

# Tools in Quality Assurance

**Hong Kong 2010**

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Workforce Innovation and Reform

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# Where are we now?

- Total global expenditure health professional education is \$100bn
- 2% health expenditures worldwide
- Scarcity of research and evidence
- Innovation without QA, without robust evaluations
- Slow progress

QA..

...offers an unparalleled  
opportunity to understand our  
strengths and challenges  
explore bold, innovative ways to  
educate for the future in a  
socially responsible and  
accountable way...

# overview

- Quality assurance framework
- Tools for QA
- Conclusions







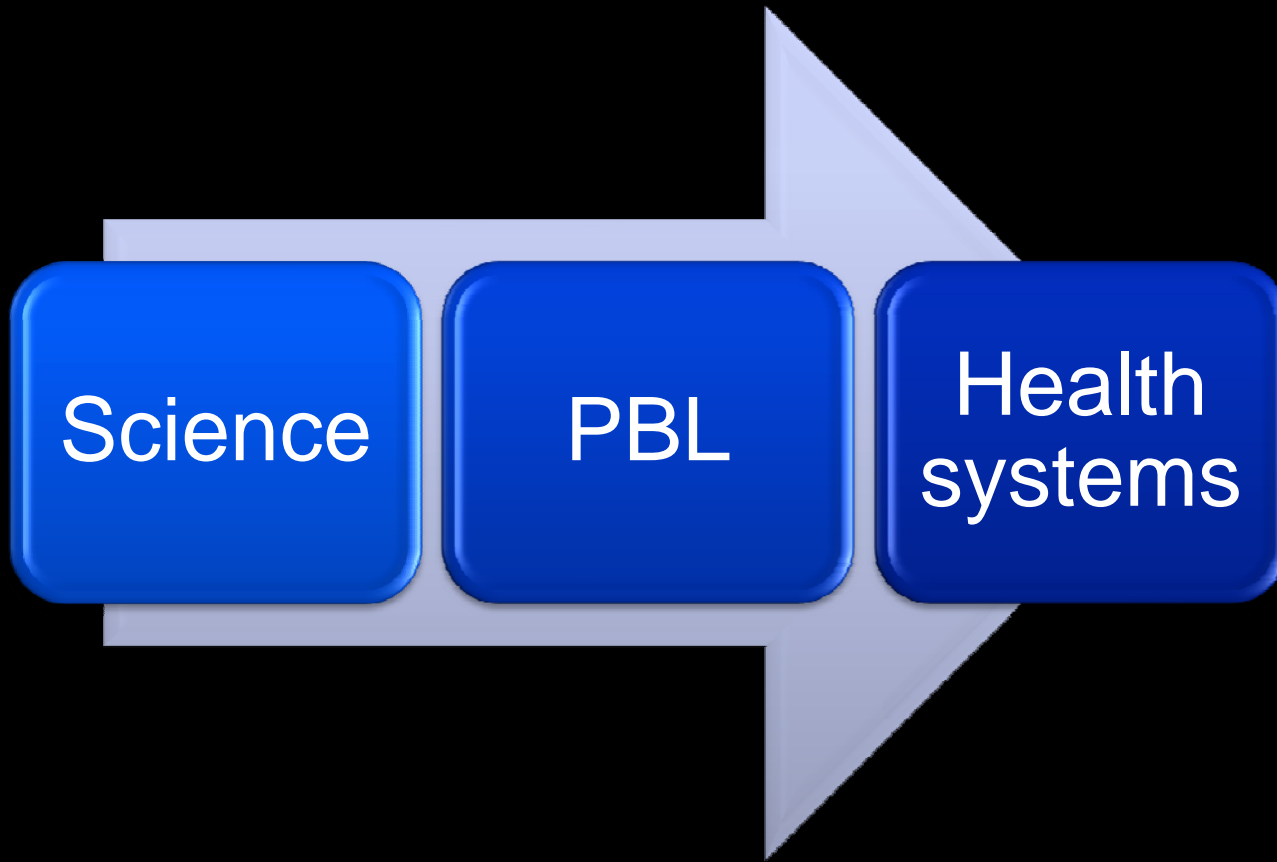
# How?

- Do we move to developing the next paradigm and
- ensure that we meet the demands for a strong evaluative system?



