Rural Opportunities in Medical Education

Rural-based, Longitudinal, Interdisciplinary Curriculum

What have we learned?

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ROME Director
Dept of Family & Community Medicine
ROME Sites

- Williston - 12,512
- Jamestown - 15,527
- Devils Lake - 7,222
- Bismarck
- Grand Forks
- Fargo
- Dickinson - 15,632
- Hettinger - 1,307

Yr 03-04 campuses

Canada

Montana

Minnesota

South Dakota
ROME Outcomes

Exam scores*
  Subject exams
  USMLE Step 2
Clinical encounters
Career choices

Practice locations

Data from “Performance of Medical Students in a Non-Traditional Rural Clinical Program, 1998-99 through 2003-04”
  Academic Medicine, Vol 81, No 7/July 2006
  Roger W. Schauer, MD, and Dean Schieve, PhD
Comparison of Shelf Exam Raw Scores
Based on Available Data from 1998 to 2003

- Internal Medicine
- Pediatrics
- OB/GYN
- Surgery

All Others
ROME
NBME Step 1 and 2 Scores
1998-2003

Step 1

Step 2

Traditional
ROME
ROME vs UND grads vs national residency match

Primary Care vs other specialties

- ROME (N=47)
- Traditional (N=445)
- National

* p<0.05 Fisher's Exact Test between ROME & Traditional curriculum students only.
* National percentages are provided for reference only.
ROME student specialty selection vs traditional UND curriculum vs nationwide data*

* UND Graduates from 2000 through 2008
p<0.05 Fisher's Exact Test between ROME & Traditional curriculum students only
National percentages for reference only.
Observation vs Hands-on learning
2005-2008 - percentiles
ROME Graduates through 2010
N = 65
Traditional (N= 543) vs ROME (N=65) Graduates (percentiles)
Why community-based teaching & learning?

“Real world” medicine
- see more patients
- wider variety of patient problems
- more acute care
- more procedures
- closer supervision
- one-to-one teaching & mentoring
Additional reported benefits

Common office-based problems
Chronic disease management (continuity)
Health maintenance
  Prevention & screening
Doctor-patient relationship
Why Ambulatory Setting?

That is where the most patients are found
Requires unique skills
(teachers possess unique skills/knowledge)
Authentic role models
Influences careers
Why smaller, remote communities?

Practice and population unmodified by tertiary care practice

To increase awareness of needs and opportunities for future practice
*Perceptions & Challenges for Preceptors

Time

(economic concerns of systems)

Teaching expertise/experience

*(their self-assessment)
Student expectations

from clinical faculty:
- Clinical experience
- Direction
- Feedback
- Evaluation - forms at: http://www.med.und.edu/familymedicine/rome/

from the med school:
- Feedback
- Credit for clerkships
- Pass USMLE 2
Addressing Student Isolation

Orientation to clerkship & sites
2 Students per site
Interactive videoconferencing with Polycom ViewStations
Faculty visits (all clerkship directors at least once per year – average once per month, including ROME director)
Comparable experiences

PDA-based clinical encounters database
Evaluate clinical experience in real time

Uniform evaluation tools across clerkships

Visits by clerkship directors

Clinical faculty**
Outcomes

+++ Improved clinical experience
+/- Credit for disciplinary clerkships (Neuroscience)
++ Pass USMLE 2
++ Improved data
++ Improved student evaluation
+ Faculty teaching skills development
+? Improved program evaluation
+ Increased family medicine entrants
+? More graduates selecting rural/smaller communities (too early)