



Beam Me Up Scotty

**TeleRenal – Improving Access
for Rural and Remote Patients**

**BC Nephrology Days
October 11, 2007**

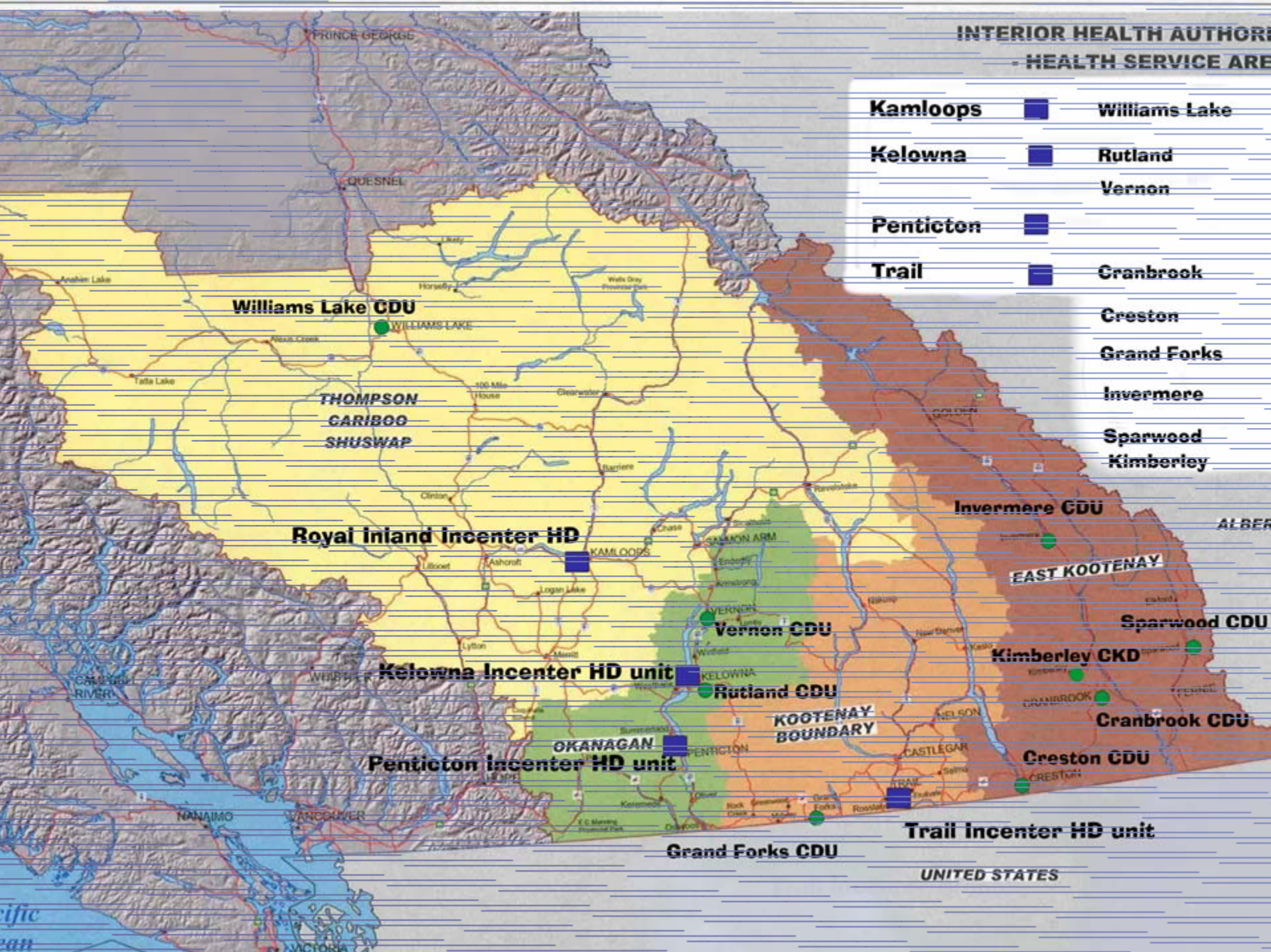
Sue Bannerman / Loretta Zilm

Agenda

- ◆ **Challenges of Renal Care Delivery in Interior Health**
- ◆ **Opportunity for Improvement**
- ◆ **TeleRenal Implementation**
- ◆ **Clinic Visit Format**
- ◆ **Future**