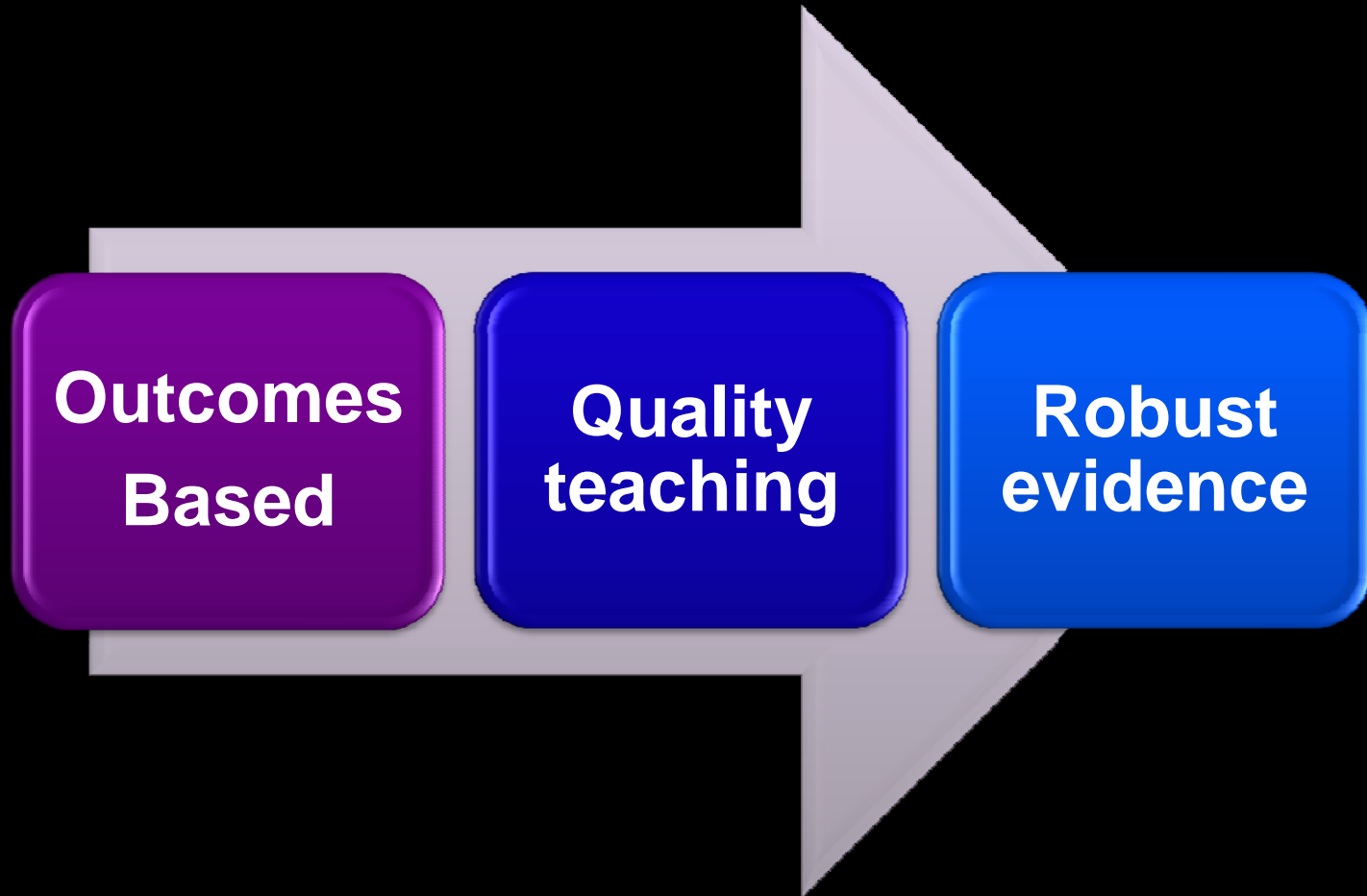
# yesterday

- Three paradigms



# Today

- Three currents



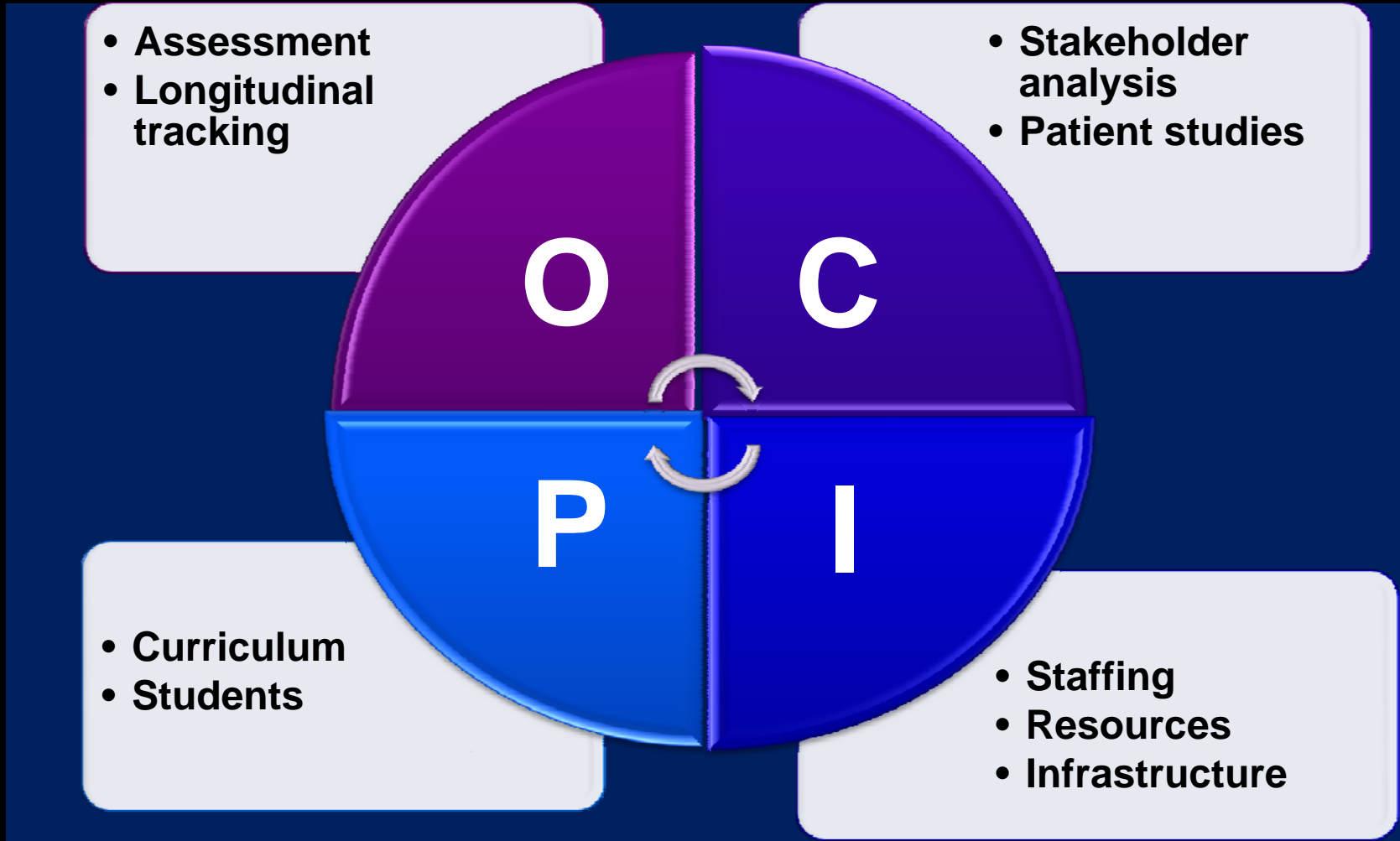




# Quality assurance system at UOW

- Framework (program logic)
- Plan for data collection
- Feedback
- Collaboration
- Power to advise the Dean
- Gatekeeper -evaluations concerning students

# Program logic



# Context

- Stakeholder analysis – semi structured interviews
- Patients views of training students in clinics
