

# INTRODUCING INTER- PROFESSIONAL EDUCATION INTO THE UNDERGRADUATE PHARMACY SYLLABUS

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# DEFINITIONS

- **Interprofessional education (IPE)** is the **process** by which we train individuals and teams to practice collaboratively.

Faculty of Pharmacy, University of Montreal,  
AIPHE Accreditation of Interprofessional  
Health Education (( Funded by Health  
Canada)

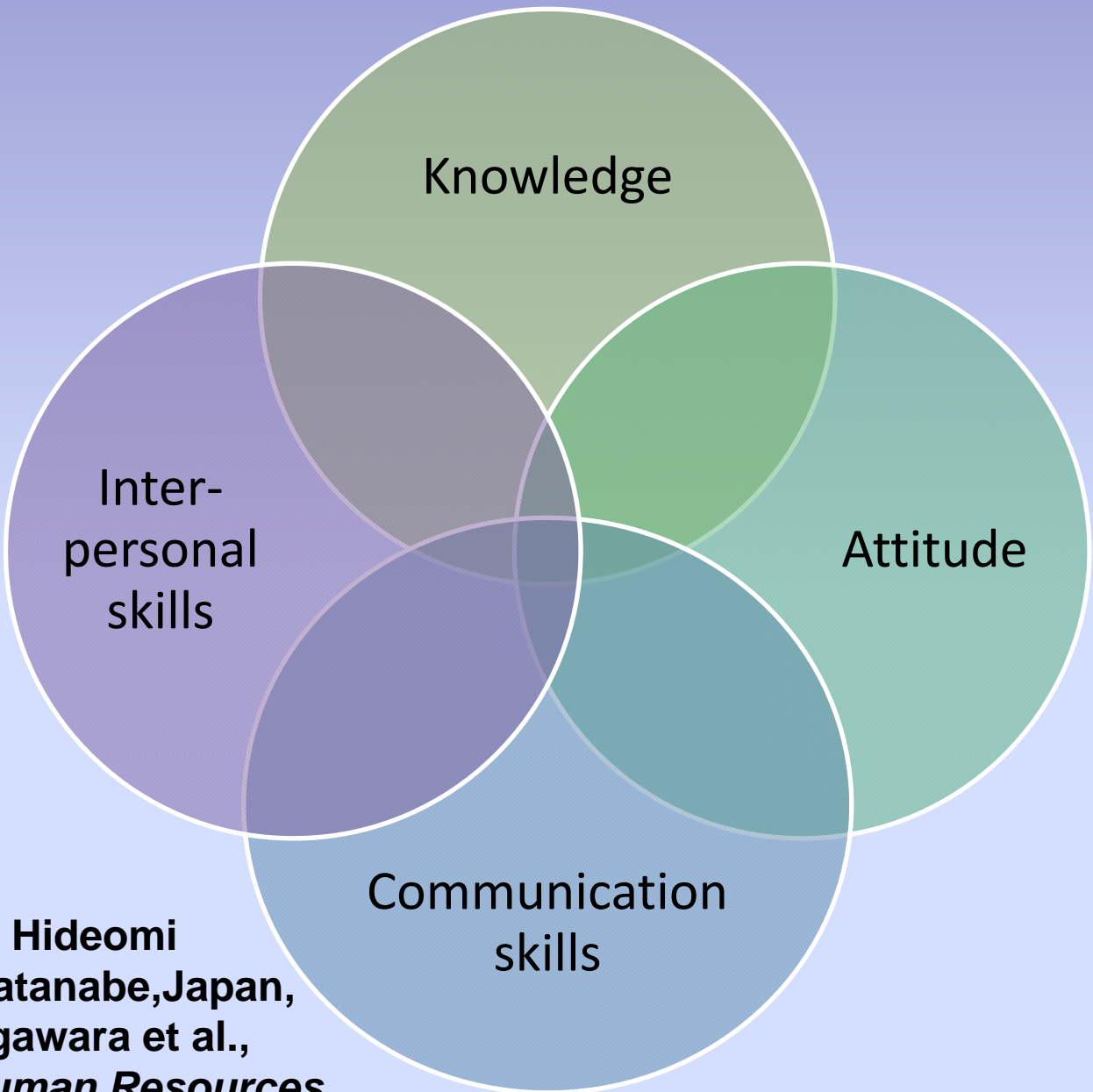


- IPE occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care

CAIPE The UK Centre for the Advancement of  
Interprofessional Education 2002  
([www,caipe.org.uk](http://www,caipe.org.uk))



# IPE Competencies



**Dr Hideomi  
Watanabe, Japan,  
Ogawara et al.,  
*Human Resources  
for Health*, 7:60,  
2009. (Creative  
thinking)**



**University of  
Leicester**

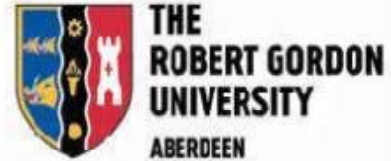


# RPSGB Accreditation Criteria for Undergraduate Courses 1998

“Where appropriate and possible, the student is taught and learns alongside and together with students of other health professions”



# **The Aberdeen Interprofessional Health and Social Care Education initiative**



**Final Report to the Scottish Government  
Shared Learning Steering Group members**

**( Pilot study in 2003/4, 3 year project  
reported 2008)**

**The Robert Gordon University and University of  
Aberdeen Dr Michael Gibson (Interprofessional  
Education Research Fellow)**

**School of Pharmacy&LifeSciences, The Robert  
Gordon University Dr Lesley Diack (Principal  
Investigator), Professor Terry Healey**

**School of Medicine, University of Aberdeen Professor  
Christine Bond , Professor Hamish McKenzie**

**Correspondence to:** Dr Lesley Diack, School of  
Pharmacy and Life Sciences, The Robert Gordon  
University,

**The unique position of IPE in Aberdeen is that it reaches across two Universities and ten professional courses, at 3 locations and involves 1000+ students per year**