Challenges of Renal Care Delivery in Interior Health



Kamloops



Williams Lake

Kelowna



Rutland

Vernon

Penticton



Trail



Cranbrook

Creston

Grand Forks

Invermere

Sparwood

Kimberley

Challenges -Statistics

- ◆ 8 Nephrologists (2 share a practice)
- ◆ 360 dialysis patients
- ◆ 4 renal programs
- ◆ 8 outreach (community dialysis) units

Challenges - Geography

- ◆ 215,346.20 square kilometres
- ◆ Up to 3- 6 hours travel time 1 way from Incenters to CDU
- ◆ Treacherous, isolated winter driving conditions through high mountain passes

Challenges - Cost

- ◆ Dialysis patients (often frail and elderly) forced to travel from their home communities to larger centres to access routine nephrology care.
- ◆ Nephrologist travel time reduces direct renal patient care time.
- ◆ Nephrologist's inability to respond to Incenter emergencies when away.

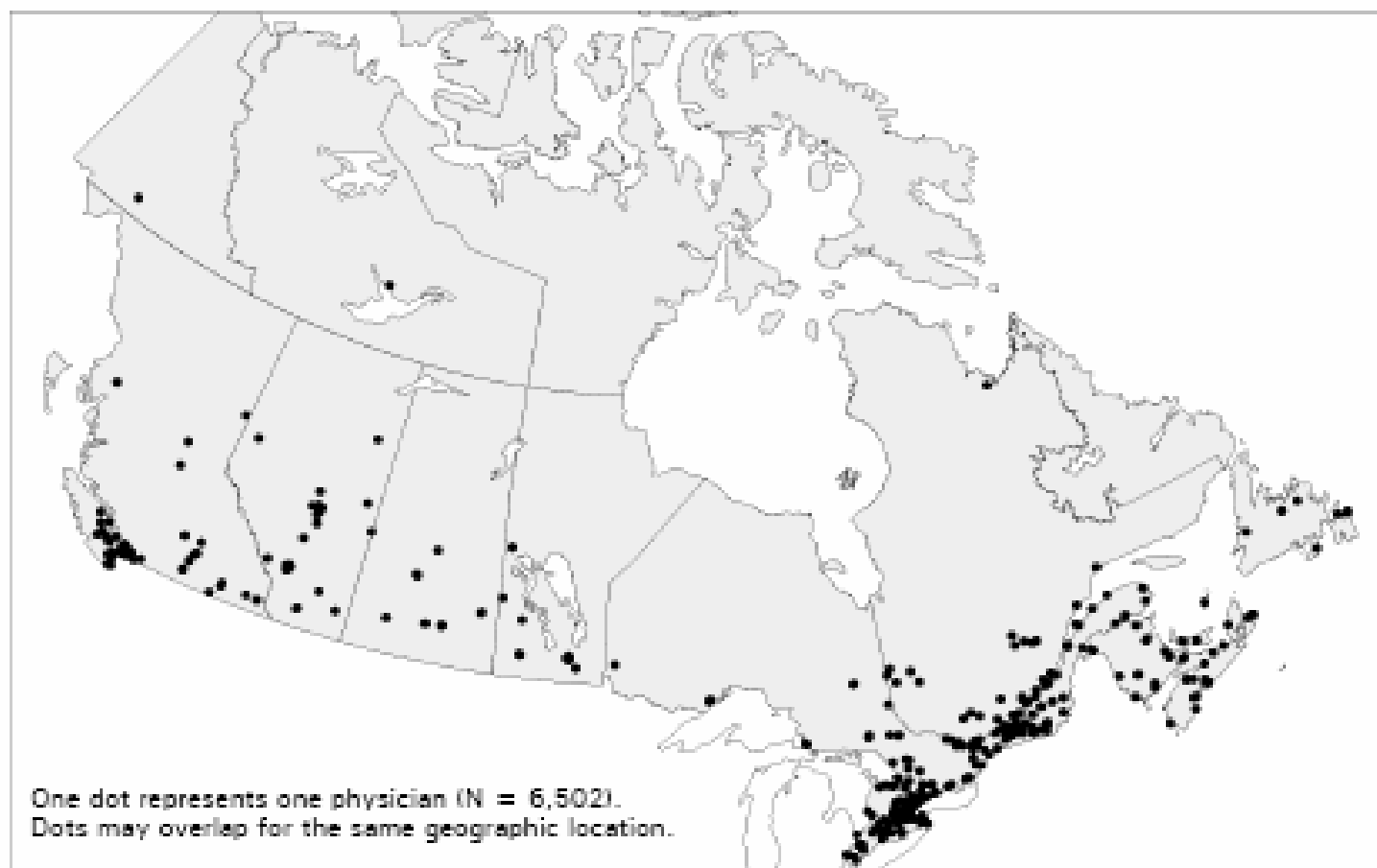


Opportunity for Improvement

Opportunity - Telehealth

The use of technology to deliver health and health care services, information and education nearer to home; reducing the need to travel.

Figure F.3. Distribution of Internal Medicine Physicians in Canada, 2004

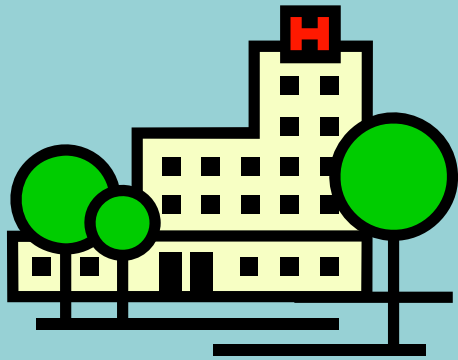


Note:

"Specialists" includes certificants of the Royal College of Physicians and Surgeons of Canada or the Collège des médecins du Québec (see section 2.2 for details).

