectful end of life



WHAT and HOW: Model

- ▶ New Clinical Support tools
 - ▶ New Patient Devices
 - ▶ New Clinical Station (software application)
 - ▶ New Asset Management (Installation and Retrieval)
 - ▶ New Service Desk
-All supported by TELUS and MoH



Where and When: Enablers

- ▶ Funding
- ▶ Establish or Expand
- ▶ Partner
- ▶ Change Management

It's all about the client!



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