Technical Assistance on 2016 Criteria

Competency Mapping & Assessment Webinar
May 17, 2017

Empowering the Future: Creating Leaders for a Healthier World
All participants will be muted. So if you have a question, enter it here!

CEPH staff will see it above and will read and answer each question live!
At the top of the chat box, you will find helpful links from CEPH.
Some topics we’ll cover...

• Mapping competencies to coursework
• Ingredients for good assessment
• Types of documentation needed
Architecture of the MPH

- Foundational Knowledge
- Foundational Competencies
- Concentration Competencies
- APE
- ILE

Council on Education for Public Health
D2. Foundational Competencies

• All MPH students attain 22 competencies (CEPH-provided) across 8 domains
• Every student assessed on each competency at least once
  • Each must be mapped to and assessed in didactic coursework

1. Evidence-based Approaches to Public Health
2. Public Health & Health Care Systems
3. Planning & Management to Promote Health
4. Policy in Public Health
5. Leadership
6. Communication
7. Interprofessional Practice
8. Systems Thinking
### Assessment of Foundational Competencies for MPH in *Community Health*

<table>
<thead>
<tr>
<th>Foundational competency</th>
<th>Course number(s) and names or other requirement</th>
<th>Specific assessment opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evidence-based Approaches to Public Health</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Apply epidemiological methods to the breadth of settings & situations in public health practice | MPH 603: Principles of Epidemiology              | Assignment 2: simple random sampling  
Case study: screenings in clinical and community settings                                      |
| 2. Select quant. & qual. data collection methods appropriate for a given public health context | MPH 670: Research Methods                        | Week 15: project – mixed methods study design                                                   |
| 3. Analyze quant. & qual. data using biostatistics, informatics, computer-based programming and software as appropriate | MPH 605: Intro to Biostatistics                  | Exam 3: covers course learning objectives 2-9                                                   |
| 4. Interpret results of data analysis for public health research, policy & practice       | MPH 63: Principles of Epidemiology               | Week 7: PowerPoint presentations on LGBTQ health inequities                                     |
| **Public Health & Health Care Systems**                                                  |                                                 |                                                   |
| 5. Compare the organization, structure and function of health care, public health and regulatory systems across national & intl settings | MPH 602: Health Care Systems                    | Week 3: discussion question post and response                                                   |
Architecture of the MPH

- Foundational Knowledge
- Foundational Competencies
- Concentration Competencies
- APE
- ILE
D4. Concentration Competencies

• Articulates depth in concentration area beyond foundational competencies
• At least 5 distinct competencies per concentration area
• Write your own!
## Deemed ‘compliant’ before... (1 of 2)

<table>
<thead>
<tr>
<th>Concentration competencies</th>
<th>CEPH foundational competencies</th>
</tr>
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</table>
| **Promote capacity strengthening** | 7. Assess population needs, assets and capacities that affect communities’ health.  
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes |
| **Promote and demonstrate practice of socio-cultural and political awareness** | 8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs  
14. Advocate for political, social or economic, policies and programs that will improve health in diverse populations |
| **Demonstrate team leadership, motivation, negotiation, and conflict management skills** | 17. Apply negotiation and mediation skills to address organizational or community challenges |
| **Demonstrate credible and effective advocacy and communication skills** | 14. Advocate for programs and political, social and economic, policies that will improve health in diverse populations  
18. Select communication strategies for different audiences and sectors  
19. Communicate audience-appropriate public health content, both in writing and through oral presentation |
<table>
<thead>
<tr>
<th>Concentration competencies</th>
<th>CEPH foundational competencies</th>
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<tbody>
<tr>
<td>Apply analytical tools to answer research questions in public health</td>
<td>2. Select quantitative and qualitative data collection methods appropriate for a given public health context</td>
</tr>
<tr>
<td>Find, use, and interpret sources of public health data that use different research methods</td>
<td>3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate</td>
</tr>
<tr>
<td>Coordinate and develop an appropriate advocacy-based response to address a specific community health challenge or need.</td>
<td>4. Interpret results of data analysis for public health research, policy or practice</td>
</tr>
<tr>
<td>Utilize community assessments identifying needs, assets, capacity, and priorities</td>
<td>14. Advocate for political, social or economic policies and programs that will improve health in diverse populations</td>
</tr>
<tr>
<td>7. Assess population needs, assets and capacities that affect communities’ health.</td>
<td></td>
</tr>
</tbody>
</table>
## Made context specific...