Source: SMDB, CIHI.

Opportunity – Incenter Support



Trail Incenter

Video, EHR, Electronic Medical Devices



Grand Forks CDU



Creston CDU



Cranbrook CDU



Kimberley CKD

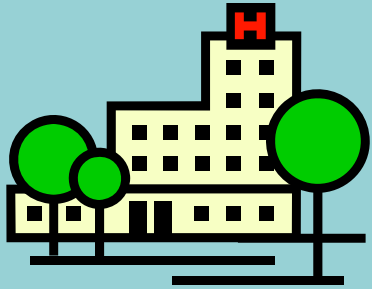


Sparwood CDU



Invermere CDU

Opportunity – Incenter Support

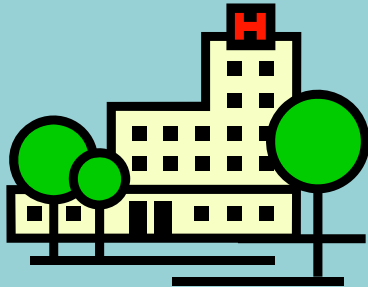


Kamloops Incenter

Video, EHR, Electronic Medical Devices



Williams Lake CDU



Kelowna Incenter

Video, EHR, Electronic Medical Devices



Vernon CDU

Opportunity – Technology Enablers

- ◆ **Secure, broadband connectivity**
- ◆ **Technological standardization**
- ◆ **Technology matched to needs of specialty**



Opportunity – Program Enablers

- ◆ **Project sponsors / manager**
- ◆ **Local administrative support**
- ◆ **Telehealth standards and guidelines**
- ◆ **Work flow recreation**
- ◆ **Effective training**
- ◆ **Adequate technical support**

Opportunity – Program Enablers

◆ Physician champions





TeleRenal Implementation

Implementation – Objectives

- ◆ **Timely, cost effective and efficient**
- ◆ **Reduced isolation**
- ◆ **Alternative method of service delivery**
- ◆ **Enhanced service and satisfaction**
- ◆ **Geographical / transportation barriers removed**
- ◆ **Integration improvement**
- ◆ **Leverage existing technical infrastructures**

Implementation – Objectives Cont...

