



Interprofessional and Multidisciplinary Learning in Rural Health

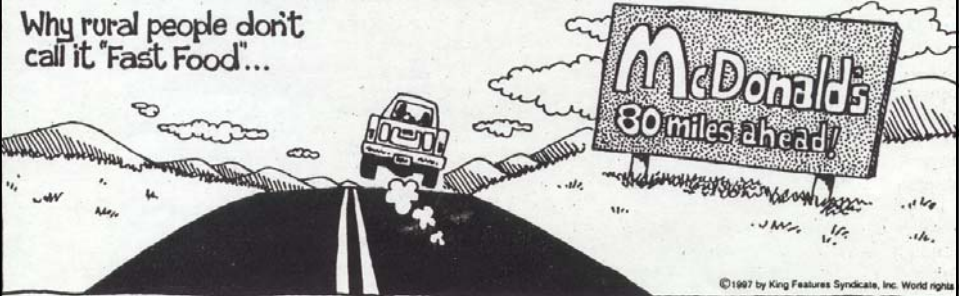
Professor Dawn DeWitt
School of Rural Health
University of Melbourne
U21 Health Sciences 2004



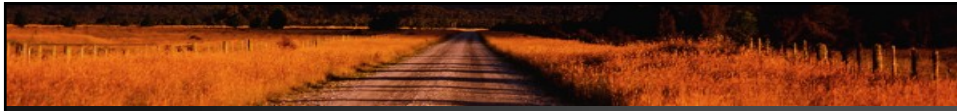
Rural Health Professions Education and The Challenge of Distance...

R.F.D. by MIKE MARLAND

Why rural people don't
call it "Fast Food"...



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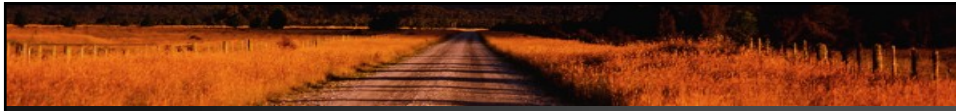
Overview: The State of the Art

- Models of Interprofessional learning
- Curriculum development
- Experience from
 - University of Washington WWAMI Program
 - University of Melbourne School of Rural Health
- Clinical models



Models of IPL

- Expose students to a range of profs
- Place students from different profs together in
 - PBLs
 - Lectures/tutorials
 - Clinical placements
- Task or project learning



The Challenge: Implement and Evaluate

- Cochrane Review from 2001 found 89 studies on interprofessional education
- Conclusion: The studies lacked methodological rigour to demonstrate improved professional practice and health outcomes

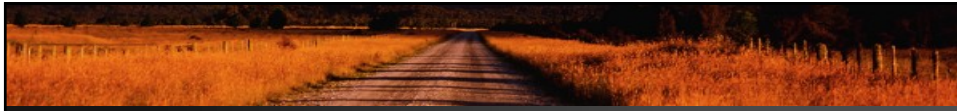
Zwarenstein, CDSR, 2001.



Interprofessional work

- IP working is on a spectrum
 - Loosely coordinated efforts → tightly organised work teams
 - “Health professionals tend to work autonomously even though they may speak of being on a team...health professionals caring for the same group of patients often are employed by different organisations and may be held to different standards.”

Headrick et al. BMJ, 1998.



Team Practice Improves Outcomes

- Growing evidence in stroke care, rehabilitation, diabetes care
- Physician /Nurse-practitioner teams can significantly improve patient satisfaction, A1C and HDL cholesterol at “modest” incremental cost

Litaker, J Interprof Care, 2003.



IPL: What are the Advantages?

- General practice study of multiprofessional learning
 - Increased collaboration and focus on planning and strategy in the practices
 - Shared goals of patient need drives team discovery of how to improve results

Lawrence, Qual Health Care, 1996. Headrick, BMJ, 1998.

