

Rural Opportunities in Medical Education

Rural-based, Longitudinal, Interdisciplinary Curriculum What have we learned?

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ROME Sites



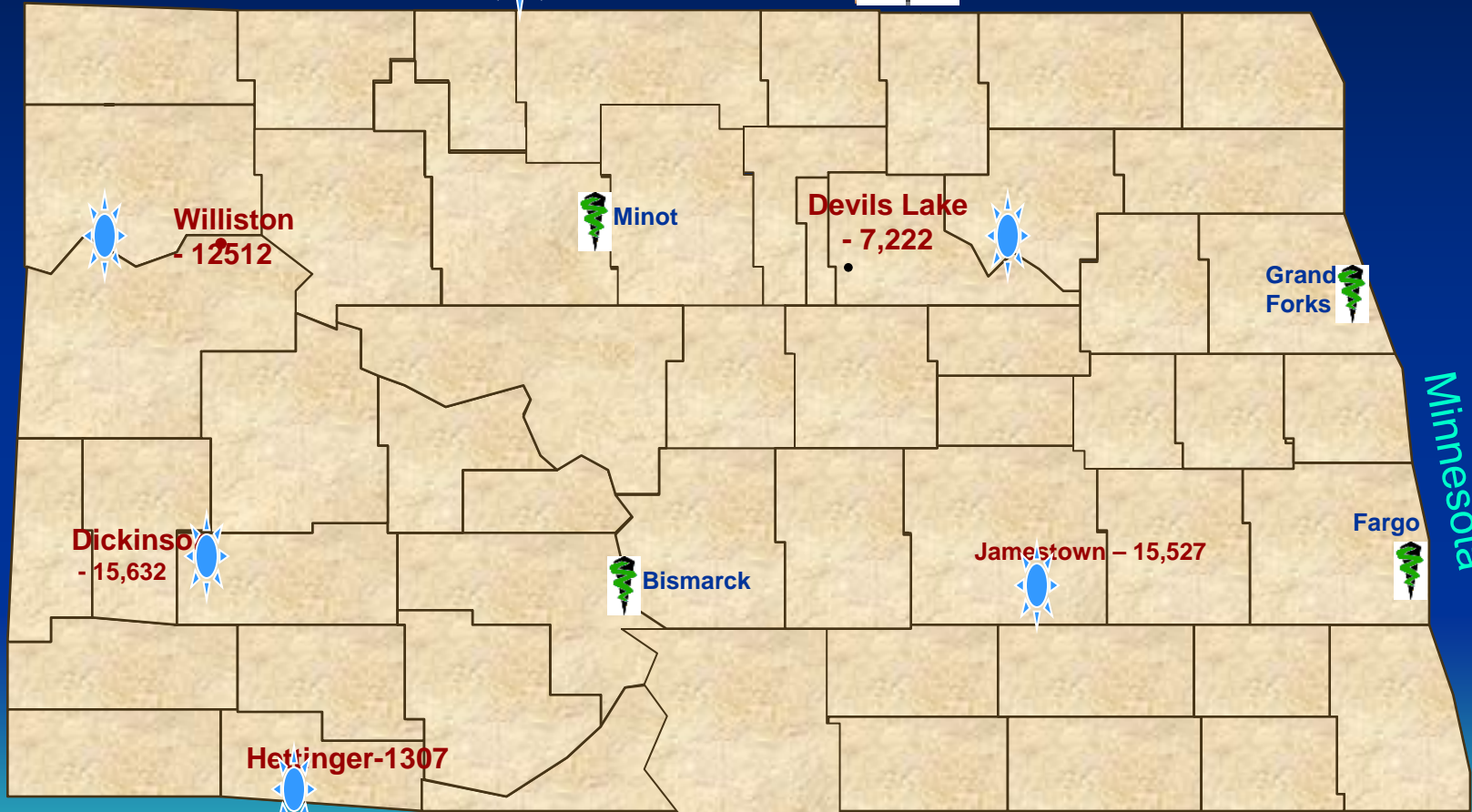
Yr 03-04 campuses



Canada

Montana

Minnesota



Williston
- 12,512

Minot

Devils Lake
- 7,222

Grand Forks

Dickinson
- 15,632

Bismarck

Jamestown - 15,527

Fargo

Hettinger-1307

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"

