



THE UNIVERSITY OF BRITISH COLUMBIA  
**PHARMACEUTICAL  
SCIENCES**

# The **AGILE** project & Precepting Models

Advancing experiential learning **I**n  
institutional **L** pharmacy practice **E**



a place of mind

Canadian Pharmacy  
Education & Research  
Conference

June 13th, 2013  
Michael Legal, PharmD  
AGILE Project Lead

- **AGILE Project Goal**
  - To develop recommendations that will inform new approaches to institutional experiential pharmacy education in British Columbia
    - Address capacity concerns & associated challenges



- Project Oversight
  - Initiated by the Faculty of Pharmaceutical Sciences at UBC
    - Steering Committee
      - Dr. Peter Zed, Dr. Peter Loewen, Dr. Angela Kim-Sing, Dr. Patricia Gerber
    - AGILE Project Lead (Dr. Michael Legal)
      - Health authority clinical pharmacist and experienced preceptor

- Project Deliverable

- A report providing recommendations in several key areas (November 2013)

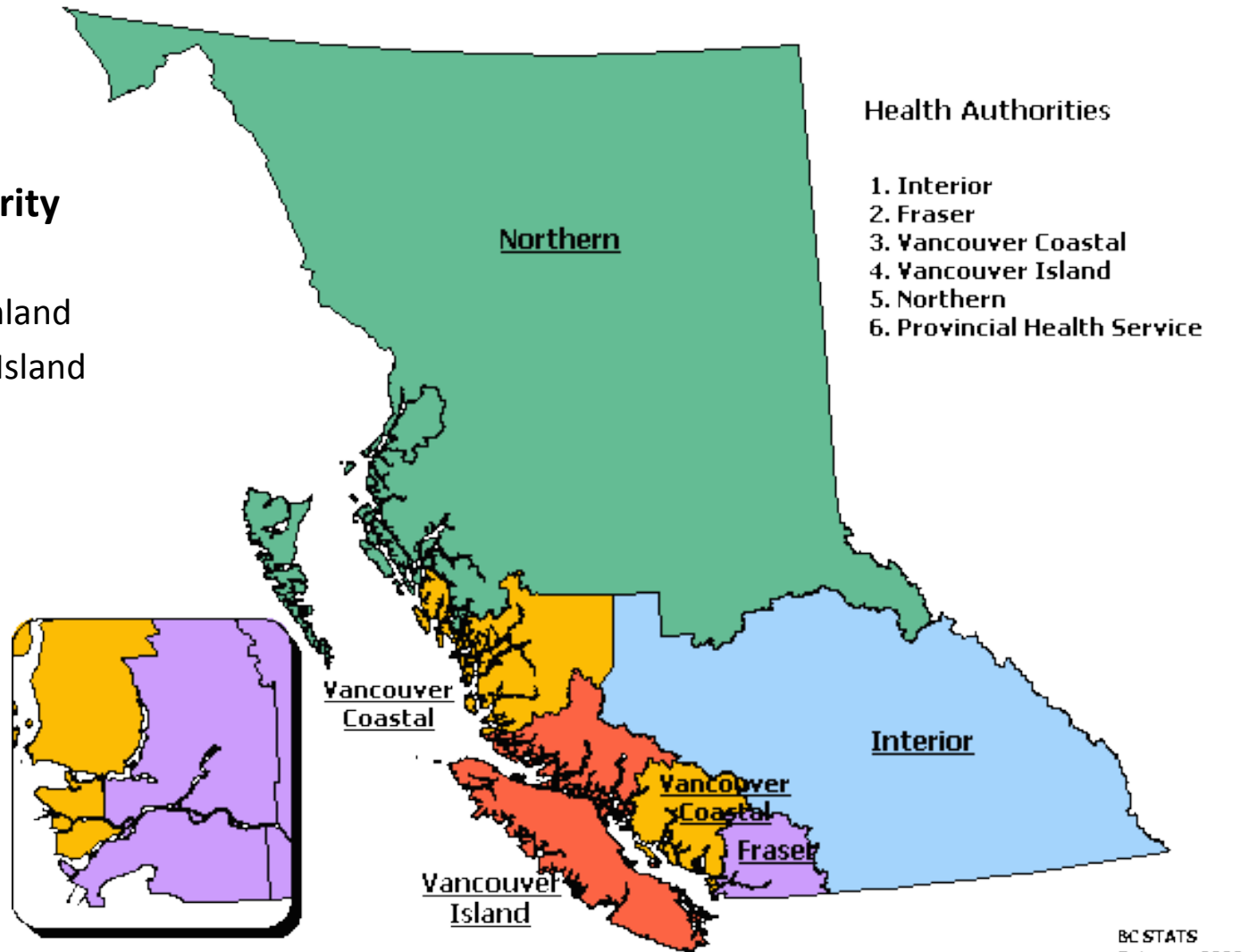
- Preceptor-learner models
- Supports for preceptors and learners
- Learning facilitator duties and responsibilities
- Preceptor training and credentialing
- Knowledge resources
- Preceptor incentives