Characteristics of high quality interprofessional

Collaboration

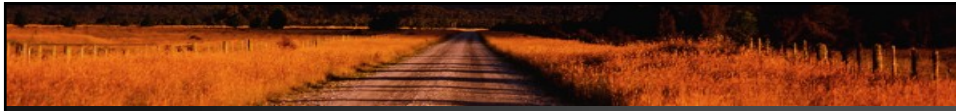
- Attainable, evolving shared vision
- Clear, shared objectives
- Mutual support
- Effective participation
- Task orientation
- Information and appropriate management structures
- Support for innovation

Teamwork

- Direction is clear
- Mission is engaging and motivating
- Goals and objectives are stated, restated, and reinforced
- Member roles and tasks are clear and known
- Atmosphere is respectful
- Responsibility for team success is shared among members
- Member participation is balanced appropriately to task at hand
- Conflict is acknowledged and processed
- Goals fit organisational goals
- Task is achievable
- Clear specifications regarding authority and accountability
- Decision making procedures are clear and known
- Communication and information sharing is regular and routine
- Enabling environment, including access to needed resources
- Ongoing testing of assumptions
- Mechanism to evaluate outcomes and adjust accordingly



Curriculum Development



IPE: Palliative Care

- UCLA study
- 33 medical students and 38 SW students
- Randomized to training sessions or written materials
- Methods included promotion of communication, perspective exchange, building of trust and respect
- Assessments of perceived role understanding
- Role understanding improved significantly more in the intervention group

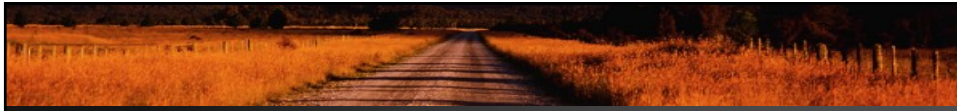
Fineberg, Acad Med, 2004.



IPE: Swedish Clinical Education

- 2 week interprofessional course
 - Medical students, Nursing, Occupational Therapy, Physiotherapy
- Develop their roles, understand others' roles, stress good communication, be more aware of ethical issues
- Questionnaire showed understanding and improvement in awareness

Ponzer, Med Educ, 2004



IPL Education- Barr Review 2000

- “A balance needs to be struck between instilling common curricula and developing interactive learning, so that the professions not only secure a common foundation for practice, but also appreciate the distinctive contribution that each brings to collaborative practice.”
- Work-based IPE more likely to be successful than University based IPE

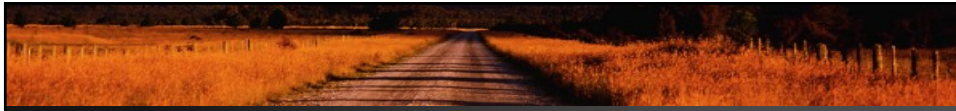
Hugh Barr, Interprofessional Education 1997-2000.



NHS Goals for IPL

- To “know about” other professionals’ roles
- To be able to “work with” other professionals where team members have well-defined roles
- To be able to “substitute for” other professionals (traditional roles) in appropriate circumstances
- To provide flexibility in career routes—moving across

Finch, BMJ, 2000. DOH, London, 2000.



Efforts in Australia

- Rural InterProfessional Education National Curriculum Project (RIPENC)
 - Builds on the RIPE Placement Program: The University of Melbourne places about 30 interprofessional undergraduate students per year in clinical settings
- Project to identify and collate curricula on interprofessional learning
- Development of new resources

Stone, McGrath, Liaw; 2004




IPL: Resources

- Coaching for student teams
- Carefully planned, regular meetings
- Rapid process improvement
 - Evaluate/analyse current processes →
Redesign and test changes
- Support from senior leadership
- Consider exchange for time in courses



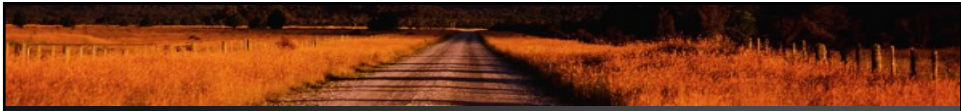
Core Skills for IPL

- Clinical skills
- Communication skills
- Evidence-based practice
- Population and preventive health
- Ethics
- Health systems
- Health Economics
- Roles of Health Professionals
- Patient-centered practice
- Quality and Safety
- Cultural Diversity
- Equity and access
- Medicolegal issues



Barriers to IPL

- Most courses have traditionally been separate
 - Learning objectives
 - Depth of topic
 - Preparedness (level of learners)
 - Logistics
 - Traditional funding mechanisms are separate
 - Accreditation bodies sometimes necessitate training in a certain discipline/specialty/profession