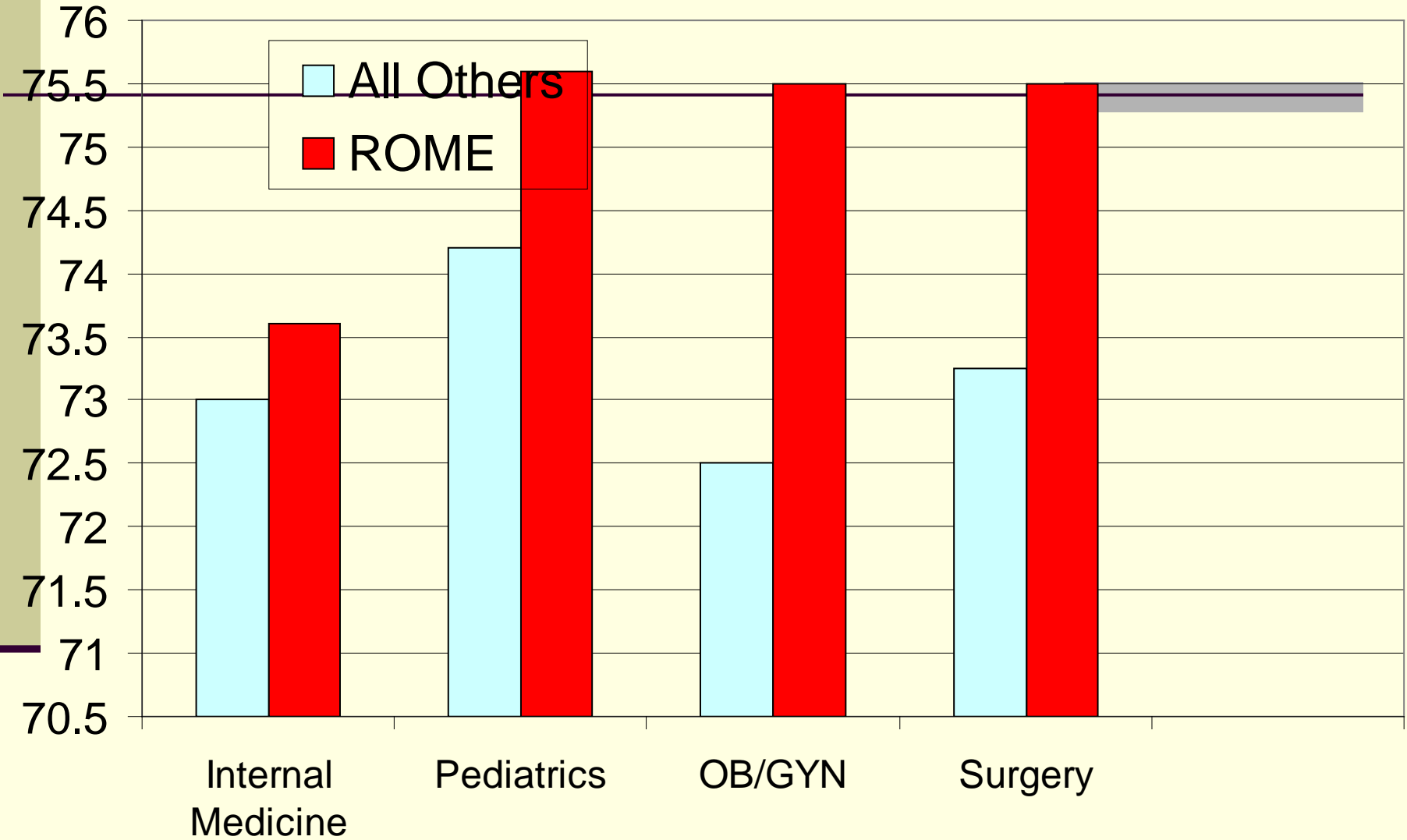
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