# Institutional Pharmacy Practice in BC

## 800 health authority pharmacists

- 70% Lower mainland
- 15% Vancouver Island
- 10% Interior
- 5% North



- Institutional placements for pharmacy experiential programs in BC
  - UBC Faculty of Pharmaceutical Sciences
    - BSc Pharmacy program
      - One 4 week rotation (4<sup>th</sup> yr) per student (X 156 → 226)
    - Post graduate Doctor of Pharmacy Program
      - 8 students X 12 rotations per student
  - BC Pharmacy Practice Residency Program
    - UBC affiliated- health authority funded/administered
      - 30+ residents X 8 + rotations per resident

- Challenges
  - Limited capacity
  - Preceptors have competing demands
    - Existing responsibilities
    - Limited access to supports

# Factors to Consider

↑ enrolment

Capacity

E2P PharmD program

Learner needs

Preceptor  
needs



Workload

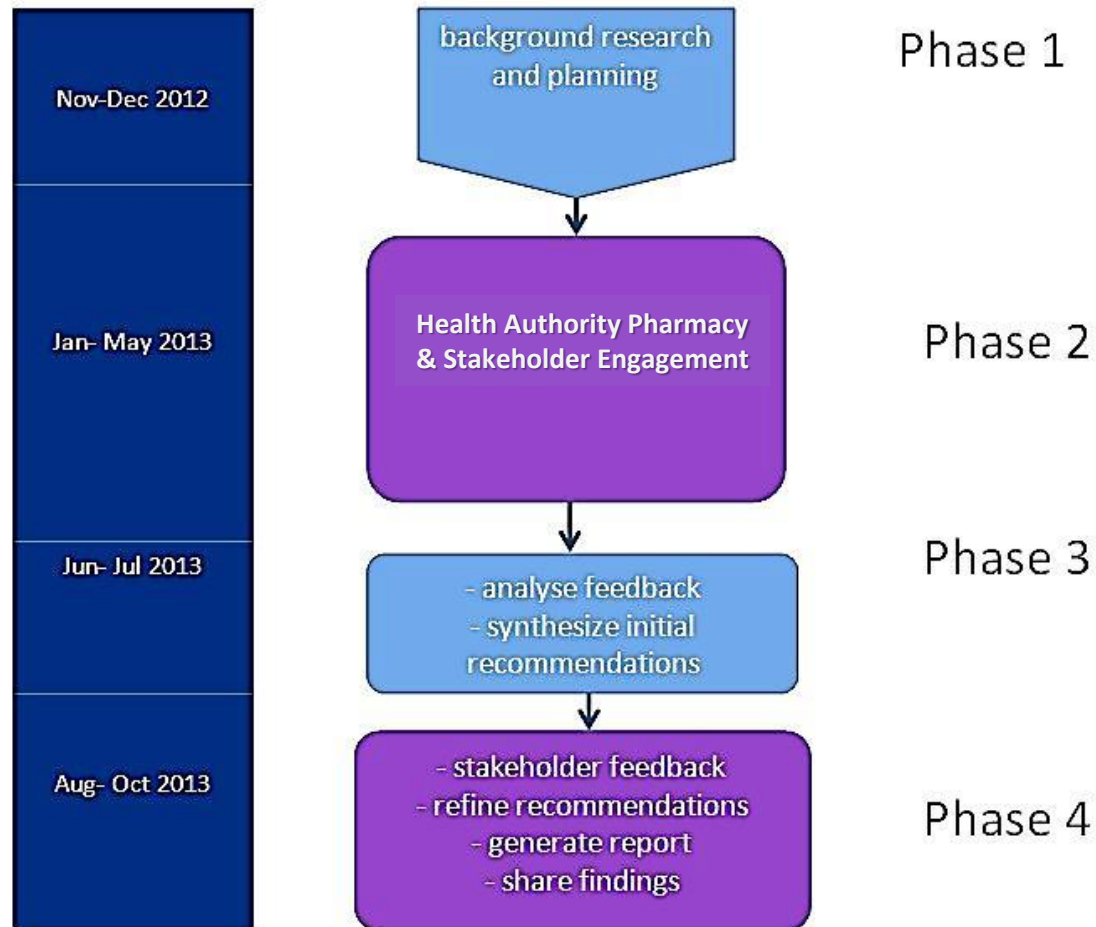
Support

Rotation models

Peer-assisted learning



## Project Overview- Phases and Timeline



- **Methods**

- Qualitative research approach

- Stakeholders

- Preceptors, learners, faculty, HA leadership

- Multiple engagement methods

- Identify themes from feedback

- Barriers and possible solutions

- Develop recommendations

- Stakeholder feedback + proven strategies  
(literature & experience elsewhere)



- Engagement methods

Focus groups

Electronic Survey

Experiential learning  
working groups

One on one  
interviews

Website discussion



THE UNIVERSITY OF BRITISH COLUMBIA  
PHARMACEUTICAL  
SCIENCES



a place of mind

<http://agile.pharmacy.ubc.ca>



# AGILE

Advancing experiential learnin**G**  
In institutional**L** pharmacy practic**E**



[The Site](#)

[Join the Conversation](#)

