National Center for Rural Health Professions

Developing a Primary Health Care Workforce in Rural Illinois
MISSION: To Promote The Health of Rural Communities Through Partnerships In Education, Service, Research And Policy
National Workforce Shortages

• Doescher and colleagues (2009) estimate that a 30% or greater increase in primary care workload by 2020, paired with a 7% increase in supply, at best, translates to a shortfall of 35,000 to 44,000 primary care providers nationally

• In 2005, there were 55 primary care physicians for every 100,000 people in rural areas, compared to the 95 per 100,000 that are needed (Steinwald, 2008; Fordyce, 2007)
Health Professional Shortage Areas (HPSA) - Primary Health
HPSA Designated Type

Geographic Service Area - portions of a county or portions of multiple counties designated as a geographic HPSA.

Population Group - a population within an area that is designated as a HPSA.

Geographic Single County - whole county designated as a HPSA.

Source: Health Resources and Services Administration - HRSA, Bureau of Health Professionals. July 6, 2008

Note: Alaska and Hawaii not shown to scale.
Illinois Workforce Shortage

- 83 Rural Counties in Illinois
  - Nearly 20% of Illinois residents live in rural counties
- 82 of the 83 Rural Counties in Illinois, have some form of Health Professional Shortage Area (HPSA) designation
  - 82 have Primary Care HPSAs
  - 68 have Dental Health HPSAs
  - 77 have Mental Health HPSAs
Illinois Workforce Shortage

• The state of Illinois is short approximately 280 FTE health professionals
  – 132.5 FTE primary care (MDs or DOs with a specialty in Family Medicine, Internal Medicine, Pediatrics, or Ob/GYN professionals.
  – 101.5 FTE dental health professionals (DD or DDS)
  – 46 FTE mental health professionals (Psychiatrists)
• County needs range from .5 FTE to 11 FTE health professionals
NCRHP’s Response to the Challenge

• Develop medical and health education programs that offer special curricula on rural healthcare delivery

• Create programs that focus on the early identification and recruitment of students who will be more likely to pursue medical and health professions careers in rural areas

• Overall, implement an approach that combines strategies through attention to the 4 key components of health professions education programs: recruitment; curriculum; support; and evaluation
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<td>Provide Health Career Talks</td>
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RMED PROGRAM:

Admissions Process

Curriculum

Outcomes
The Rural Medical Education (RMED) Program at the University of Illinois Rockford seeks to admit and prepare medical students from the state of Illinois who will, upon completion of residency training, locate and practice in rural Illinois as primary care physicians.
Admissions Process

• Apply to UIC Medical School (AMCAS) or UIC Pharmacy School (PharmCAS)

• Complete RMED/RPHARM additional ‘rural’ application and send by December 1st (three letters of recommendation)

• Applications screened by committee in December

• Interviews in January for candidates by Recruitment & Retention Committee (focus on primary care and rural intent)

• If selected, name presented to admissions committee in Chicago for admission as RMED or RPHARM student

• Admitted or Denied by the College
Health Professions Students: Learning Components

• Rural Health Professions add-on curriculum

• Southern and Northern Exposure Tours for RMED M1/M2 and RPHARM P1/P2 students

• 16-18 week Preceptorship during 4th year in rural community with PCP or pharmacist for RMED/RPHARM student

• COPC Project for RMED and RPHARM students

• Rural Interdisciplinary Health Professions Preceptorship – 6 weeks
Piggy Back Education

• The Rural Health Professions curriculum is a supplemental curriculum. Training for RMED & RPHARM is in addition to the regular curriculum at the University of Illinois – Rockford
  – Specialized experience
  – Unique training
  – Better preparation for rural primary care practice
  – More competitive residency profile
# RHP Curriculum

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<th>Curriculum Focus</th>
<th>Methods</th>
<th>Contact Hours</th>
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<td>RHP Year One</td>
<td>Rural health issues, community resources, intro to COPC, rural leadership and negotiation skills</td>
<td>RMED/RPHARM new student orientation, seminars, case-based small group discussions, field trips, optional rural health conferences, shadowing rural family physician for a day, selected readings and assignments</td>
<td>~2 day orientation 7-9 monthly evening dinner seminars (3 hrs/month) 1-2 day field trips 1-3 day conferences informal feedback session</td>
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<td>RHP Year Two</td>
<td>Core concepts of primary care medicine and pharmacy, community resources team approaches to health care, practice-based issues</td>
<td>Seminars, case-based small group discussions, rural health conferences, group presentation of annotated bibliography on a rural health topic, optional conferences and workshops, selected readings and assignments</td>
<td>9 monthly evening dinner seminars (3hrs/month) 1-2 day field trip 1-3 day conferences informal feedback session</td>
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<td>RHP Year Three</td>
<td>Concepts of community-based medicine/pharmacy and COPC, core concepts of PC medicine and pharmacy vis-à-vis M3 curriculum and rural practice</td>
<td>Seminars, small group discussions, A community health survey, Windshield analysis, @ design COPC project, selected readings</td>
<td>9 monthly evening dinner seminars (3 hrs/month)</td>
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<td>RHP Year Four</td>
<td>Clinical skill development in rural settings, community structure study, implementation of COPC project in rural community</td>
<td>Immersion experience. 70% clinical responsibilities; 30% community projects, which include collaboration with community individuals / organizations - Log clinical encounters into computer database; present COPC project in Poster Session; compile community notebook</td>
<td>16-week preceptorship in rural Illinois community working with a rural primary care physician or pharmacist</td>
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Clay Ford from Harrisburg, interacts with rural grade school students as they discuss how the brain and nervous system work.
RMED/RPHARM students observe a rural emergency crew lift a tractor off a farmer during a mock roll-over accident during the farm tour.
On the Road with Southern Exposure