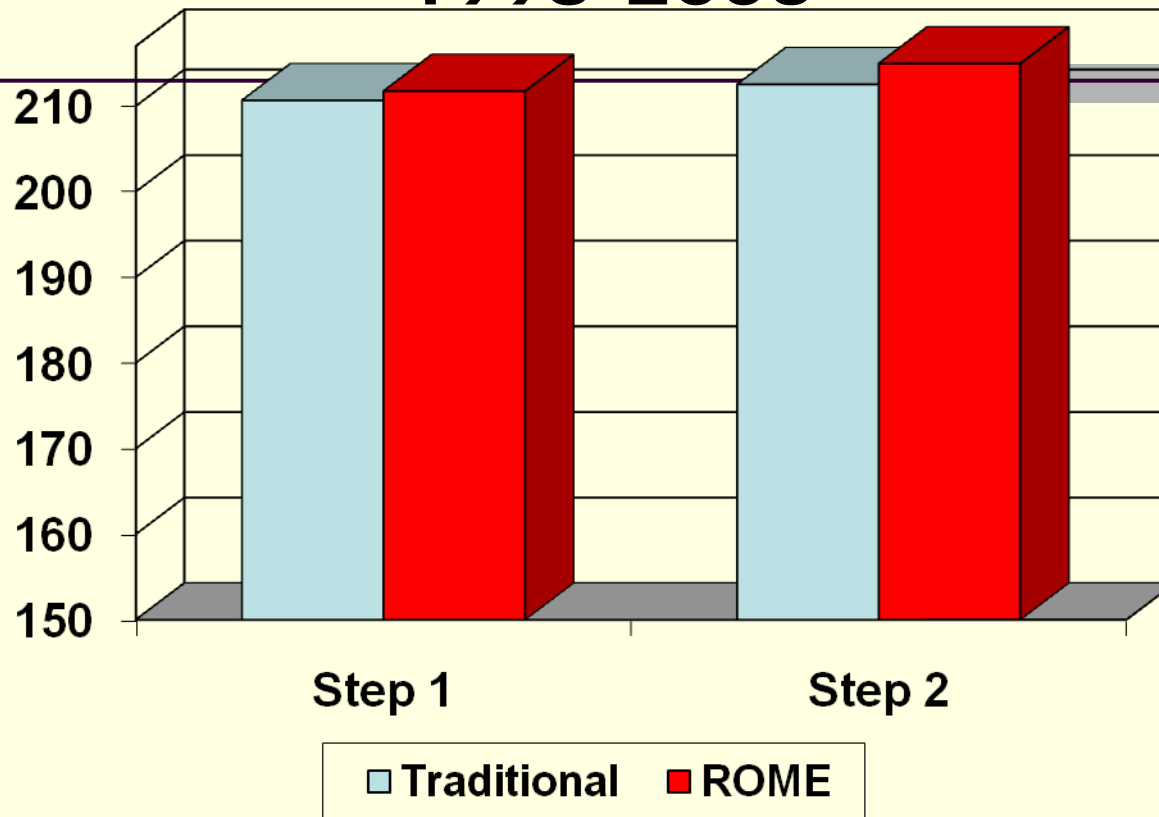