- **Dr Lesley Diack at [h.l.diack@rgu.ac.uk](mailto:h.l.diack@rgu.ac.uk)**

**Has published 40 + papers on interprofessional learning.**

**E-learning for IPE presented by Dr Diack at EAFP, Catania**



# The IPE programme

**Neena Lakhani (Leicester School of  
Pharmacy DMU)**

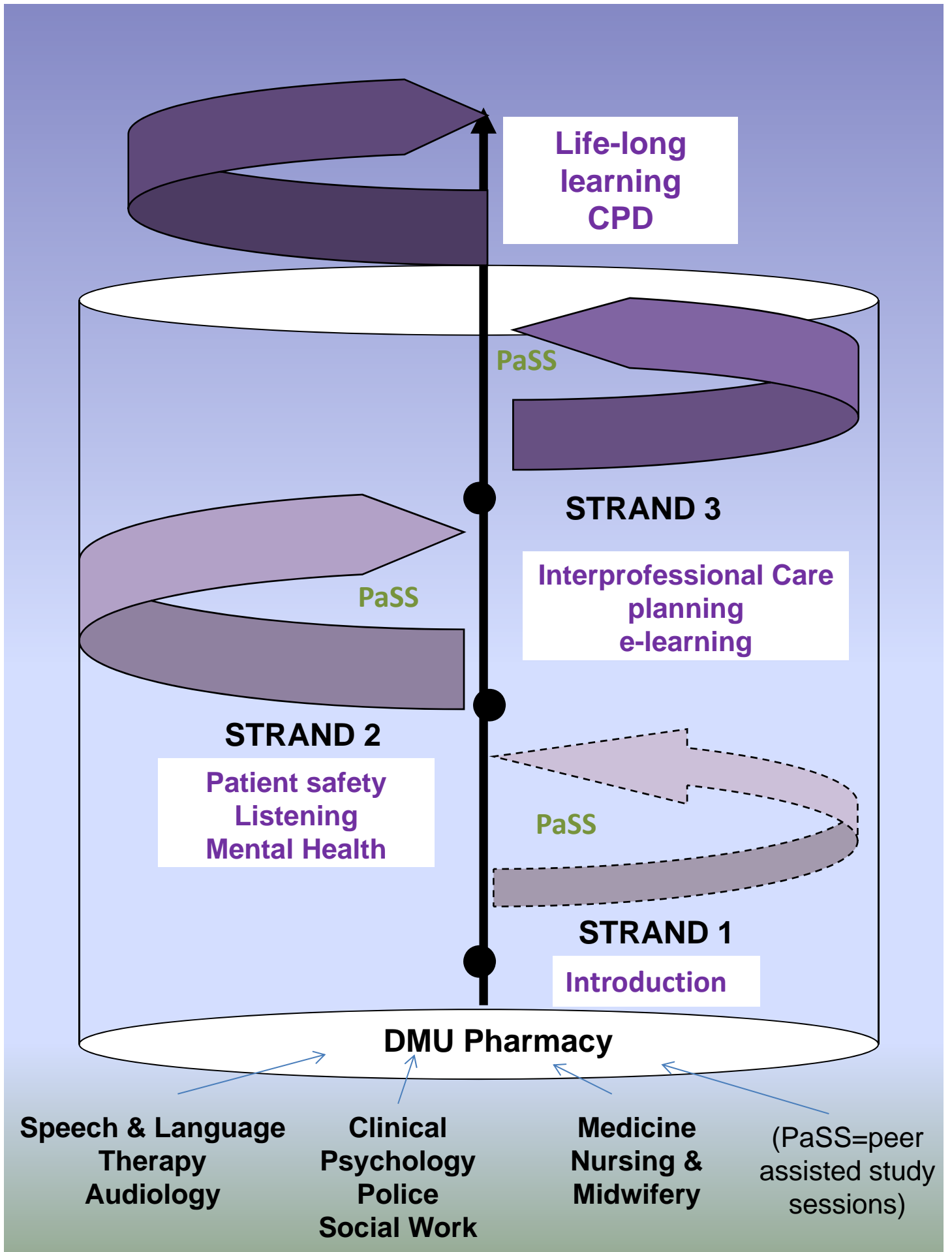
**Elizabeth Anderson and Angela Lennox  
(University of Leicester School of Medicine)**

Numerous publications including:

Pharm.J.(2008),280,571-2

J. of Interprofessional Care (2009) 23:6,557-73







## **Learning in small groups**

**Each group comprises students from at least 3 different professions**

**Student : tutor ratio = 20: 1**

**Tutors are trained IPE facilitators (one experienced and the other can be shadowing)**

**Service users who want to teach on the course are also trained**

**Assessment is through reflective portfolios using specified criteria**

# General Pharmaceutical Council 2010

New Education Standards

One of the Expectations of  
a Pharmacy Professional

“Knows how to engage in  
multidisciplinary team  
work”



# Questionnaire

- **Does your University System provide interprofessional learning?  
Is this provided in Years 1, 2 ,3 ,4, 5 ?**
- **What other students are involved with pharmacy students ?( for example: medical, dental, veterinary, ophthalmic, nursing, engineers, chemists, biologists)**
- **Anything specific for industrial pharmacy?**
- **What type of inter-professional learning is undertaken? ( for example: joint lectures, joint seminars, joint projects, teamwork?)**
- **What does this represent in terms of the overall hours of work in the pharmacy curriculum?**

# DISTRIBUTION of QUESTIONNAIRE

- European Industrial Pharmacists Group (EIPG) members  
Replies **20** European countries
- FIP online Community of Practice (education and training)  
Replies **13** countries

# Results of Questionnaire European Countries

- ***No interprofessional learning at undergraduate level in:***

Bulgaria, Czech Republic, Croatia, Greece, Hungary, Italy, Latvia, Norway, Spain, Switzerland, Ukraine