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<th>Concentration competencies</th>
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<tr>
<td>Demonstrate oral and written communication and presentation skills to effectively communicate in health policy settings</td>
<td>19. Communicate audience-appropriate public health content, both in writing and through oral presentation</td>
</tr>
<tr>
<td>Analyze principles of equity, social justice, and human rights in maternal and child health programs.</td>
<td>6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels</td>
</tr>
<tr>
<td>Design a policy or program that considers theories, models and contemporary issues related to alcohol and substance abuse treatment</td>
<td>9. Design a population-based policy, program, project or intervention</td>
</tr>
</tbody>
</table>
## Other confusion we’ve seen

<table>
<thead>
<tr>
<th>Concentration competencies</th>
<th>Issue</th>
</tr>
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</table>
| Students will complete an integrative learning experience that demonstrates synthesis of  | **Not a competency**  
Required component of the curriculum                                                      |
| foundation and concentration competencies appropriate to the student’s education and professional goals. |
| Using NCHEC areas of responsibility or sub-competencies under each area as concentration competencies | Concentration competencies should encompass the seven areas of responsibility. The sub-competencies within each area should be used to plan the learning objectives in individual courses; however, they are too granular to serve as the concentration competencies themselves. |
| Competency repeated across concentrations                                                  | Must have at least 5 distinct competencies for each concentration    |
## Advanced rigor and depth

<table>
<thead>
<tr>
<th>Concentration competencies</th>
<th>CEPH foundational competencies</th>
</tr>
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<tbody>
<tr>
<td>Develop an efficient design for an observational or experimental study</td>
<td>2. Select quantitative and qualitative data collection methods appropriate for a given public health context</td>
</tr>
<tr>
<td></td>
<td>3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate</td>
</tr>
<tr>
<td></td>
<td>4. Interpret results of data analysis for public health research, policy or practice</td>
</tr>
<tr>
<td>Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety</td>
<td>9. Design a population-based policy, program or intervention</td>
</tr>
<tr>
<td></td>
<td>15. Evaluate policies for their impact on public health and health equity</td>
</tr>
<tr>
<td></td>
<td>18. Select communication strategies for different audiences and sectors</td>
</tr>
<tr>
<td>Apply quality and performance improvement concepts to address organization performance issues</td>
<td>10. Explain basic principles and tools of budget and resource management</td>
</tr>
</tbody>
</table>
## Template D4-1

<table>
<thead>
<tr>
<th>Assessment of Concentration</th>
<th>Competencies for MPH in <em>Biostatistics</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency</td>
<td>Course number(s) or other educational requirements</td>
</tr>
</tbody>
</table>
| 1. Ability to select appropriate research designs to meet the needs of various studies and ability to explain the limitations of implemented designs | MPH 735: Statistical Methods for Public Health Research  
MPH 793: Clinical Trials I | Week 4: SAS exercise 3  
Project: cohort designs  
Homework 6: randomized block designs |
| 2. Apply common probability distributions to public health outcomes | MPH 752: Biostatistics II | Homework 2: analysis of variance (ANOVA) |
| 3. Analyze moderately complex research data using statistical methods involving common linear statistical models | STAT 740: Advanced Regression Analysis  
MPH 735: Statistical Methods for Public Health Research | Homework 3: simple linear regression  
Quiz 2: multiple linear regression  
Week 3: R exercise 1 |
| 5. Communicate commonly used statistical ideas and methods to collaborators in non-technical terms, both orally and in writing | MPH 741: Biostatistical Case Studies & Collaboration  
MPH 720: Applied Practice Experience | Paper: case control designs  
PowerPoint presentation on deliverables for host site(s) |
ASSESSMENT

Foundational Knowledge

Foundational Competencies

Concentration Competencies

APE

ILE
Assessment ingredients

- Skilled assessor
- Well-suited activities
- Good competencies
Skilled assessor

Knowledgeable about the didactic underpinnings
Assessment ingredients

- Skilled assessor
- Well-suited activities
- Good competencies
CEPH requirements

The school or program documents **at least one specific, required assessment activity** (eg, component of existing course, paper, presentation, test) **for each competency** below, during which **faculty or other qualified individuals** (eg, preceptors) **validate the student’s ability to perform the competency**.