- Hudson JN Farmer EA et al MJA 2010

# Inputs

- Staffing?
- Supervision quality?
- Infrastructure?
- Resources?



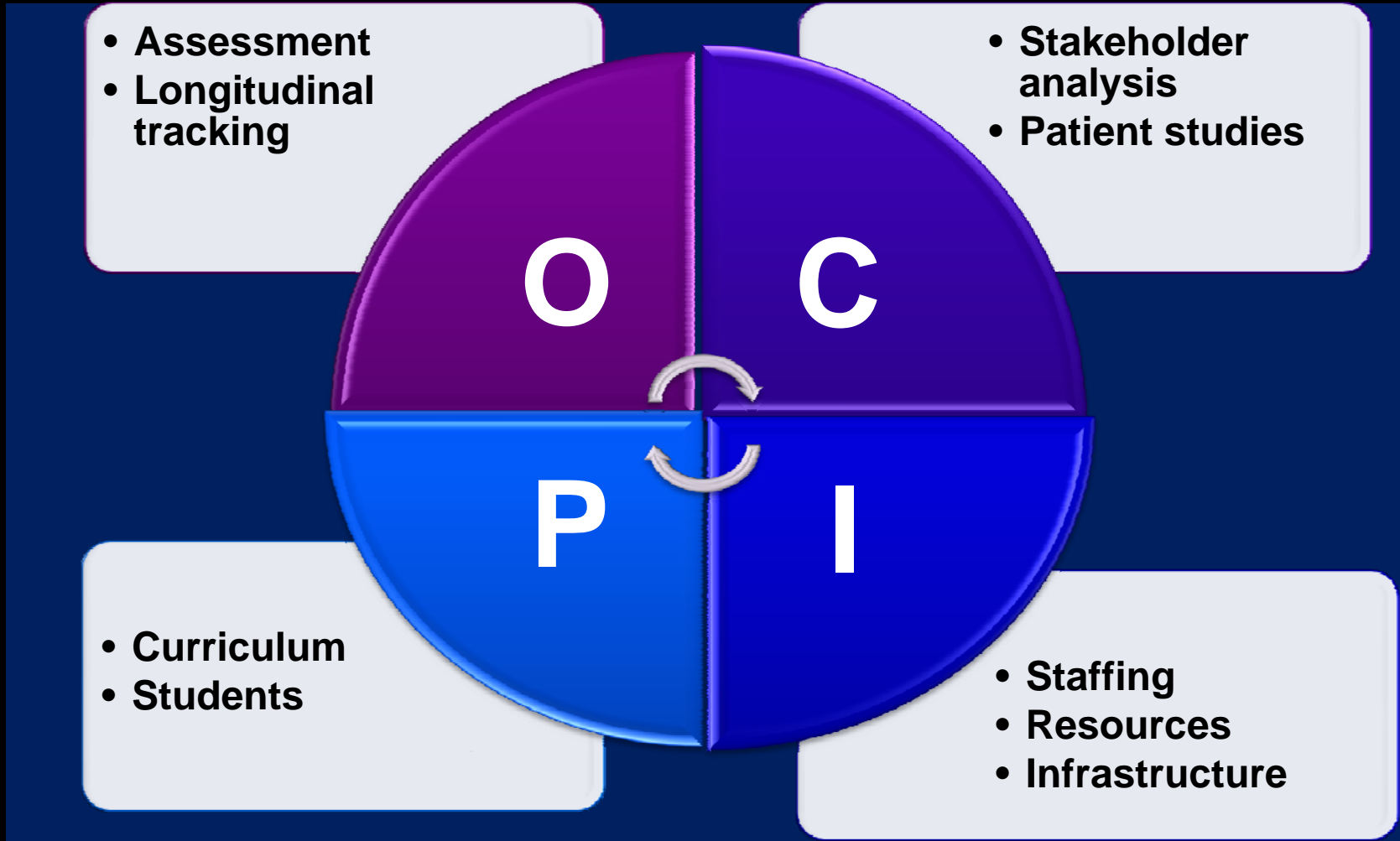
# Quality teaching

- Who / where are our supervisors?
- How do they relate to teaching?
  - In every day work
  - In scholarship
  - As a community of practice?
- How do we establish best practice models and value supervision?
- What is leadership in supervision?