*Lecturers from other Faculties may teach pharmacy students and some subjects shared with students of biology and chemistry*

- ***Respondents said YES to interprofessional learning in the following countries:***

Belgium, Denmark, Finland, France, Germany, Great Britain, Malta, Netherlands, Sweden

- ***Less than half of European countries provide interprofessional learning to undergraduates***

***No specific IPE for potential industrial pharmacists in the undergraduate course except the optional course on veterinary medicines in Helsinki***

# BELGIUM

## (Ghent)

In 1<sup>st</sup> and 2<sup>nd</sup> years, 25% of total hours is joint learning as there are many “shared” courses in biology, organic & inorganic chemistry, physics, philosophy etc.

This reduces to 5% of total hours in the more specialized 4<sup>th</sup> and 5<sup>th</sup> years.

***Examples of various disciplines working together (IPE) would be in joint specialised courses, such as biotechnology (e.g. PCR).***



# DENMARK

- Copenhagen –No IPE except electives
- Southern University- Yes, IPE in all 5 years. Mandatory natural science courses are followed by pharmacy students as well as chemistry/engineering students.

*Elective courses are hosted by institutions other than pharmacy and pharmacy students will follow these together with e.g. medical students.*

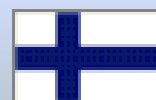


# FINLAND (Helsinki)

Optional courses in later years of study such as :

- Smoking cessation with medical students (20% of pharmacy students participate) represents 3-4 ECTS (of 300 total ECTS in MPharm)
- Veterinary medicines development with veterinary students (30% of pharmacy students participate) represents 4 ECTS.

***Joint lectures, problem-solving and discussion in multiprofessional groups***

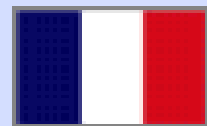




# FRANCE

## (Lille)

- The first year of the course is common to medicine, dentistry and pharmacy.
- Internship in medical biology (common with medicine)



# MALTA

- Computing for students of chemistry and pharmacy is taught in Year 1
- Joint teaching of microbiology is taken by Year 1 pharmacy students with nursing and chemistry students.
- Calculus (Year 1) and Statistics (Year 2) are provided to many Departments
- Separation science is taken by pharmacy and chemistry students in Year 3.



# THE NETHERLANDS

## (Utrecht)

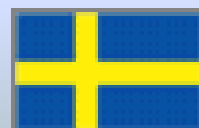
In years 3 and 5, pharmacy students have joint lectures, seminars and projects with students of medicine, chemistry and biology, e.g. on the development of new medicines.

Masters Course has a mandatory inter-professional study of one week between pharmacy and medical students representing less than 1% of the overall course.



# SWEDEN

- A few courses in years 2,3,4,(with joint lectures, seminars and projects) are given with other programmes such as organic chemistry,pharmacoepidemiology and pharmacovigilance. Students from other programs attend pharmacy-courses if they choose but none of the courses are mandatory for chemists and engineers. ***No courses are read together with other health care professionals***



# GERMANY

- In year 3, there are joint lectures and joint seminars for pharmacy students with students from chemistry, medicine and biology. This represents 2-4 hours of work.

***(Rather than IPE, these are study units taught to students from different programmes simultaneously )***



# RESULTS of SURVEY

## Rest of the world

***No interprofessional learning at undergraduate level in 4 countries:***

Malaysia (IIUM, Pahang), Thailand (Srinaharinwirot) India (3 universities) and Bangladesh

***Yes, interprofessional learning in the following:***

Australia, Canada, Indonesia, Japan, Lebanon, Tanzania, Uganda, UAE, USA

# INDONESIA (West Sumatra), TANZANIA (Muhimbili), UGANDA (Makerere)

- Pharmacy students are taught together with medical, dental and nursing students (~20% of total course) and then participate in **“joint outreach programmes”** in rural areas.
- In Indonesia, students of economics, social sciences, law, politics, engineering, nutrition, psychology are included in their **“community empowerment programme”** with healthcare students, including pharmacy