Assessment opportunities may occur in:
- foundational courses that are common to all students
- courses required for a concentration
- other educational requirements outside of designated coursework

All MPH students must be assessed at least once on each competency.

Assessment may occur in simulations, group projects, presentations, written products, etc.
Authentic assessment

A form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills.
Is my assessment authentic?

**Traditional Assessment**
- **Assessment:** Determines if students have absorbed curriculum
- **Mission:** Create competent public health professionals
- **Teach curriculum**
- **Known body of knowledge translated into curriculum**

**Authentic assessment**
- **Assessment determines if students can perform skills**
- **Mission:** Create competent public health professionals
- **Curriculum developed that enables students to perform skill well**
- **CEPH describes competency students must be able to perform**
## Traditional vs. Authentic Assessment

<table>
<thead>
<tr>
<th>Traditional Assessment</th>
<th>Authentic Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select a response</td>
<td>Perform a task</td>
</tr>
<tr>
<td>Contrived</td>
<td>Real-life</td>
</tr>
<tr>
<td>Recall/Recognition</td>
<td>Construction/Application</td>
</tr>
<tr>
<td>Teacher Structured</td>
<td>Student Structured</td>
</tr>
<tr>
<td>Indirect Evidence</td>
<td>Direct Evidence</td>
</tr>
<tr>
<td>Don’t teach to the test</td>
<td>Teach to the test</td>
</tr>
</tbody>
</table>
Working together

There are few skills that professionals can perform without base knowledge to go with it.

Example #1: Picking baseball players for your team

Example #2: Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.

- What is the knowledge needed by students before they would be able to demonstrate application?
- What might be good activities to use to assess whether or not students can apply these principles?
Example activities

• Analytic paper
• Multi-media presentation
• Debate
• Essay question on a test
• Create a newsletter/news story
• Create and deliver a poster presentation
• Write a policy briefing
• Needs assessment

• Write a letter to an elected official
• Analyze a real data set to answer a question
• Develop Congressional testimony
• Case Studies
• Role Plays
• Podcast
• Original research project

Others?
Where do rubrics fit in?

• **Step 1**: Identify what you want your students to know and be able to do – this is the competency.

• **Step 2**: Determine how students could demonstrate that they meet the competency and develop authentic tasks they could perform.

• **Step 3**: Identify the characteristics of good performance on the authentic task.

• **Step 4**: Construct a rubric to measure student performance on the task. To build the rubric, you will begin with the characteristics you identified in Step 3. Keep the number of criteria manageable.
Two types of rubrics

**Analytic**
- Performance judged separately for each characteristic that contributes to meeting of competency
- Points typically assigned to each characteristic

**Holistic**
- Considers all the criteria together, or holistically, instead of separately
- Each level of performance in a holistic rubric reflects behavior across all the criteria
## Oral Presentation Rubric