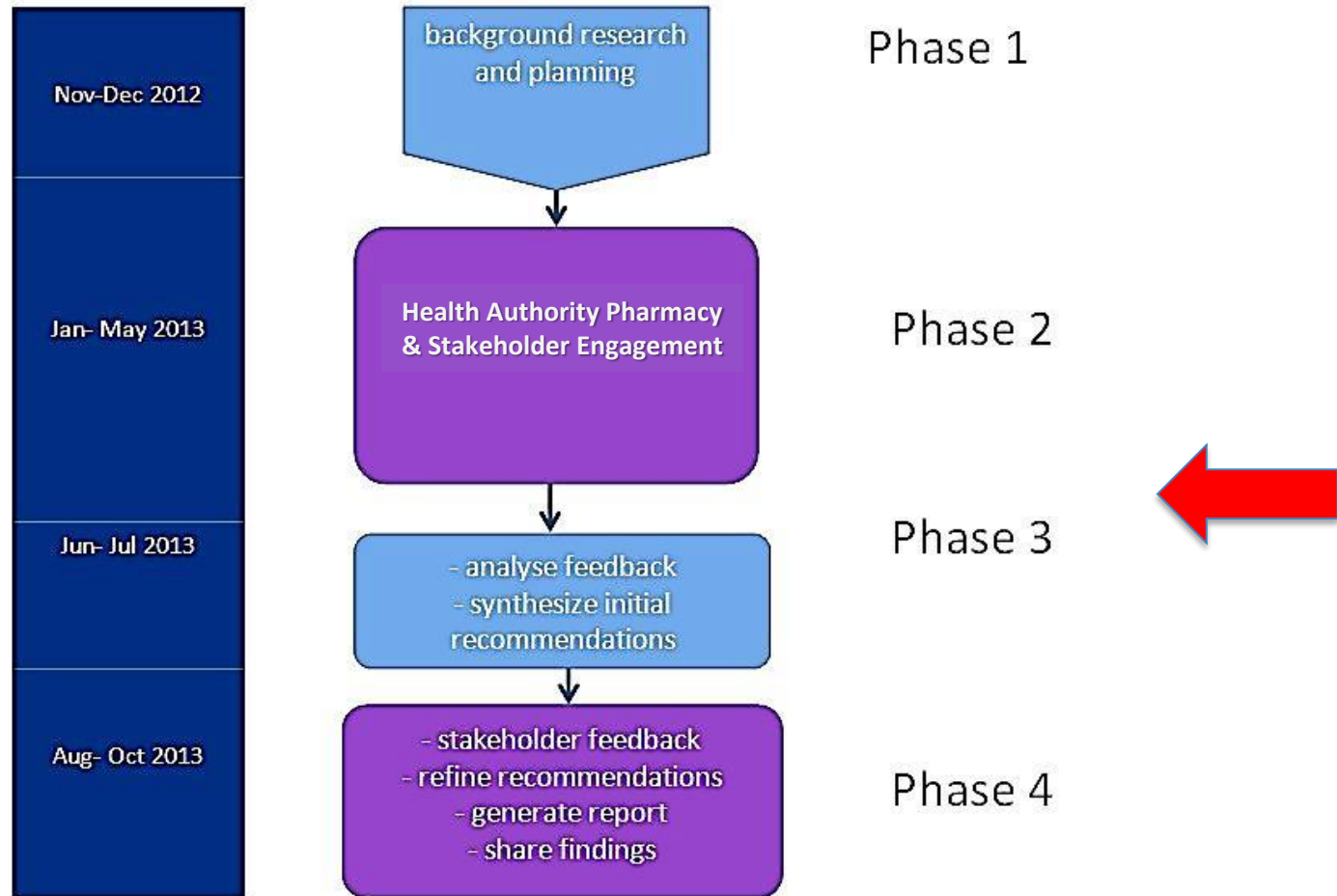
[Visit Schedule](#)

This website is dedicated to being an online resource and discussion forum for the AGILE project. Additional content will be added over time so please check back regularly.

## Welcome to AGILE

AGILE stands for Advancing Experiential Learning In Institutional Pharmacy Practice. The goal of AGILE is to develop recommendations that will inform a redesign of institutional experiential pharmacy education in British Columbia.

## Project Overview- Phases and Timeline



- Some of what we've learned so far...
  - Strong commitment to experiential education
  - Competing demands on preceptors' time
  - Limited physical space
  - Student preparation for institutional placement is a challenge (especially in BC context)
  - Preceptors & learners seem open to alternate precepting models but additional support needed

# Precepting Models in Pharmacy: What can we learn from other health disciplines?





- Limited availability of clinical placements

- Common problem

- Strategies

- Strengthen and formalize faculty-site partnerships
- Alter experiential program model
- Adopt novel precepting models
- Integrate learners into the workflow of the site



- Terminology
  - Experiential program model
    - The larger context in which placements occur
      - Number, duration of rotations, co-op programs
  - Precepting model
    - The configuration of the team of preceptor(s) and learner(s) during the placement
  - Preceptor to learner ratio
    - 1:2 (1 preceptor with 2 learners concurrently)



## – Tiered models

- 2 or more learners of different levels
- Senior learner precepts junior learner(s)

## – Extension

- Learners provide patient care that
  - “extends” reach of care to more patients
  - Is more comprehensive

- Pharmacy Precepting Model
  - Master-apprentice model (1:1)
    - Dominant model in Canada
      - Traditional roles
      - Finite, technical knowledge
      - We teach how we were taught
      - Little impetus to change