The University of Washington WWAMI Program



Rural U.S. and Australia



Washington

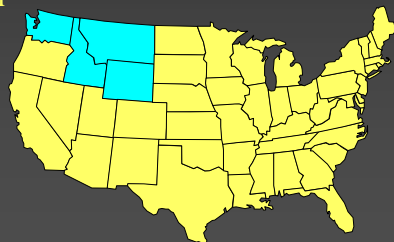
Wyoming

Alaska

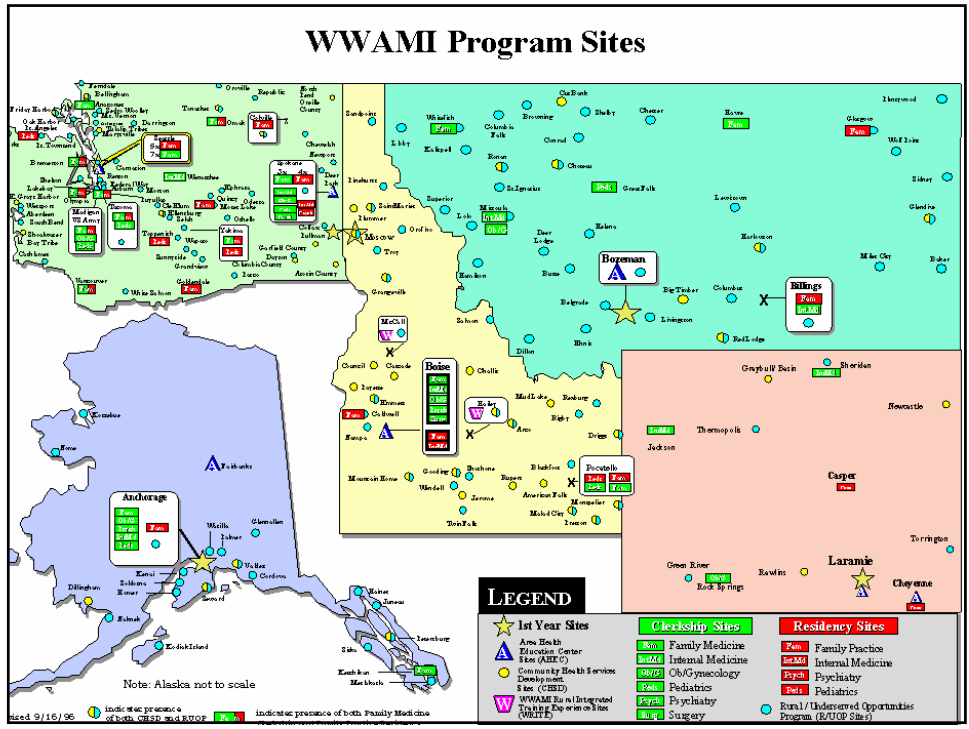
Montana

Idaho

U.S. 23% rural
WWAMI 55% (5 million) rural
Much Frontier < 6 persons/mi²



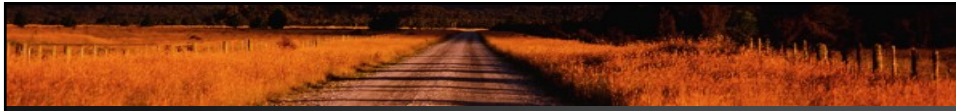
Australia
15% (2.8 million) rural



SPARX

- Students
- Providers
- Aspiring to
- Rural and underserved
- eXperiences

Norris et al.