<table>
<thead>
<tr>
<th></th>
<th>4—Excellent</th>
<th>3—Good</th>
<th>2—Fair</th>
<th>1—Needs Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delivery</strong></td>
<td>• Holds attention of entire audience with the use of direct eye contact, seldom looking at notes</td>
<td>• Consistent use of direct eye contact with audience, but still returns to notes</td>
<td>• Displays minimal eye contact with audience, while reading mostly from the notes</td>
<td>• Holds no eye contact with audience, as entire report is read from notes</td>
</tr>
<tr>
<td></td>
<td>• Speaks with fluctuation in volume and inflection to maintain audience interest and emphasize key points</td>
<td>• Speaks with satisfactory variation of volume and inflection</td>
<td>• Speaks in uneven volume with little or no inflection</td>
<td>• Speaks in low volume and/or monotonous tone, which causes audience to disengage</td>
</tr>
<tr>
<td><strong>Content/Organization</strong></td>
<td>• Demonstrates full knowledge by answering all class questions with explanations and elaboration</td>
<td>• Is at ease with expected answers to all questions, without elaboration</td>
<td>• Is uncomfortable with information and is able to answer only rudimentary questions</td>
<td>• Does not have grasp of information and cannot answer questions about subject</td>
</tr>
<tr>
<td></td>
<td>• Provides clear purpose and subject; pertinent examples, facts, and/or statistics; supports conclusions/ideas with evidence</td>
<td>• Has somewhat clear purpose and subject; some examples, facts, and/or statistics that support the subject; includes some data or evidence that supports conclusions</td>
<td>• Attempts to define purpose and subject; provides weak examples, facts, and/or statistics, which do not adequately support the subject; includes very thin data or evidence</td>
<td>• Does not clearly define subject and purpose; provides weak or no support of subject; gives insufficient support for ideas or conclusions</td>
</tr>
<tr>
<td><strong>Enthusiasm/Audience Awareness</strong></td>
<td>• Demonstrates strong enthusiasm about topic during entire presentation</td>
<td>• Shows some enthusiastic feelings about topic</td>
<td>• Shows little or mixed feelings about the topic being presented</td>
<td>• Shows no interest in topic presented</td>
</tr>
<tr>
<td></td>
<td>• Significantly increases audience understanding and knowledge of topic; convinces an audience to recognize the validity and importance of the subject</td>
<td>• Raises audience understanding and awareness of most points</td>
<td>• Raises audience understanding and knowledge of some points</td>
<td>• Fails to increase audience understanding of knowledge of topic</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Work Effectively in Teams

<table>
<thead>
<tr>
<th>Unsatisfactory 1</th>
<th>Developing 2</th>
<th>Satisfactory 3</th>
<th>Exemplary 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not collect any information that relates to the topic.</td>
<td>Collects very little information—some relates to the topic.</td>
<td>Collects some basic information—most relates to the topic.</td>
<td>Collects a great deal of information—all relates to the topic.</td>
</tr>
<tr>
<td>Does not perform any duties of assigned team role.</td>
<td>Performs very little of assigned duties.</td>
<td>Performs nearly all assigned duties.</td>
<td>Performs all duties of assigned team role.</td>
</tr>
<tr>
<td>Always relies on others to do the work.</td>
<td>Rarely does the assigned work—often needs reminding.</td>
<td>Usually does the assigned work—rarely needs reminding.</td>
<td>Always does the assigned work without having to be reminded.</td>
</tr>
<tr>
<td>Is always talking—never allows anyone else to speak.</td>
<td>Usually doing most of the talking—rarely allows others to speak.</td>
<td>Listens, but sometimes talks too much.</td>
<td>Listens and encourages others to participate.</td>
</tr>
</tbody>
</table>
21. Perform effectively on interprofessional teams

For example, communicating, influencing others, leadership, teamwork, fostering relationships, conflict management

<table>
<thead>
<tr>
<th>Self/Peer Report</th>
<th>Situational Judgment Tests</th>
<th>Direct Observation</th>
</tr>
</thead>
</table>
| Use self and peer report  
- Contribution to team’s work  
- Interactions with teammates  
- Contribution to keeping team on track  
- Possession of relevant knowledges, skills and abilities to contribute to project | “SJT”s”  
Multiple choice test asking students to react to hypothetical interprofessional situations | Direct observation by faculty of students in interprofessional situations, whether real or simulated  
Use rubric to assess |

What are the strengths and weaknesses of each method?  
Can any of them stand on their own?  
Which might work together well?
Now, to put it all together

• Clear links between template and syllabus

• Learning objectives support identified competencies

• Assessments are reasonable, align with competencies
How do I show the site visit team?