Comparison of Shelf Exam Raw Scores

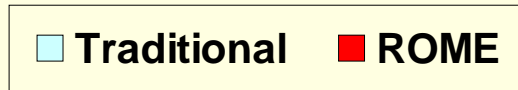
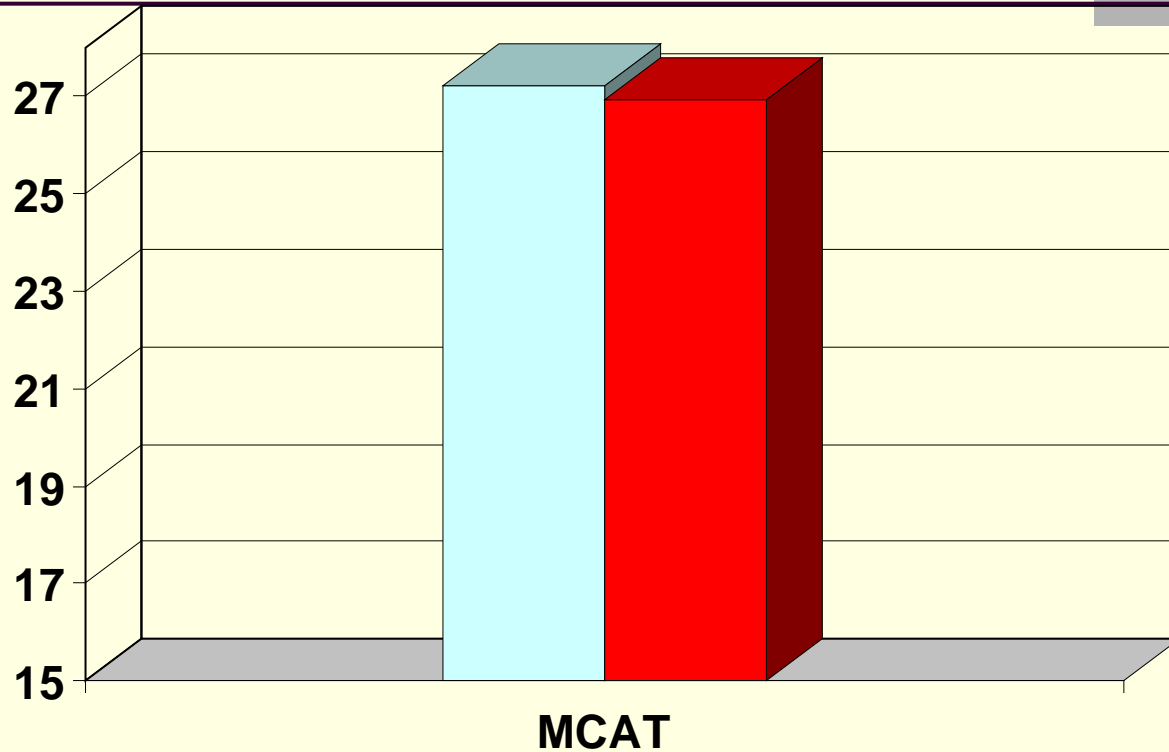
Based on Available Data from 1998 to 2003