- ◆ Increased access to nephrologists care
- ◆ More frequent multidisciplinary CP review
- ◆ Increased early intervention
- ◆ Increased renal patient satisfaction

Implementation – Objectives Cont....

- ◆ Increased access to CDU clinicians to Nephrologist and multidisciplinary team
- ◆ Increased team identity
- ◆ Increased job satisfaction
- ◆ Increased number of referrals from GPs.

Implementation - Deliverables

- ◆ Plan / budget
- ◆ Charter
- ◆ Site analysis / preparation
- ◆ Equipment procurement
- ◆ Hardware / software
- ◆ Standard booking/scheduling/registration processes
- ◆ Standardized visit protocol and checklist
- ◆ Communication/notification and education
- ◆ Training /support
- ◆ Promotion /celebration
- ◆ Evaluation



Clinic Visit Format



Clinic Visit Format

- ◆ **Site specific scheduling based on number of patients and need**
- ◆ **Initial CKD visit remains face to face for purpose of establishing patient / Nephrologist relationship**
- ◆ **TeleRenal visits supplemented by face to face in good weather**

Clinic Visit Format – Pre Visit

- ◆ **Hemodialysis Outpatient Assessment form completed and faxed to Incenter**
- ◆ **Latest copy of medication profile and Lab work from PROMIS printed and made available to Nephrologist to view**