• Helpful to include identified competencies directly on syllabus

• Assessment activities must include sufficient detail

• May need to include assessment in ERF if syllabus lacks detail

• Assignment/project rubrics can be good evidence
Make assessment clear

Butterflies
Background
The Frogs Class has been learning about Spring. They are learning that Butterflies come out in the Spring when flowers start to bloom. They are painting butterflies.

DC Common Core Standards
Approach to Learning
1. Attends and engages with curiosity.
2. Shows persistence.
3. Demonstrates strength and coordination of small muscles.

Spring Flowers
Background
The Frogs 1 Class is learning about Spring. They are making spring flowers by painting paper plates.

DC Common Core Standards
Approach to Learning
1. Attends and engages with curiosity.
2. Shows persistence.
3. Demonstrates strength and coordination of small muscles.
**PH 605: Data Analysis**

<table>
<thead>
<tr>
<th>Week 1: Epidemiology methods</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2: Epidemiology methods cont.</td>
<td></td>
</tr>
<tr>
<td>Week 3: Qualitative data collection</td>
<td></td>
</tr>
<tr>
<td>Week 4: Exam #1</td>
<td></td>
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<tr>
<td>Apply epi methods to the breadth and depth of settings in public health practice</td>
<td>PH 605: Data Analysis</td>
<td>Exam #1</td>
</tr>
<tr>
<td>Select quant &amp; qual data collection methods appropriate for a given ph context</td>
<td>PH 605: Data Analysis</td>
<td>Exam #1</td>
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## PH 606: Health Disparities

<table>
<thead>
<tr>
<th>Week</th>
<th>Assessment opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1: Structural bias, social inequities</td>
<td>Class presentation</td>
</tr>
<tr>
<td>Week 2: Chronic diseases</td>
<td></td>
</tr>
<tr>
<td>Week 5: Mental health</td>
<td>Submit health equity paper #1</td>
</tr>
<tr>
<td>Week 8: Violence</td>
<td>Submit health equity paper #2</td>
</tr>
<tr>
<td>Week 15: Geographic disparities</td>
<td>Class presentation</td>
</tr>
</tbody>
</table>

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<th>Foundational competency</th>
<th>Course number &amp; name</th>
<th>Assessment opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss means by which structural bias, social inequities, racism undermine health</td>
<td>PH 606: Health Disparities</td>
<td>Health equity paper #1</td>
</tr>
<tr>
<td>Communicate audience-appropriate public health content, in writing and through oral presentation</td>
<td>PH 606: Health Disparities</td>
<td>Health equity paper #2</td>
</tr>
<tr>
<td>Advocate for policies/programs that will improve health in diverse populations</td>
<td>PH 606: Health Disparities</td>
<td>Health equity paper #2</td>
</tr>
</tbody>
</table>

- **Foundational competency**
  - Discuss means by which structural bias, social inequities, racism undermine health
  - Communicate audience-appropriate public health content, in writing and through oral presentation
  - Advocate for policies/programs that will improve health in diverse populations

- **Course number & name**
  - PH 606: Health Disparities

- **Assessment opportunity**
  - Health equity paper #1
  - Health equity paper #2
  - Class presentation
PH 606: Health Disparities (2 of 2)

- **Health equity paper #1**
  - Select a topic of interest and discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels

- **Health equity paper #2**
  - Write an op-ed for the local newspaper that describes the health disparity of interest, presents statistical evidence and advocates for funding

- **Class presentation**
  - Develop a 5- to 7-minute presentation targeted to the City Council to advocate for greater funding for your health disparity of interest
Contact us with your questions!

• At the office
  • Call us: 202-789-1050
  • Email CEPH Staff: http://ceph.org/about/staff/

• On the road
  • ASPPH, SOPHE, APTR, AAPHP, APHA Annual Meetings
    http://ceph.org/assets/Training_Timeline.pdf

• On the web
  • Upcoming webinars: http://ceph.org/assets/Training_Timeline.pdf
  • Follow us on Twitter: @CEPHtweets
  • Find answers to FAQs: http://ceph.org/faqs/2016criteriafaq/
All participants will be muted. So if you have a question, enter it here!

CEPH staff will see it above and will read and answer each question live!