# Tools?

- Identify and track supervisor pool
- Conduct needs analysis
- Systematically examine supervision models
- Summit on Faculty development
  - Models of FD
  - Systematised evaluations
- Valuing and rewarding – honorary status promotion

# Program logic





**22 Graduate qualities**  
**Outcomes in four themes**

**93 Clinical Problems**

**Problem  
blueprints**

**PBL  
Cases**

**Learning  
Activities**

**Clinical  
skills**

**Resources**



# How do we know?





## Type 1 Diabetes and emergencies in diabetes

### Type

Lecture

### Contact Facilitator

Professor Robert Moses

### Fortnight(s)

Phase 2.13-14

### Additional Facilitators

None

### Overview

This lecture builds on the foundations laid in the type 1 diabetes lecture in Phase 1 last year. It will provide more detailed insight into the clinical aspects of type 1 diabetes, in particular the clinical presentations, diagnosis and treatment strategies. A particular focus will be on the main types of emergency states that are associated with diabetes (and its treatment), such as ketoacidosis, hyperglycaemic hyperosmolar state and hypoglycaemia.

### Primary Learning Outcomes

By the end of this Learning Activity students should be able to:

- Describe the typical clinical presentations occurring in type 1 diabetes. [MS04]
- Explain the diagnostic tests available for diabetes and their value for assessment of patients. [MS06]
- Explain the rationale for the core treatment strategies used in the management of type 1 diabetics. [MS07]
- Describe the underlying pathogenesis and the management strategy for diabetic keto-acidosis and other emergency states associated with diabetes. [MS07]

### Assumed Knowledge

Lectures 'Type 1 Diabetes' and 'Type 2 Diabetes' (Phase 1, URGE Block)

### Pre-Readings

Chew SL & Leslie, D. Clinical Endocrinology and Diabetes, an Illustrated Colour Text, Churchill Livingstone 2006. pp. 60-61, 86-87

### Extension Readings

For the ambitious:

McCance & Huether, Pathophysiology, 5th ed. 2006, Chapter 21, pp. 710-714

Greenspan, FS & Gardner DG, Basic and Clinical Endocrinology, 7th ed. 2004, McGraw-Hill, Chapter 17, pp 678 - 685, 711 - 723

### Links to Resource(s)

- Slides - Type 1 Diabetes and emergencies in diabetes [Info]

### Learning Activity Audio

- Type 1 Diabetes and emergencies in diabetes [Info]

### Problem(s)

17.Loss of Consciousness/Coma, 91.

Learning Activity  
Outlines

Metadata tags to  
four themes

OLE

Metadata tags to  
clinical problems









## Resource Centre

### Search

The query can contain wildcards (\*, ?), e.g. "ca  
[More searching help and](#)

Include non-live items

### Results showing

GL.1

GL.3

GL.5

GL.7

URGES.1

URGES.3

URGES.5

URGES.7

URGES.9-

URGES.11-

HI.1

HI.3



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Cohort: 2007



# Determinants of Blood Pressure variability

### Type

Anatomy

### Contact Facilitator

Darryl McAndrew

### Fortnight(s)

CVSR.3-4

### Additional Facilitators

Peter McLennan

### Overview

Active session giving practice at repetitive blood pressure measurement under different conditions and evaluation of contributors to variability, both within and between patients and between practitioners.

### Objectives

- 1) Describe the key contributors to (non disease-related) variations in blood pressure measurement within and between subjects, between practitioners, and between visits
- 2) Describe and explain the changes in blood pressure and heart rate that occur in response to physiological stressors such as postural change.
- 3) Explain the importance of repeated measures in the identification of hypertension.

### Assumed Knowledge

Auscultatory measurement of blood pressure  
 Determinants of arterial blood pressure  
 Mechanisms of reflex regulation of blood pressure  
 Structure and function of the heart and circulatory system.