SPARX

- University of Washington students from all health professions, who run the program with a Faculty advisory board
- Program to address rural health professions shortages and reinforce career interests
 - Post-graduate training choices indicate higher percentage of students choosing rural/primary care
- Students
 - Attend field days
 - Arrange speakers/meetings
 - Earn certificates for rural experience



WRITE program

- WWAMI Rural Integrated Training Experience
- Students spend 5 months rurally doing
 - Medicine
 - Paediatrics
 - General Practice
 - Surgery
 - O&G
 - Psychiatry
- Experience and education is highly inter-professional



WRITE Interprofessional Student projects

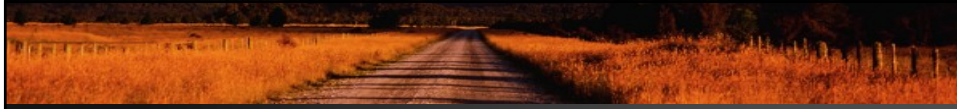
- Medical student identified issue of inadequate dental services in remote Alaska
- She worked with dentists, general practitioners, and nurses to develop a training module and screening program that could be implemented by nurses and GPs in remote offices



Allied Health Professionals

- Nurse practitioner and physician assistant graduates are increasing
 - 2,860 in 1992 → 10,650 in 2001
- Cost
 - PA/ARNP \$60,000+
 - General Internist \$100,000
 - Subspecialty Internist \$200,000-300,000
- Some controversial U.S. studies show subspecialists do a better job of care (e.g. cardiac, HIV) but no studies have examined complex IM patient care!

■ Paauw, JAMA.



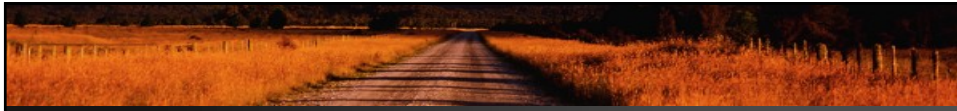
University of Melbourne

Graduates should understand interprofessional practice and have gained flexibility that will enable them to: think laterally, be better aligned with future health care settings, promote teamwork, and become leaders in health care innovation, practice and research.



Rural Health Module

University of Melbourne School
of Rural Health



Rural Health Module-Structure

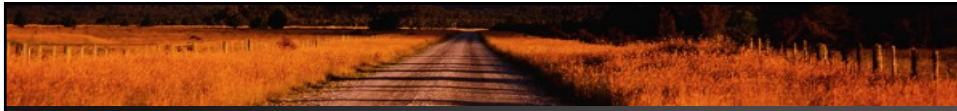
- 4 week program of experiential learning and rural health issues analysis
- UoM Medical students (required course) → physiotherapy, dental students...others
- Students work in pairs
- Interprofessional Learning
- Community agencies, rural placement, Koori placement
- Presentation of health issue analysis by pairs of students



Rural Health Module-Key Concepts

- Health differentials
- Access
- Confidentiality
- Cultural safety
- Team practice

Bourke et al, AJRH, in press.



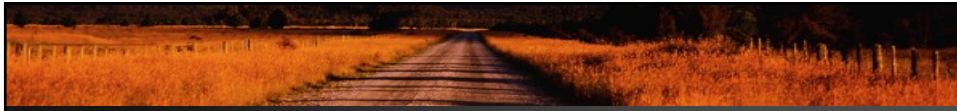
Rural Health Module-key outcomes

- Evaluation * $p < 0.0001$ (1 = “not at all” to 5 = “very much”)
 - The RHM was worthwhile 4.0*
 - Helped me understand rural health issues 4.1*
 - Increased my interest in rural health issues 3.9*
 - Increased the possibility that I will practice in a rural area 3.4*
- Goal: to extend the program to ~45 Interprofessional students per year