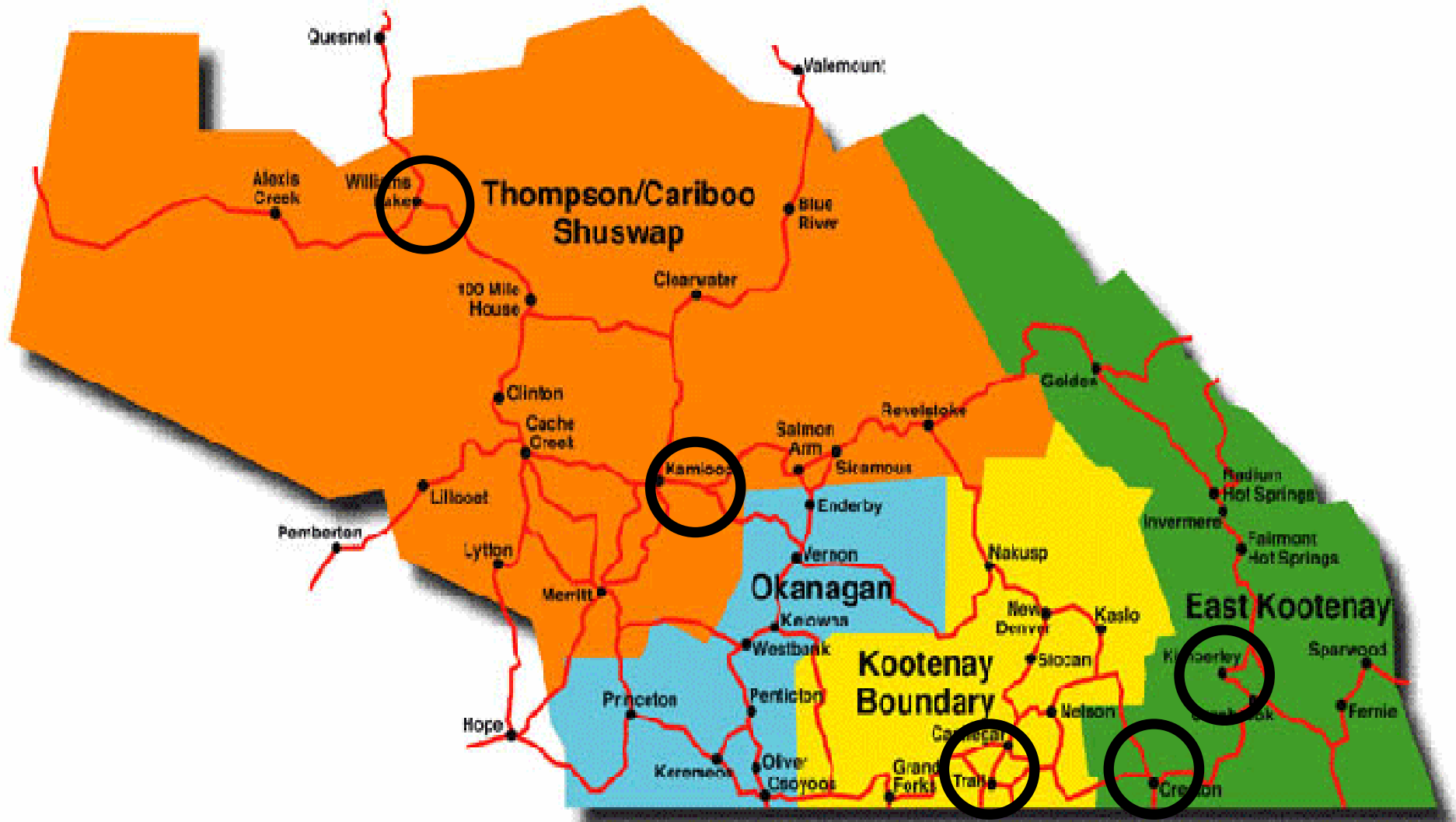
Clinic Visit Format – Day Of

- ◆ **Equipment turned on and connection established**
- ◆ **Peripheral equipment tested**
- ◆ **Copy of Hemodialysis Outpatient Assessment form, Medication profile, and Lab sheet and patients dialysis chart on hand**
- ◆ **Vital signs collected prior to connection with Nephrologist.**
- ◆ **Clinician facilitates Nephrologist in listening to chest sound via stethoscope**
- ◆ **Clinician facilitates discussion between the Nephrologist and patient during the appointment**
- ◆ **Patient is registered into EHR**