- Why does the model matter?
  - Limitations to traditional model (1:1)
    - Inflexible
      - Enrolment, E2P PharmD programs
    - Limited peer-assisted learning
  - U.S. residency capacity stakeholder meeting
    - #1 Recommendation: “Adopt a medical model with an attending pharmacist and delegated responsibilities to residents”

- “Medical Model”
  - Tiered learning
  - Team of learners with hierarchy
    - Attending physician
    - Senior resident
    - Junior residents, medical students
  - Teaching hospitals
  - Service component



- Medical Model cont'd
  - Advantages
    - Efficient- concurrent service and learning
    - Attending physician does not have to be present continuously (research, clinic work)
  - Disadvantages
    - Service versus education
    - Hierarchy, variable oversight

# Experiential Models in Nursing

Model	Ratio	Advantages	Disadvantages
Faculty Supervised Practicum “mother goose model”	1: 6+	<ul style="list-style-type: none"><li>• Efficient teaching of basic and technical skills</li><li>• Minimal impact on clinician workload (faculty instructor)</li></ul>	<ul style="list-style-type: none"><li>• Not part of existing team</li><li>• Instructor not always familiar with site/unit</li><li>• Not suitable for advanced skill development</li></ul>
Preceptorship	1: 1	<ul style="list-style-type: none"><li>• Clinician models practice</li><li>• Learner is part of the team</li><li>• Responsible for patients</li></ul>	<ul style="list-style-type: none"><li>• Requires ++ preceptors</li><li>• Preceptor burnout/ competing workload</li></ul>
Collaborative Education Unit	2+: 2+	<ul style="list-style-type: none"><li>• Learners work with different preceptors</li><li>• Peer assisted learning</li><li>• Faculty-clinician collaboration</li></ul>	<ul style="list-style-type: none"><li>• ++ organization &amp; coordination</li><li>• Communication: learners &amp; multiple preceptors</li></ul>



- Occupational Therapy & Physiotherapy Models
  - Multi-placements (1:2, 1:3, 2:2)
  - Other models
    - Student as educator (tier)
    - Role emerging
  - Systematic review 2007:
    - “No ‘gold standard’ model for clinical education.”

# Experiential Models in OT and PT

Model	Advantages	Disadvantages
Traditional <b>1:1</b>	<ul style="list-style-type: none"><li>• Individualized rotation for learner &amp; dedicated preceptor attention</li><li>• <b>Preferred by advanced learners</b></li></ul>	<ul style="list-style-type: none"><li>• Learner dependent on one educator for their learning</li><li>• ↑ direct time commitment by preceptor than other models</li></ul>
Multi- placement <b>1:2/1:3</b>	<ul style="list-style-type: none"><li>• ↑ number of placements</li><li>• More desirable to students</li><li>• ↑ cooperation, peer learning and independence</li></ul>	<ul style="list-style-type: none"><li>• Personality conflict, competition</li><li>• ↑ planning and paperwork</li><li>• May not be suitable for all areas</li></ul>
Team <b>2:1/2:2</b>	<ul style="list-style-type: none"><li>• Shared responsibility for teaching</li><li>• Adaptable (preceptor absence)</li><li>• Exposure to different approaches</li></ul>	<ul style="list-style-type: none"><li>• Complex to coordinate and to evaluate</li><li>• Communication/ consistency</li></ul>

- Other OT & PT precepting models
  - Role emerging placement
    - Work to organize, communicate expectations, monitor learner progress
- Technologically assisted models
  - Videoconferencing, “Skype”
    - Added benefit in remote areas
  - Virtual learning teams
    - Social media