Rural Health Workforce Development Program HRSA Award No. 1
G98RH19825-01-00
M4/P4 Preceptorship and Community Service

Statewide Distribution of Rural Preceptorship Sites

25 collaborating rural hospitals
36 rural teaching physicians
8 rural teaching pharmacists
Collaborating Hospitals

1. Anna
2. Carlinville
3. DeKalb
4. Dixon
5. Fairfield
6. Freeport
7. Galena
8. Galesburg
9. Glasford City
10. Havana
11. Litchfield
12. Macomb
13. Marion
14. Marshall
   Temp Haute
15. Mattoon
16. Metamora
17. Monticello
18. Murphysboro
19. Ottawa
20. Pittsfield
21. Pontiac
22. Princeton
23. Robinson
24. Spring Valley
25. Wateeke
COPC Projects

• Project Categories
  – Health Education/Promotion
  – Access and Healthcare Utilization
  – Environment and Organization of the Community
  – Illness and Disease in Rural Communities

• Community-based

• Student-centered

• Population-focused
COPC Makes a Difference

• Kid Farmers: Age Appropriate Tasks on the Farm
• Macoupin County Kids Against Tobacco
• Medical Translation for High School Spanish Students
• Barriers to Diabetes Care
• Women of Bureau County: Obesity and Health Promotion
• Methamphetamines in Our Backyard
• Hospice Services in Rural Illinois
• Assessing Geriatric Depression in a Rural Community
How do you Know if you Have Really Grown Your Own?
Evaluation of Health Professions 
Student Activities

• Overall Curriculum and Program
  – Longitudinal Community Health Survey (1\textsuperscript{st} and 4\textsuperscript{th} years)
  – Exit Survey at graduation
  – Gather demographic data and contact information for long-term tracking

• 16-18 Week Preceptorship in rural community with PCP or pharmacist
  – Pre/Post skills assessment
  – Evaluation by preceptor

• COPC Project for RMED and RPHARM students
  – Present Project at Research Day
  – Instructor graded

• Rural Interdisciplinary Health Professions Preceptorship – 6 weeks
  – Pre/Post attitudes and knowledge surveys
  – Focus Group evaluations
  – Gather demographic data and contact information for long-term tracking
How Is RMED Doing?

- RMED Applicants from 95% of Illinois’ rural counties
- 294 students (Classes of 1993-2016)
- Matriculants from over 80% of Illinois’ rural counties
- 227 graduates (164 in practice; 62 in residency training)
- 66 students in medical school
- 80% of graduates attend primary care residencies
- 75% of graduates in Illinois practicing in towns less than 20,000 people
- RMED graduates practicing in 78 Illinois towns
- 84% of graduates in Illinois practicing primary care medicine
- 62% of RMED graduates practicing in Illinois are within 60 miles of their hometown
RMED GRADUATES PRACTICING IN ILLINOIS 1997 - 2008

Number of Graduates per County
- Yellow: 1
- Blue: 2
- Orange: 3
- Green: 4
- Pink: 6

N=118 practicing in Illinois in 57 counties
102 counties in Illinois

January 2012
RMED grads receive the traditional symbol of rural America –
the John Deere tractor!
Outcomes

University of Illinois RMED graduates are significantly more likely than non RMED University of Illinois graduates to be practicing Family Medicine in a CMS shortage location, be practicing primary care (FM, IM or PEDS), regardless of specialty be in a CMS shortage location. Rural RMED vs. Non RMED comparisons are statistically significant, p < .05.

Practicing RMED and Non RMED Graduates by Specialty and Location, Univ. of IL COM, Classes 1997-2007

- Family Medicine and located in CMS PC shortage zip code
- Practice Specialty Primary Care (FM, IM, PEDS)
- Located in CMS-designated PC shortage zip code
Comparison of the Relative Risk (RR) of practicing FM, Primary Care, in rural location, or CMS shortage location indicates that the changes of these outcome are substantially higher for RMED graduates than non RMED graduates, ranging from 2.49 times higher related to primary care to 9.7 times higher related to practice in a CMS shortage area. All RR comparisons are statistically significant, p < .001.
Retention Outcomes - Years in Rural Practice

Average years in rural practice is consistent with time since completion of residency among RMED graduates. Of the 160 graduates, 84 have continuously practiced in a rural location since completion of training.

Average Years in Continuous Rural Practice, RMED Graduates Classes 1997-2007, n = 84
Success at Its Best
National Center for Rural Health Professions

Sampling of Other Projects
Native American Pathway

- Outgrowth of Kellogg RPRP grant initiative
- Promote health careers opportunities for Native Americans
- Met with: community development groups; hospital administrators; NA students; tribal representatives – Wiyot, Yurok, Tolowa, Karuk, and Hoopa tribes (northern California); Northern Arapahoe and Eastern Shoshone (Wind River Reservation, Wyoming)
- Only program promoting rural PC and retention in tribal lands
Princess Naradhiwas University: Thailand

- 1st international medical school modeled after the Illinois RMED Program
- ‘Grow Your Own’ philosophy
- Meets WHO goals of implementing PHC in developing countries
- Serves as a model for rural PHC programs in other parts of the world particularly in conflict/post conflict regions
- Graduates will be honored at 2013 Network: TUFH annual meeting in Ayutthaya, Thailand
WHO Collaborating Center

- Centre for Developing and Sustainable Human Resources for Health – with emphasis on PHC
- Member of Network: Towards Unity for Health – Education for Health (now located in Pune, India)
- MOU with Maastricht University: 18-week Research Clerkship
- MOU with PNU in Songkla, Thailand
- MOU for a rural Illinois rotation with University of Aberdeen, Scotland
Collaboration in Rural and Primary Health Care

Website:
www.ncrhp.uic.edu