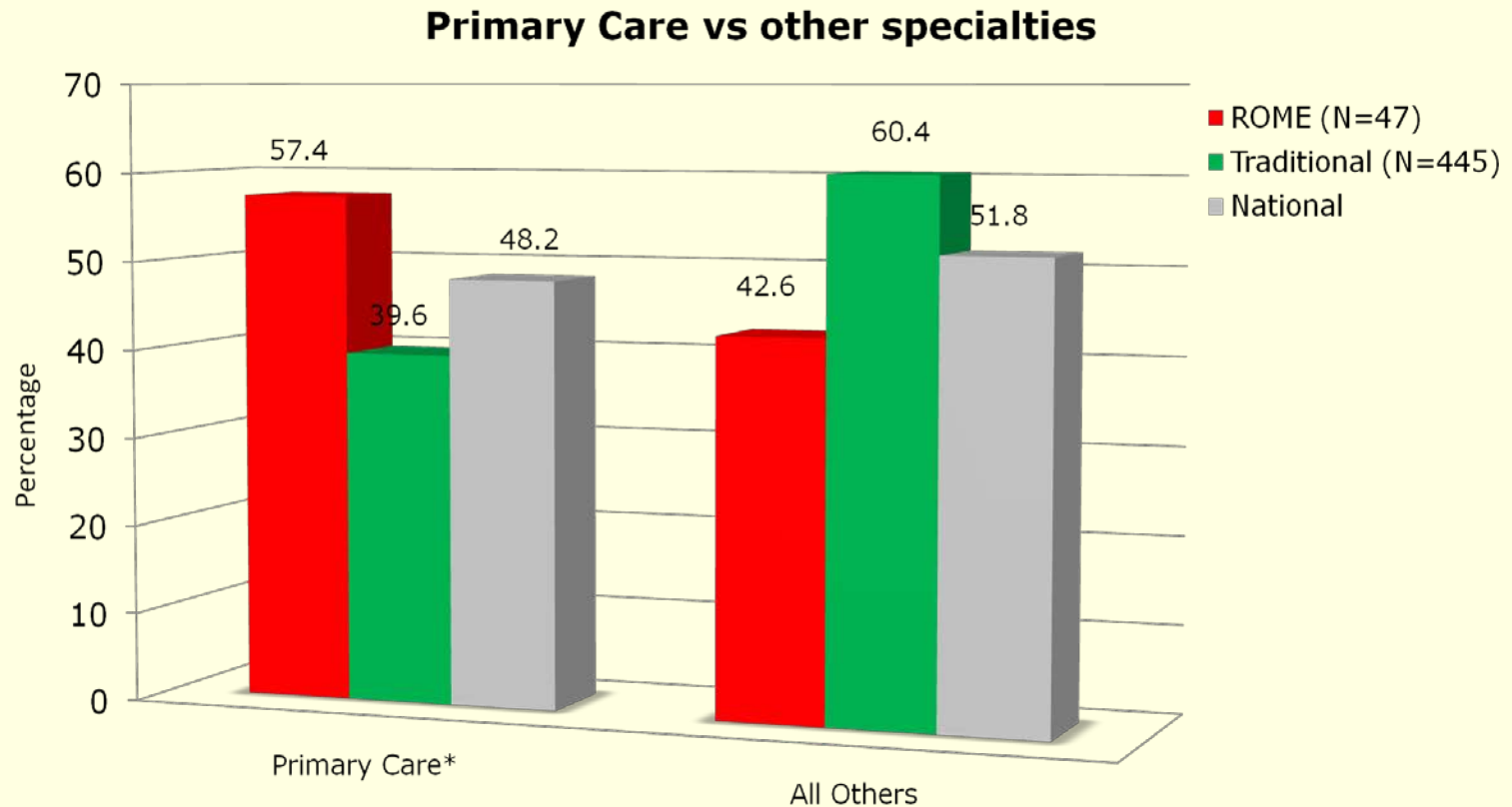
NBME Step 1 and 2 Scores 1998-2003



MCAT Scores for 1998-2003 cohort



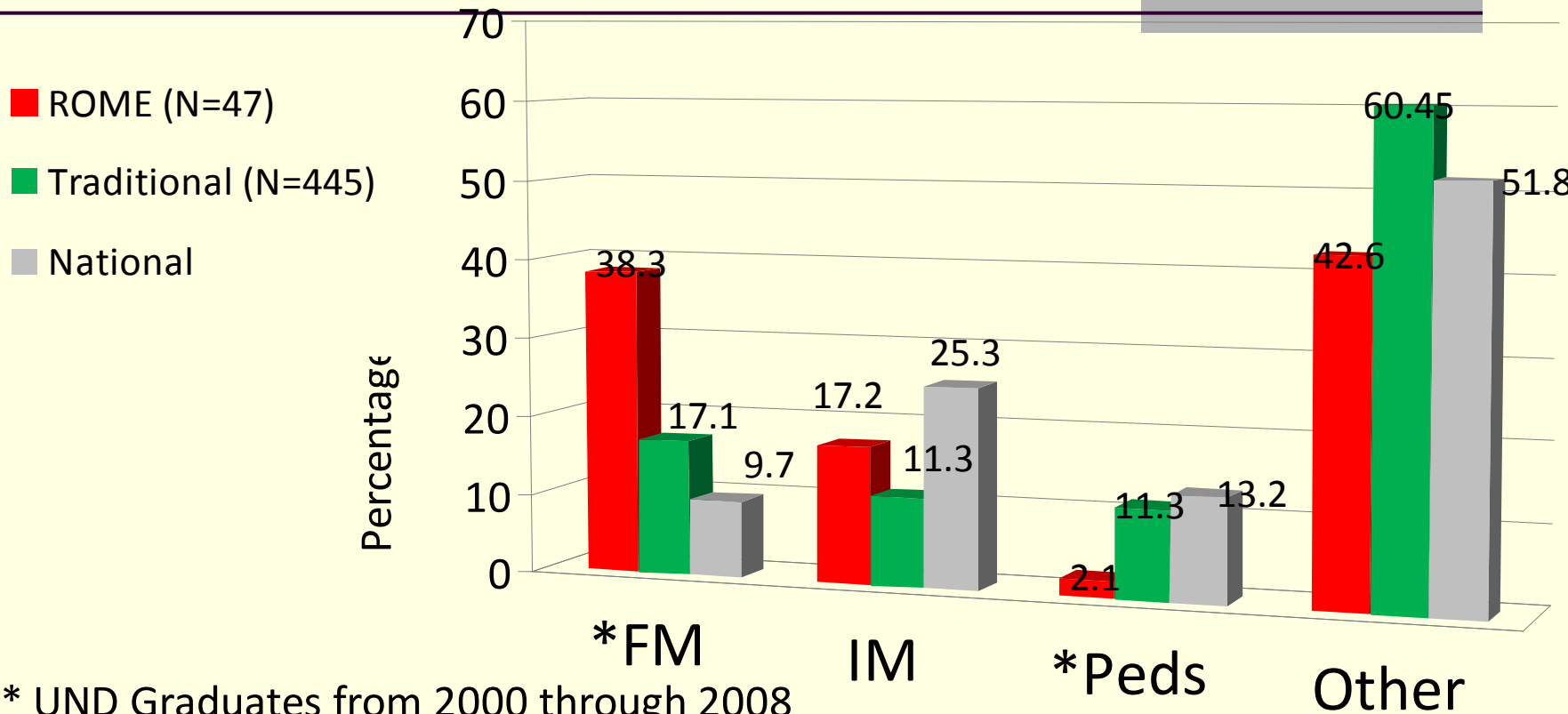
ROME vs UND grads vs national residency match