The World Health Organization (2010) summarised the evidence in a Framework for Action on Interprofessional Education & Collaborative Practice. Report emphasises need to make use of limited resources

Health Professions Networks  
Nursing & Midwifery  
Human Resources for Health

Framework for Action on  
Interprofessional Education  
& Collaborative Practice





- **Australia (Monash University)** Year 4 module for pharmacy together with medical students uses virtual elderly patients, collecting histories and preparing care plans (10-20 hours).



- **UAE (Dubai)** All years, pharmacy together with medical emergency (paramedics) students, medical imaging and biomedical engineering undertake **health awareness campaigns**, integrated projects in anatomy, physiology, foundation and behavioural sciences.



## **JAPAN (Gunma)**

**Pharmacy students are part of a team of medical, nursing, lab science, physio- and occupational therapy who undertake group work, presentations and reports.**

**See nine year review of student attitudes: *Ogawara et al., Human Resources for Health, 7:60, 2009 and Hayashi et al., Journal of Interprofessional Care 2012, 26:100-107***



## **LEBANON (American Univ)**

**IPE runs from years 3 to 6 with students of pharmacy, medicine, nursing, nutrition and social work having joint lectures, team work and a collaborative practice model.**

**This represents 4-6 hours per year for 4 years.**



# CANADA (Montreal)

Formal curriculum including 3 x1 credit mandatory courses in years 1-3 shared by 11 programmes:

Audiology, medicine, nutrition, nursing, occupational therapy, pharmacy, physiotherapy, psychology, social work, speech therapy, optometry.

Material developed by academics from all programmes includes on-line modules, intra-(introductory) and interprofessional workshops, IPE activities take place in clinical rotations in 5 different settings.

Aiming for more joint projects as students only meet face to face for 3 hours each course

Represents 3 credits out of 164 total course

**Toronto** Very similar to above but represents 20 hours per year for 4 years.



# CANADA publications

## INTERPROFESSIONAL HEALTH EDUCATION (IPHE) **ACCREDITATION STANDARDS GUIDE**

*Phase 2 – Funded by Health Canada*

To contact the AIPHE Initiative, visit:

[www.aiphe.ca](http://www.aiphe.ca)

## CANADIAN INTERPROFESSIONAL HEALTH COLLABORATIVE **A NATIONAL INTERPROFESSIONAL COMPETENCY FRAMEWORK 2/2010**

College of Health Disciplines [www.cihc.ca](http://www.cihc.ca)



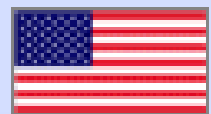
# USA (AACCP)

- IPE is included in American Association of Colleges of Pharmacy (**AACP**) **accreditation guidelines**
- May occur in **all 4 years of PharmD** programme, particularly clinical rotations in final year
- Pharmacy students work with students of medicine, nursing, dentistry and allied health
- Class room, experiential and simulated learning, case studies and clinical skills competitions are employed
- The amount of IPE varies across 127 pharmacy schools in the US from **a few hours of introductory learning to an entire year of didactic and clinical course work**



# USA (Kentucky)

- In all 4 years of pharmacy, joint lectures and seminars, interactive case studies, interprofessional clinical rotations with medicine, dentistry, nursing, public health, health sciences (physical therapy, speech therapy, occupational therapy, physician assistants)
- In years 1-3 this represents less than 5% of the curriculum. **Year 4 is almost completely interprofessional.**



# Pros/Cons of IPE

## ***PROS***

- Encourages real life multi-disciplinary teamwork
- Improves student motivation
- Changes student attitudes and perceptions
- Establishes common values and knowledge base

## ***CONS***

- Logistics
- Management
- Training of IPE facilitators
- Course ownership – need enthusiastic leads for IPE to work

# QUESTIONS?