### Pre-Readings

1. Pickering, T.G. (1994) Blood pressure measurement and detection of hypertension. The Lancet. 344:31-35. (can be found via [WEB Library/ catalogue/ Journal Title / lancet / EJournal](#))





# Curriculum Mapping (Clinical Speciality)

disciplines

Fortnights	Allergy/ Immunology	Anatomy	Biochemistry	Embryology	Epidemiology	Genetics	Haematology	Histology	Microbiology/ Infectious Diseases	Molecular Biology	Pathology, Anatomical & Clinical	Pharmacology	Physiology	Psychology	Sociology
CVSR.1-2	1	1	15	9	2	3	1	1	4	3	13	6	12	3	2
CVSR.3-4		1	13	9	3	5	1	2	2	1	13	8	15	2	1
CVSR.5-6	1	12	6	7	5	2	1	4	1	2	11	4	13	4	3
CVSR.7-8		3	18	9	4	3	1	4	5	2	12	7	13	3	2
CVSR.9-10	2	5	11	4	2	5	1	2	3	5	12	2	8	2	2
GL.1-2	1	2	12	7	3	2		8	3	2	9	4	18	4	3
GL.3-4		9	16	1	1	2	3	6	1	4	7	3	16	6	1
GL.5-6		7	13	1	4	1	3	4	2	1	10	12	14	2	1
GL.7-8	2		9	4		3	2		3	4	1	14	4	10	5
HI.1-2	5	6	5		1		12	2	1		12	4	8	5	4
HI.3-4	2	8	6	2	2	2	2	12	2	3	1	10	2	6	3
ICE			1							1		1	1	1	1
Intro.1-2	9		5	1	1	2		2			1	3	3	8	4
Intro.3-4	1	2	6	12	3	8	4	6	4	8	11	3	5	2	4
Intro.5-6	6	6	7	2	4	4	5	7	8	8	12	3	8	3	5
MNS.1-2	4	14	4	1	6			1	3		9	3	6	6	4
MNS.11-12			3									2		2	20
MNS.3-4	1	3	7	1	1	4		1	2	4	15	5	3	4	2
MNS.5-6	1	2	15	6	1	1	1	2		1	12	2	15	5	1
MNS.7-8			18	2	1		2				14	4	15	5	
MNS.9-10		10	1		2				3	1	16	2	12	10	



# Scaffolding student experience into learning frameworks- the clinical log

## Clinical Log

Home | User: kates (admin) Log Out

### Most Recent Entries

Metadata tags to 93 clinical problems

										Live	Draft
Action	Date	Location	Problem(s)	Gender	Age	Confidence	Involvement	Patient #	Diagnosis		
<input type="checkbox"/>	28/09/2009	GP Practice	09. Pain; 20. Fall/Collapse	Female	65 - 74	4	Examination	15	Broken hip		
<input type="checkbox"/>	25/09/2009	Community Agency	25. Visual Disturbance/Impairment	Male	Premature - 1	5	Observation	12	Visual cortex lesion		
<input type="checkbox"/>	25/09/2009	Community Agency	11. Joint Pain/Swelling; 21. Headache	Female	5 - 14	4	History	22	Influenza		
<input type="checkbox"/>	13/09/2009	Campus	56. Raised Blood Pressure	Female	65 - 74	2	History	15	Hypertension		
<input type="checkbox"/>	04/09/2009	Other	68. Enlarged Liver; 70. Jaundice	Male	25 - 44	4	History	1	Chronic liver failure		
<input type="checkbox"/>	31/08/2009	Hospital	89. Weight Gain; 91. Abnormal Blood Sugar	Female	25 - 44	3	Observation	5	Type II diabetes		

« First « Prev Page: 1 of 232 Next » Last »