• $p < 0.05$ Fisher's Exact Test between ROME & Traditional curriculum students only.

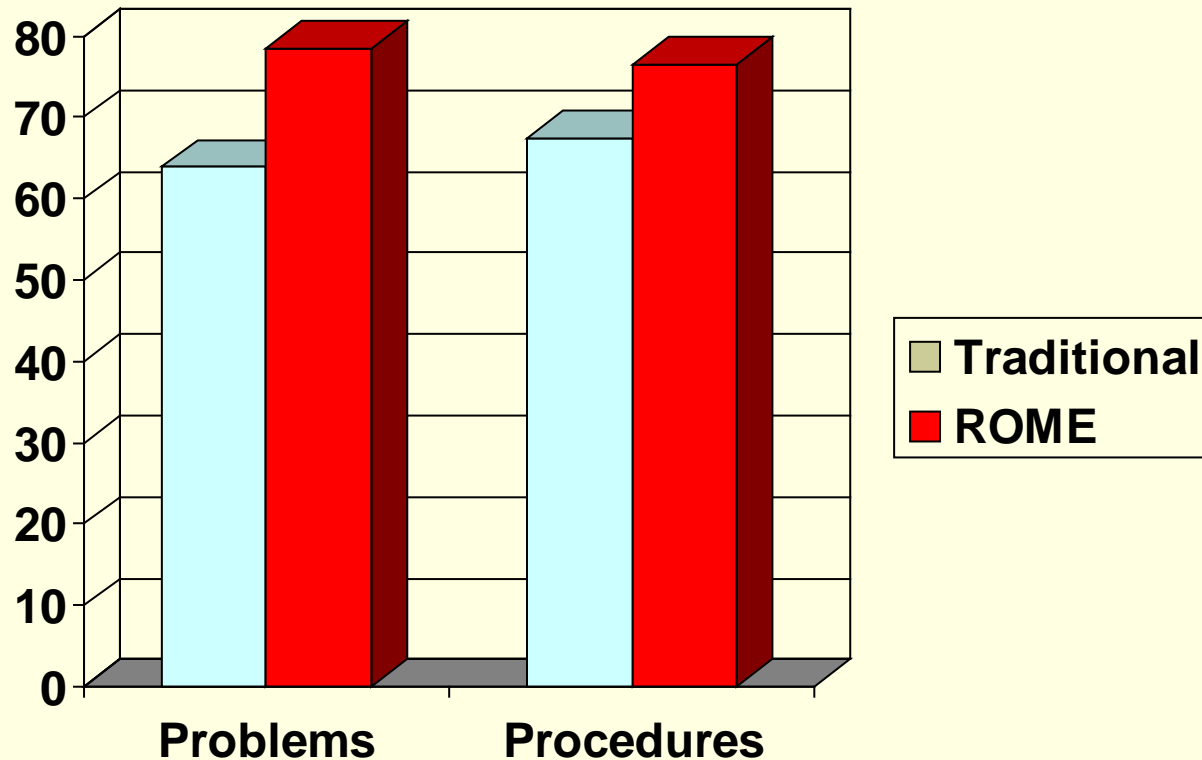
•National percentages are provided for reference only.