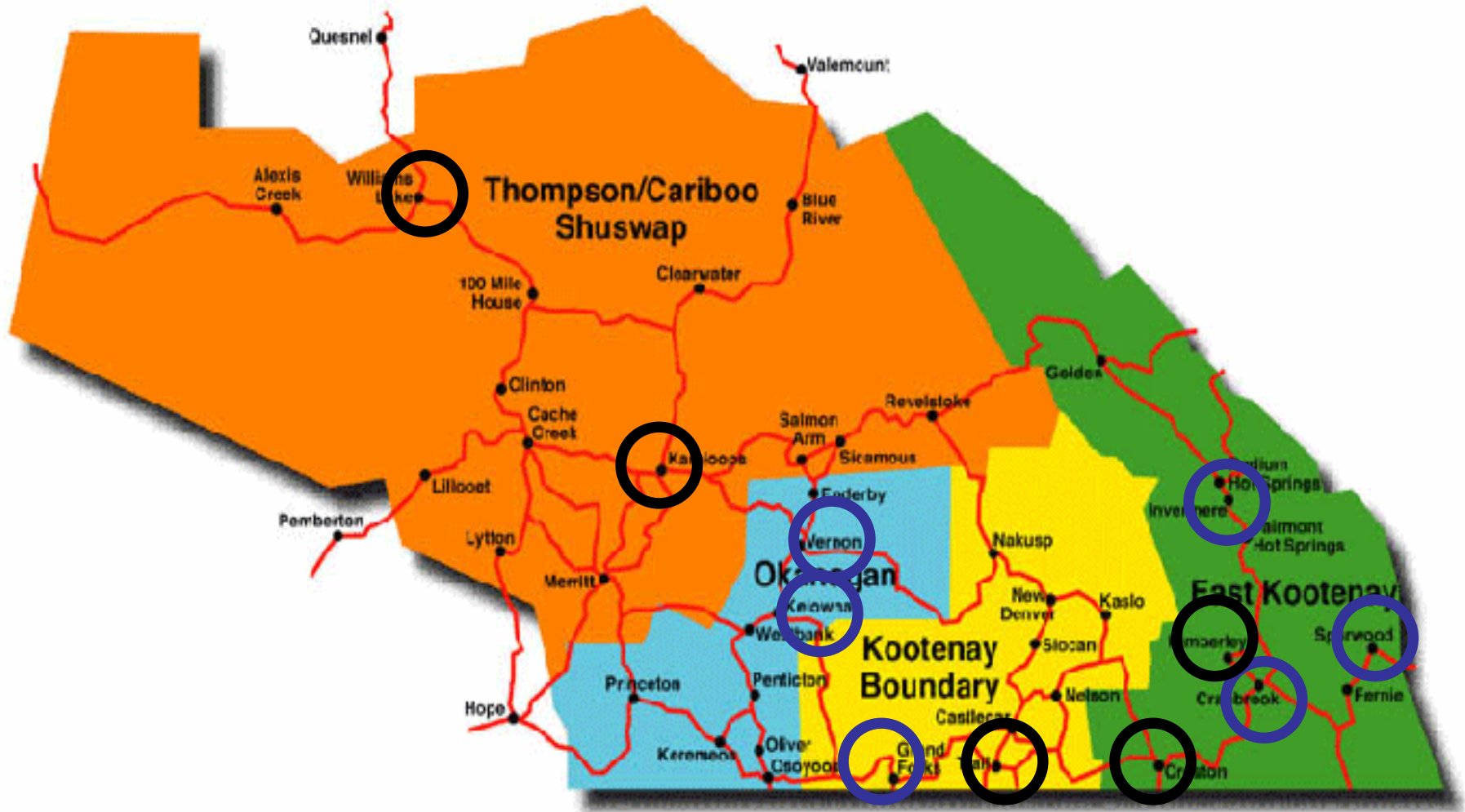


Current and Planned

Current–Kamloops to Wms Lake Trail to Creston / Kimberley



Planned – Trail to Grand Forks, Cranbrook, Invermere & Sparwood Kelowna to Vernon



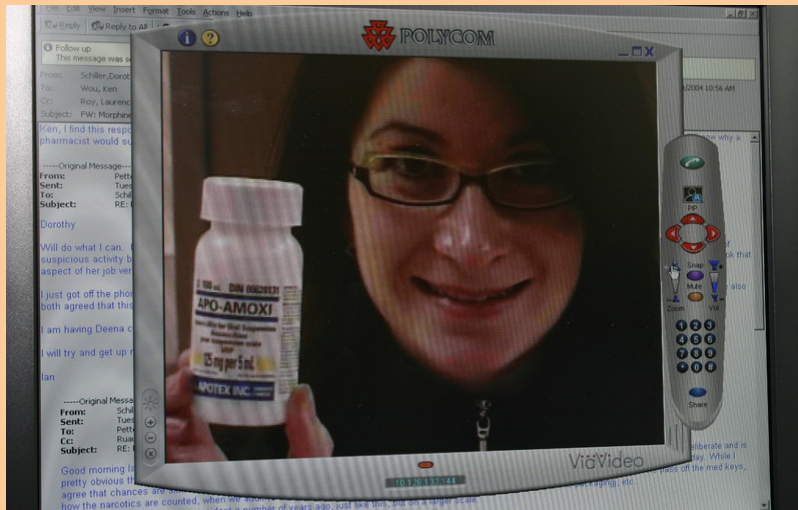


Future Possibilities

TelePharmacy



Opportunity for one centrally located renal pharmacist to provide consultation and support.



Future - TeleRenal Vascular Access



Future – TeleRenal Education





Thank you