### Continuity of Care

Patient #	Number of Entries
1	4
2	3
3	7
4	2

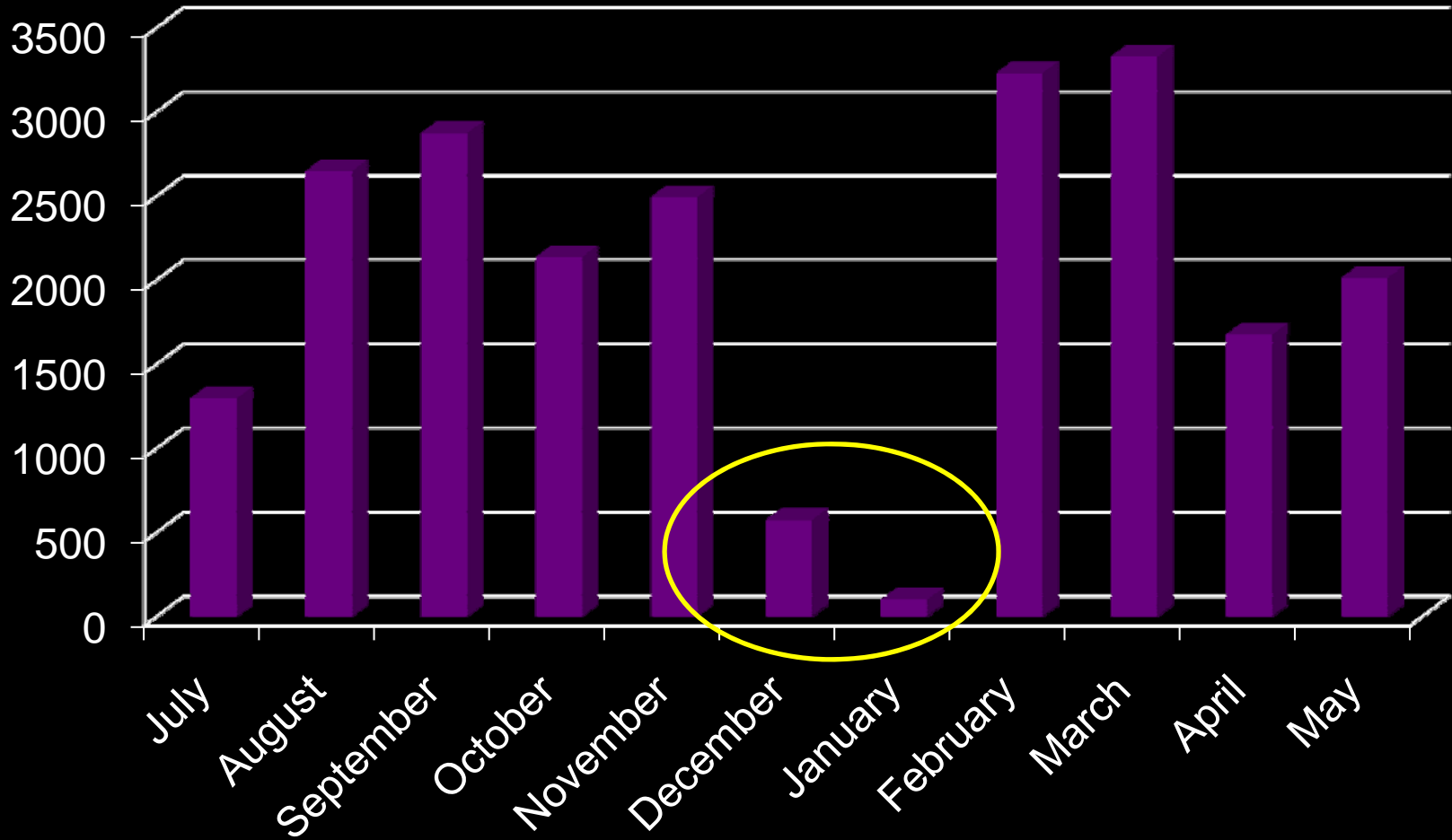
### Reports

**Available Types**

- Student/Cohort Averages
- Student Summary

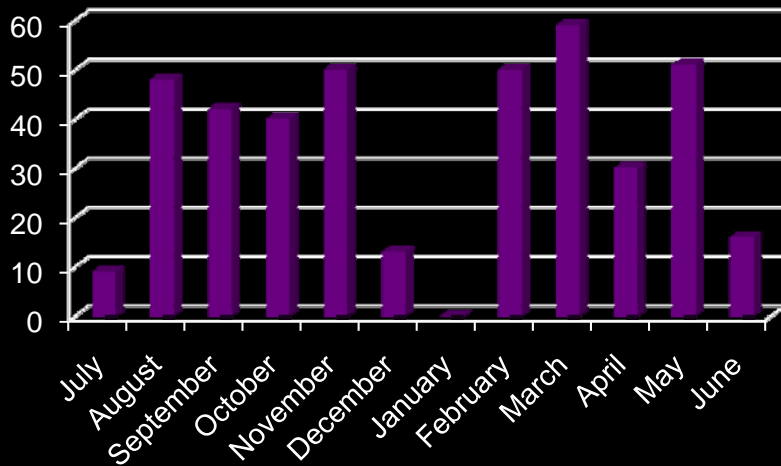
# Clinical Log – Usage by 68 students

Number of Entries in Phase 3 (2009 – 2010)