ROME student specialty selection vs traditional UND curriculum vs nationwide data*



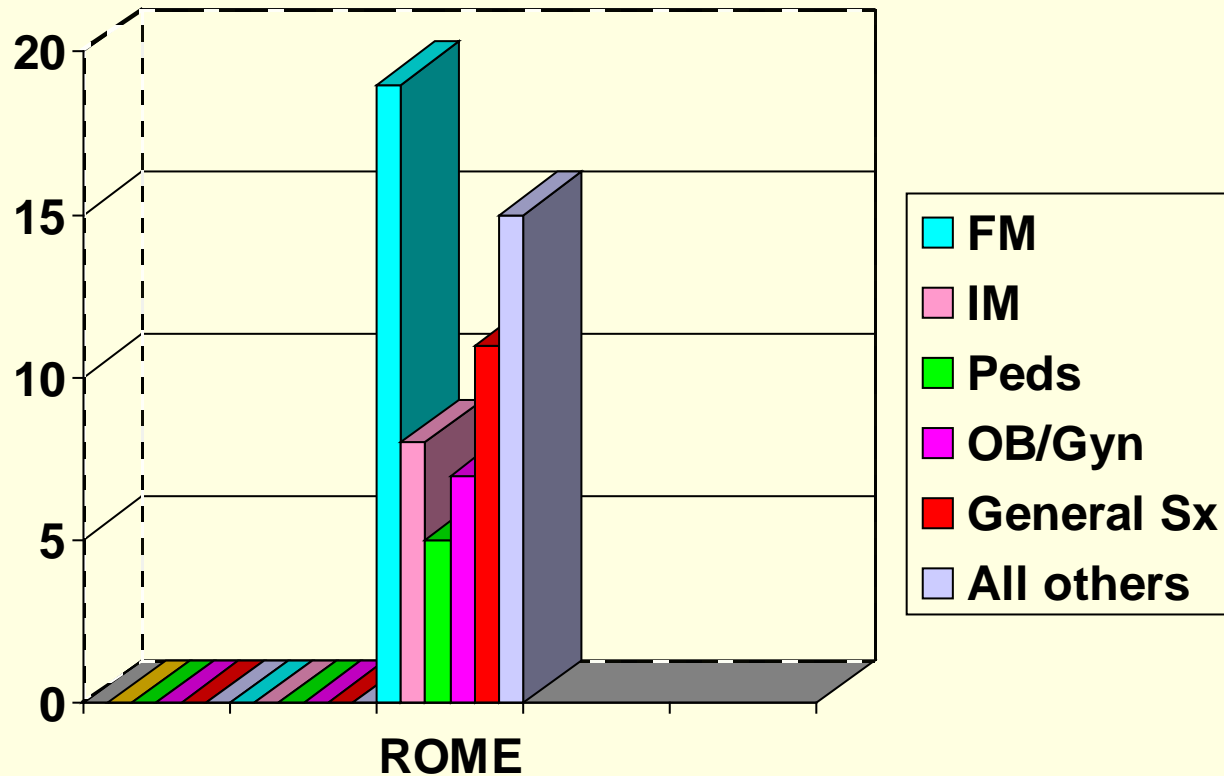
* UND Graduates from 2000 through 2008
 p<0.05 Fisher's Exact Test between ROME &
 Traditional curriculum students only
 National percentages for reference only.