- **Summary**

- **Variety of models used across disciplines**

- **1:1**

- Dominant model
      - May be preferred by advanced learners

- **Multi-placements 1:2-1:3**

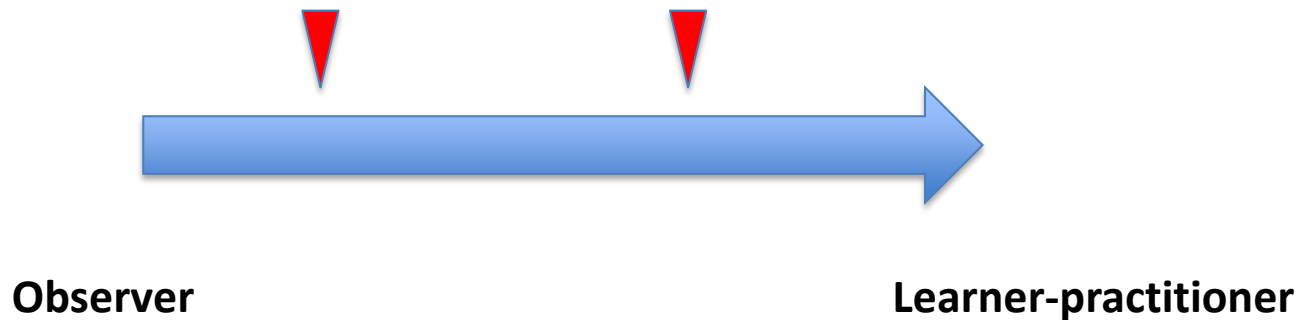
- Learners prefer this model over 1:1 (1:2>1:3)
      - ↑ peer-assisted learning, ↑ capacity
      - ↑ planning, competition among learners

- **High ratio models (1:6 to 1:8)**

- May be useful for introductory experiences where “exposure” is goal and basic skills taught

- Tiers
  - ↑ capacity, learners develop precepting skills,
  - ↓ teaching burden for 1° preceptor
- Shared precepting (2+:2+)
  - Preceptors can “tag-team”
- Role emerging placements
  - Extend service, develop autonomy of learner
  - Oversight may be a challenge

- Other important considerations
  - Extension and provision of service
    - Valuable when possible (mutual benefit)
      - Relates to learner practice-readiness
      - Learner site/environment-readiness



## – Experiential program structure

- Rotation blocks schedule
- Overlap of rotations
- ↑ rotation length
- Multiple rotations at same site

# **Development and Evaluation of a Student Pharmacist Clinical Teaching Unit Utilizing Peer-Assisted Learning**

*Adrienne J Lindblad, Jason M Howorko, Richard P Cashin, Cornelius J Ehlers, and Cheryl E Cox*

CJHP 2012;64:446-50

## **A Collaborative Approach to Improving and Expanding an Experiential Education Program**

Cheryl E. Cox, MBA,<sup>1</sup> Adrienne J. Lindblad, PharmD<sup>1,2</sup>

<sup>1</sup>Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton, Alberta Canada

<sup>2</sup>Red Deer Regional Hospital Centre, Alberta Health Services, Red Deer, Alberta, Canada

Am J Pharm Educ 2012;76:1-5



# Implementation of a Near-Peer Teaching Model in Pharmacy Education: Experiences and Challenges

*Christine Leong, Marisa Battistella, and Zubin Austin*

CJHP 2012; 65:394-98.

- What might work in BC?
  - New default model for E2P students 1:2?
  - Use “small” tiers (2-3) when it makes sense
    - Physical space is a barrier for larger tiers
    - Include a precepting rotation in residency programs
  - Preceptors should choose and adapt models that work for them e.g. 2:2 shared precepting
  - Consider “mother goose” model for future IPPEs

- AND
  - ↑ support for preceptors and learners
  - Intensive orientation to prepare learners for institutional placement
  - Moving forward
    - Curriculum redesign
    - Leverage technology
    - Pilot and study models!

# Thank you!

**Michael Legal** Project Lead- Advancing Institutional Pharmacy  
Experiential Learning in BC

[michael.legal@ubc.ca](mailto:michael.legal@ubc.ca)

Phone 604 827 1848

Fax 604 822 3035

Faculty of Pharmaceutical Sciences

The University of British Columbia- Vancouver Campus

2405 Wesbrook Mall, Vancouver, BC Canada V6T 1Z3

<http://agile.pharmacy.ubc.ca>