

Environmental Competence

- Environmental competence refers to the ability of both public and private health providers and policymakers to be responsive to the constellation of physical, social, and economic environments in which patients and populations live.
- Ahern and Hendryx (2008)

Background

- Providing rural health care that considers environmental determinants of health, environmental impact on health, and outcomes attributed to environmental issues is complex due to the need for providers to be competent not only in social and health sciences, but also in environmental health concepts.
- Health care providers in rural communities must be able to assess individual risks and community environmental needs, perform diagnosis, plan for intervention and management, and develop evaluation strategies.

Study Aims

• The purpose of this study was to develop and validate a comprehensive competency guide for use by rural primary care providers in the provision of environmentally competent care to rural people.

Procedures/Protocols: Phase One Development of the Key Environmental Competencies for Rural Primary Care Providers

- Gathered existing, discipline specific competencies developed by a variety of entities including departments of environmental and public health, professional organizations, education organizations, and others.
- Exhaustive web searches, literature searches and key informant contacts used to identify existing competencies.

Procedures/Protocols: Development of the **Multidisciplinary Environmental Competency Guide for Rural Health Providers**

- consensus conference.

Procedures/Protocols: Phase Two Competency Guide Validation

- health education.
- Identify competencies and sub-competencies in need of modification to improve clarity.
- Ensure that sub-competencies are linked to the appropriate competency
- Identify competencies and sub-competencies that are applicable in rural primary care.

Results of Validation Study

- document.
- questions

Key Environmental Health Competencies for Rural Primary Care Providers

Cynthia A. Persily, PhD, Deputy Director WV Rural Health Research Center Johnna S. Beane BA, Research Associate, Mary Glenn Rice, BS, Graduate Research Assistant

• Consensus conference of key experts from environmental health, public health, rural health, and specific key primary care disciplines held in Washington, DC March 2009 to develop the Key Environmental Competencies for Rural Primary Care Providers. • A draft of the competency guide emerged at the end of this

• Additional meetings convened to resolve any outstanding issues using teleconferencing technology.

Validation Process/Results

- 113 people responded to an on-line survey in all or part.
- A-priori agreement by raters was set at 80%.
- All except one competency reached this benchmark (one competency reached 77.4% agreement in the area of clarity).
- All competencies that reached 80-89.9% agreement were reviewed by the researchers and the experts. Raters comments were also reviewed.
- Changes to competencies were made if in the judgement of the raters, researchers, and experts, they were warranted.

• We surveyed experts in environmental, public and rural health, and primary care to clarify and validate a list of competencies and sub-competencies for multidisciplinary environmental

• The specific aims of this portion of the study were to:

Examples of Changes to Competencies During Validation Process.

- Clarity:
- Revision of a competency originally stated as "recognize" environmental health variation" was changed to "recognize individual health variations attributable to the environment".
- Applicability:
- Revision of a competency originally stated as "access and mobilize resources for the plan and establish resources/linkages" was changed to "assist in the mobilization of resources to implement the plan of care". Revisions of this type were typically in response to reviewer comments about the scope and burden of particular competencies as related to the busy primary care provider.

 Survey provided background on the study, the definitions developed through the consensus process, and the competency

• Each competency was able to be viewed in the document and respondents were asked to complete the following three

• **Clarity:** Is this competency clear to you?

• **Content validity:** Does this competency belong where it is placed in the framework?

• Applicability: Is this competency essential for the rural primary care provider?

Limitations

- Experts who participated in the consensus conference were selected by organizations according to their expertise in environmental health, primary care, or rural health, however the limited number of experts (10) participating in the development of the competencies may limit the scope of the document.
- Participants in the validation survey were self-selected, and over-represent people with environmental interests, public health professionals, and faculty in higher education programs. Validation of the competencies by additional groups, especially additional representatives of the rural primary care provider community will be essential, as will future work to determine if attainment of these competencies actually impact health
- outcomes for rural people.





Endorsements

- WVRHRC seeking endorsement of competencies from professional organizations of interest:
- NEHA endorsement April 2010
- NRHA endorsement May 2010
- American Academy of Physician Assistants endorsement June 2010
- Pending endorsements by:
- American Academy of Family Physicians
- American Academy of Nurse Practitioners
- American Association of Colleges of Nursing
- Centers for Disease Control
- National Association of Local Boards of Health

Demographics of Respondents to Validation Survey

	Number	Percent
Primary Discipline		
Primary Care	18	16.5%
Other Health Professionals	8	7.3%
Faculty	24	22.0%
Public Health	59	54.1%
Primary Practice or Employment Sector		
Private Practice - Primary or Specialty Care	6	5.8%
Clinic Practice	5	4.8%
Public Health - Local, County, State Health Department	51	48.6%
Hospital	8	17.7%
College or University	25	23.9 %
Other	10	9.5%
Location of Practice/Employment		
Metropolitan Areas		
County in a metropolitan area with 1 million population or more	12	12.3%
County in a metropolitan area with 250,000 to 1 million population	20	20.4%
County in a metropolitan area of fewer than 250,000 population	18	18.4%
Total in Metropolitan Areas	50	51.1%
Non-Metropolitan Areas		
Urban area with a population of 20,000 or more and is adjacent to a metropolitan area	12	12.2%
Urban area with a population of 20,000 or more and is NOT adjacent to a metropolitan area	10	10.2%
Urban area with a population of 2,500-19,999 and is adjacent to a a metropolitan area	2	2.0%
Urban area with a population of 2,500 - 19,999 and is NOT adjacent to a metropolitan area	10	10.2%
Completely rural area or area that has less than 2,500 urban population that is adjacent to metropolitan area	3	3.1%
Completely rural area or area that has less than 2,500 urban population that is NOT adjacent to metropolitan area	11	11.2%
Total in Non-Metropolitan Areas	48	48.9%
Currently Providing Direct Patient Care in a Rural Primary Care S	Setting	
Yes	13	13.3%
No	85	86.7%



Policy Recommendations

- Integration of these competencies into current and future entry level and professional continuing education programs for rural primary care providers
- Adoption of these competencies by national organizations for inclusion in entry level rural primary care education programs.
- Adoption by accreditation agencies for rural primary care provider education programs as essential elements of those training programs.
- Integration of the competencies into future professional education programs by professional organizations that support rural primary care.
- Development of funding priorities for training programs to support the development of these competencies in the rural primary care workforce.
- Initiation of funding mechanisms to evaluate the impact of the development of these competencies in rural primary care providers on the health of the people and communities they serve.

Future Research

- Development of a web based guide of available resources to aid in the development of these competencies in rural primary care providers.
- Development of a series of interactive regional maps linking environmental risks to geographic regions and provider resources available relative to those risks.
- Use the competency guide to develop and test provider education programs in discipline-specific or interdisciplinary programs in rural setting.
- Analysis of the relationship between the use of these competencies in rural health education, practice, and service delivery and health outcomes in rural areas.

What Our Experts Envisioned

"Rural primary care providers are competent partners in helping to heal the Earth and it's people."



http://wvrhrc.hsc.wvu.edu