Observation vs Hands-on learning 2005-2008 - percentiles

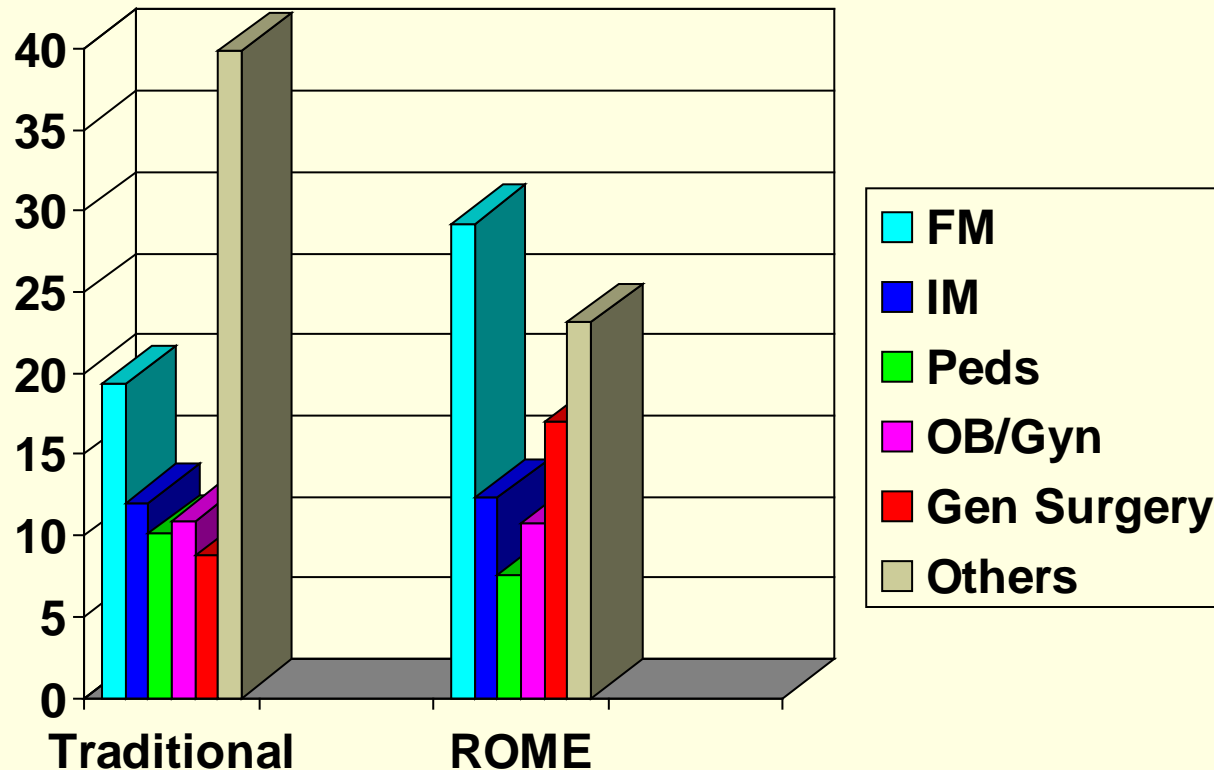


ROME Graduates through 2010

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)
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