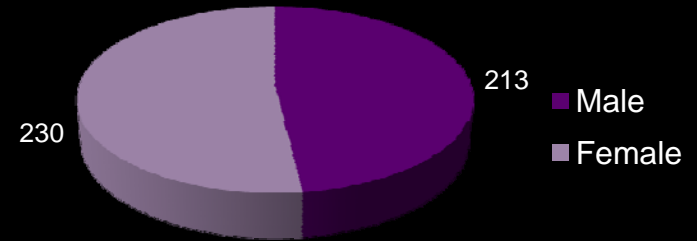


# Clinical Log – Individual Student

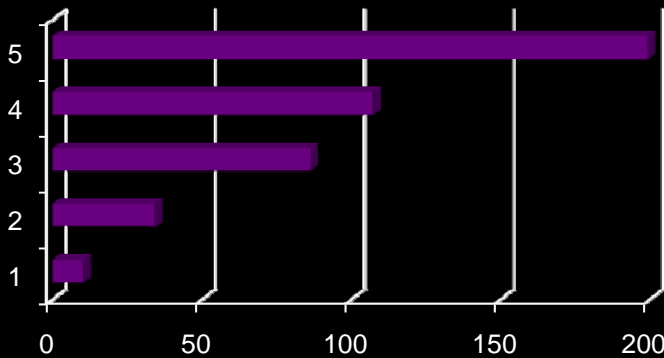
## Clinical Log Entries



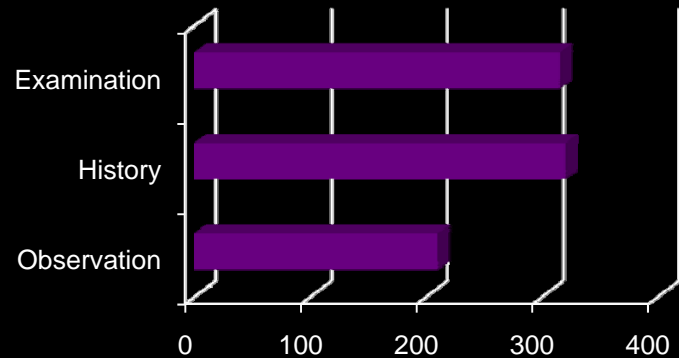
## Gender



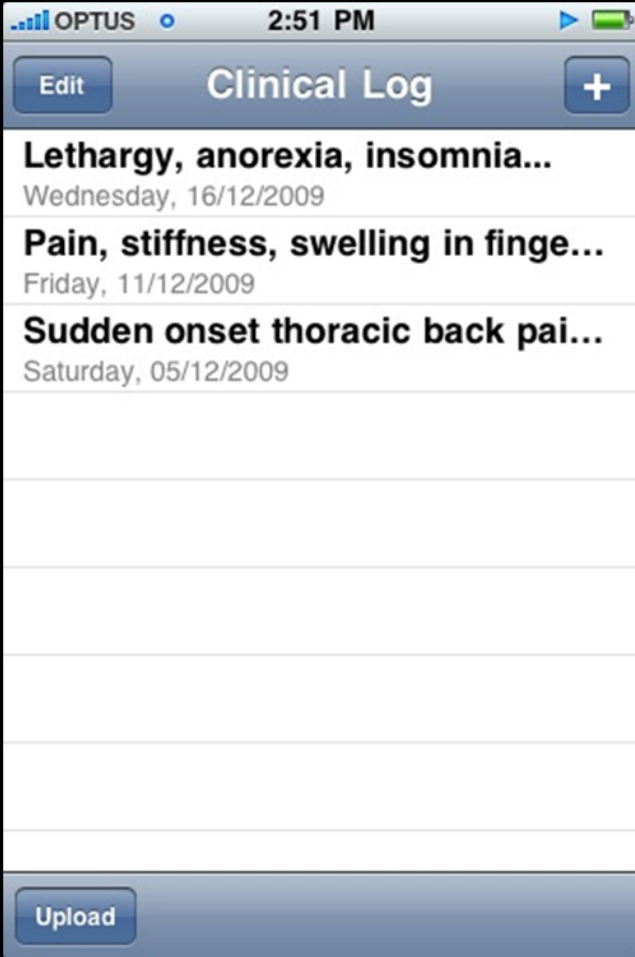
## Confidence Level



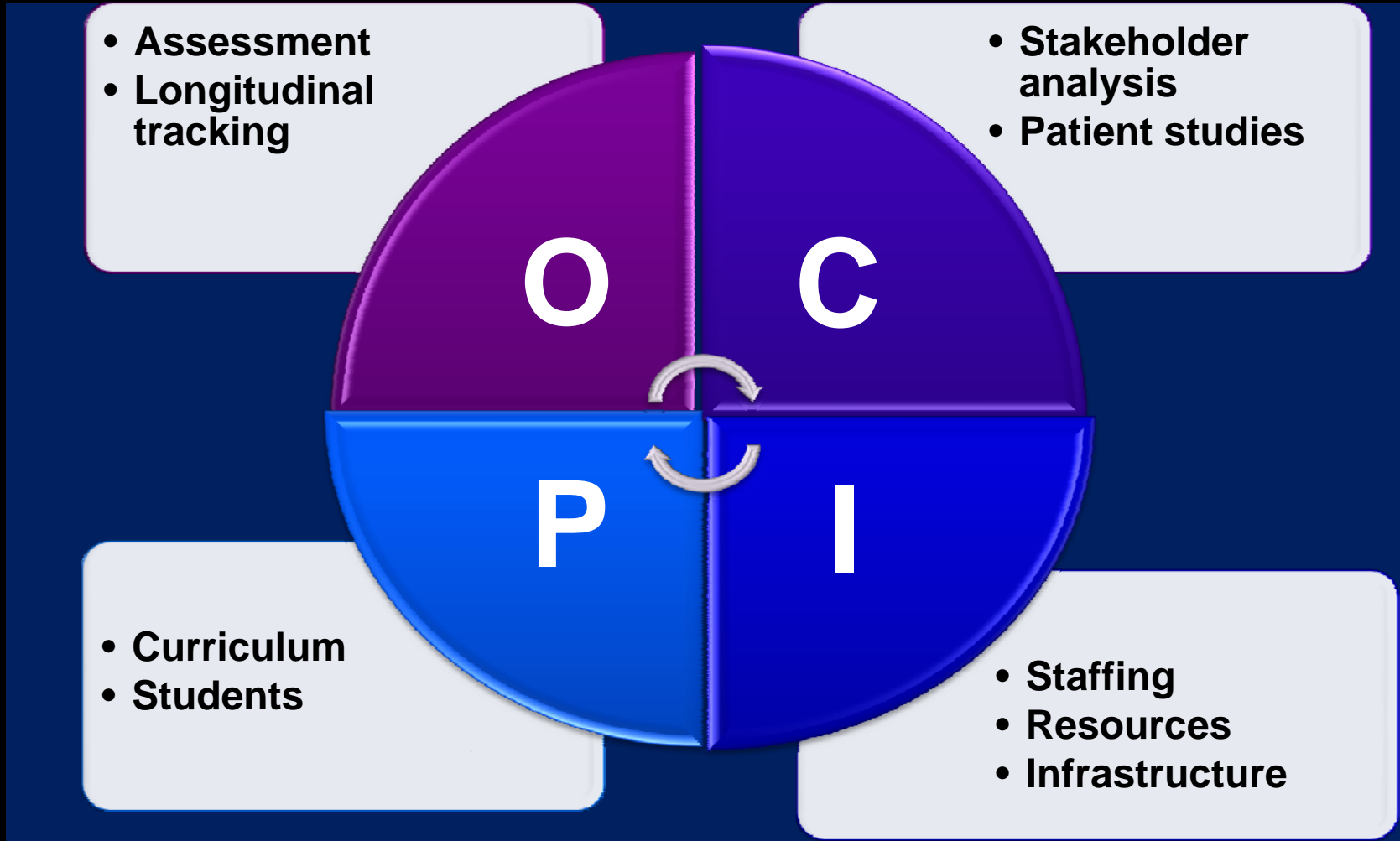
## Involvement Level







# Program logic



# Longitudinal tracking

- Medical students outcomes database
- MSOD
- *National* database at entry and exit
- Questionnaire for all students
- Allows intra- and inter- comparisons
- At UOW -Linked to student number
- Linked to additional data collection

# Value add of linkages

MSOD data

Assessment outcome  
data

Learning  
styles

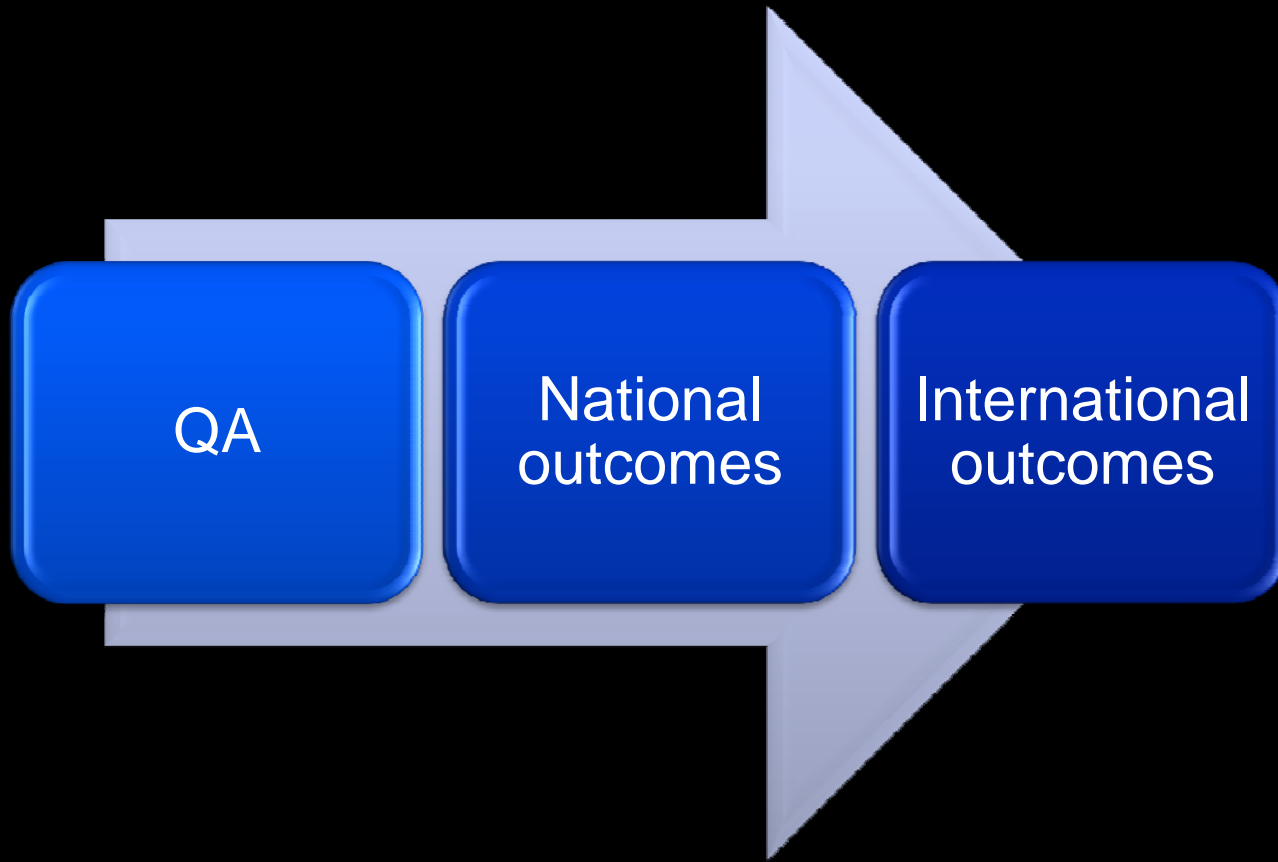
Admissions

RIPL

?

# Towards national and international collaboration?

- Three relationships



# Strategic QA

- How do we do less and get more?
  - Systematic planning
  - Multipliers from technology and collaboration
  - Don't evaluate everything all of the time
  - Feed QA into a vibrant QI process / research process/scholarly process to establish meaning

A pair of hands is shown holding a glowing lightbulb. The lightbulb is illuminated, casting a warm, yellow glow. The hands are positioned around the bulb, with fingers gently gripping it. The background is dark, making the lightbulb and the hands stand out. The overall image conveys a sense of hope, innovation, and the nurturing of ideas.

**Institutional renewal**

**System change**

**Global health care outcomes**

# Thanks

- University of Wollongong
- Graduate School of Medicine
- Staff and students