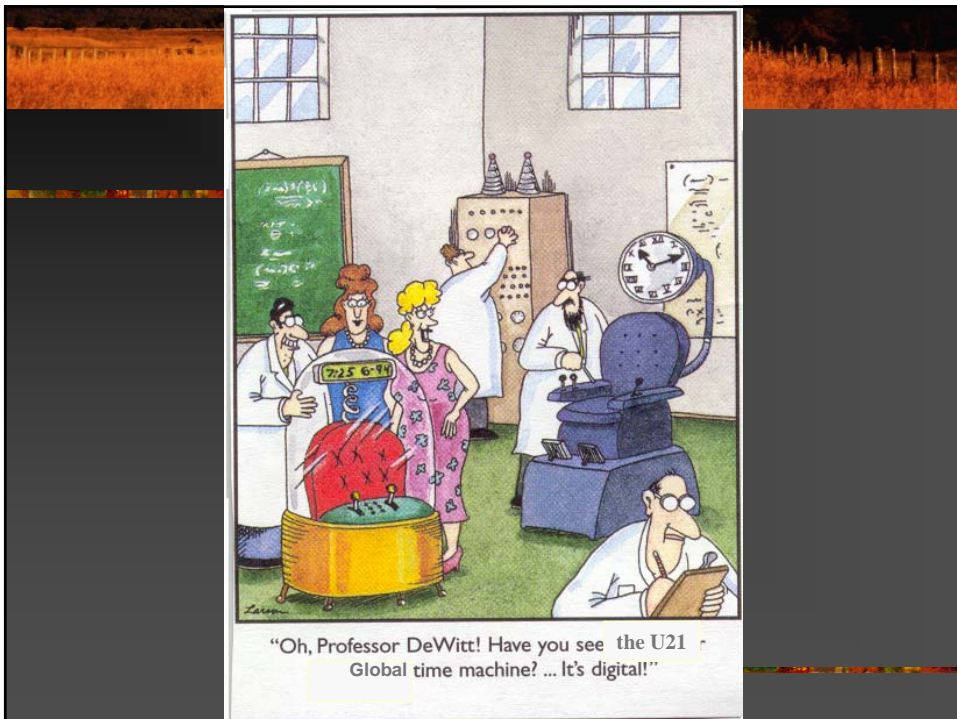


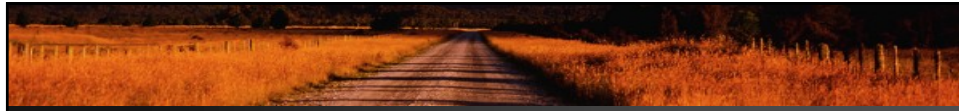
Interprofessional Teaching Practice

- Provide excellent teaching for interprofessional students and care for underserved patients
- Academic clinicians teaching students and postgraduate in an ambulatory setting
- GP, Generalist specialists, Psychiatry, Practice nurse, Nurse practitioner, Pharmacy, Social work
- Electronic records link the hospital and practice to foster continuity of care
- A center for outpatient-inpatient continuity “best practice” research in cost-effectiveness, and interprofessional service-learning



- One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient.
 - Francis Weld Peabody
- It seems that the secret of successful interprofessional learning is to put the patient at the center and encourage students to work *together* to understand how to achieve the best care, and system of care, for the patient.





I Touch the Future...I Teach

Christy McAuliffe, Astronaut



A Week in the Future Monday

- 3 AMS or masters students start work on projects
 - Rural web/telecare in diabetes
 - High school indigenous students' dietary habits
 - Communication with patients when students take the history
 - One student teleconferences on parallel projects with Inuit natives in Alaska
- Rural clinical nursing, physiotherapy, and medical students attend a workshop on diabetes web telecare
- Clinical school teachers and hospital staff meet for a development session to review the teaching



A Week in the Future

Tuesday


- An indigenous forum is held at the SRH to address nursing student recruiting
- At noon staff and students meet with the ethnic council to plan a short course on medical interpretation that will be delivered using tutorials and online sessions
- Students in Echuca access interactive curriculum online
- In the evening, a community forum addresses nutrition and diabetes prevention in rural schools



A Week in the Future


Wednesday

- Students attend a virtual clinic with nurses and pharmacy students for rural patients with diabetes. Patients download their blood sugar data and the team adjusts medications saving patients and doctors hours of travel time
- Physiotherapy and medical students go to a local school and talk to students about nutrition and exercise to prevent diabetes
- Students and hospital medical officers run a community links van in the evening for youth healthcare and provide cigarette cessation counseling



A Week in the Future Thursday

- Students and multidisciplinary staff drive to a town 2 hours away and have a group clinic with patients with diabetes
- Another team has a similar clinic to address mental health issues related to flooding in the area with resulting damage to crops
- Senior administrators meet in the afternoon with students and hospital medical officers to review teaching and recruit needed clinical teachers—their children are cared for onsite



A Week in the Future Friday

- Students and staff evaluate the programs and draft papers regarding the evaluations of telecare
- Videoconferencing allows rural GPs to meet with the teams that held virtual and group clinics to plan interventions and to improve quality and efficient delivery of care
- Our first indigenous nursing and medical graduates do a team presentation on virtual clinics at a national meeting