

From Data to Delivery: A 6-step Framework to Public Health Solutions



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This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$7,670,233 with 0% percentage financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.



**THE OHIO STATE
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Pregnancy-related Deaths have Increased in Ohio from 2008-2020 ... and 62% were preventable



Addressing Public Health Gaps

Solutions through data and education





Objectives

You'll leave ready to...

1. Solve Public Health Education Problems with a Clear Framework

We will provide a framework to design educational curricula to address public health concerns by utilizing Kern's 6-step model

2. Build Your Team

We will discuss how to identify key stakeholders related to public health challenges and form interdisciplinary teams

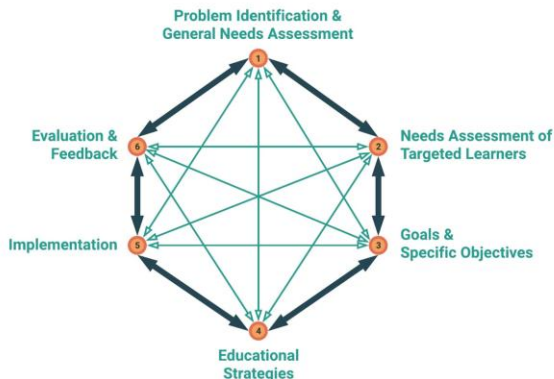
3. Innovate

We will highlight innovative tools to implement your curriculum including medical simulation and podcasting

1. Kern's 6-step Framework

KERN'S 6 STEPS

CURRICULUM DEVELOPMENT for
Health Professions Education can be divided into 6 STEPS.

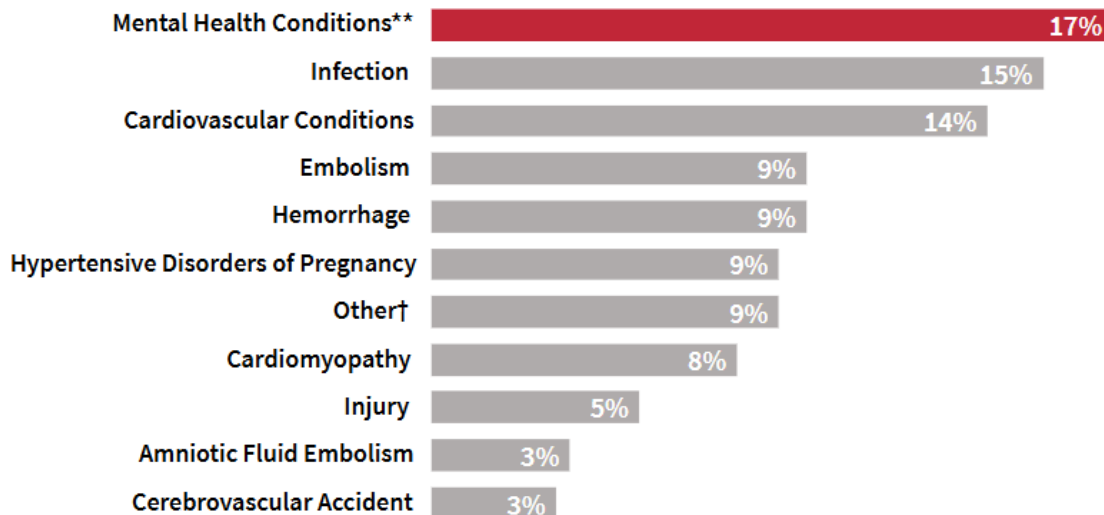


By convention, **KERN'S 6 STEPS** are presented in a specific order, however curricular development involves fluidly transitioning among all steps.

@MedEdModels

- Used for building educational curricula
- This simple framework can provide a data-driven approach in public health solutions
- Note the lines connecting all steps: the model is **dynamic** and your curriculum **constantly evolves**

Leading Causes of Pregnancy-Related Deaths in Ohio from 2008-2020.*



*2019 data not included. To achieve more timely data and prioritize the review of deaths related to COVID-19, ODH and PAMR made the difficult decision not to review 2019 deaths.

**Mental health conditions include deaths due to substance use disorder/overdose, depression, anxiety disorder, and other psychiatric conditions.

† Other includes deaths due to renal disease, anesthesia complications, autoimmune diseases, gastrointestinal diseases, metabolic/endocrine, neurologic conditions, pulmonary conditions, hematologic conditions, cancer, and unknown causes.

Data source: Maternal Mortality Review Information Application (MMRIA) and Ohio Department of Children and Youth's Pregnancy Associated Mortality Review (PAMR) Committee



2. Targeted Needs Assessment



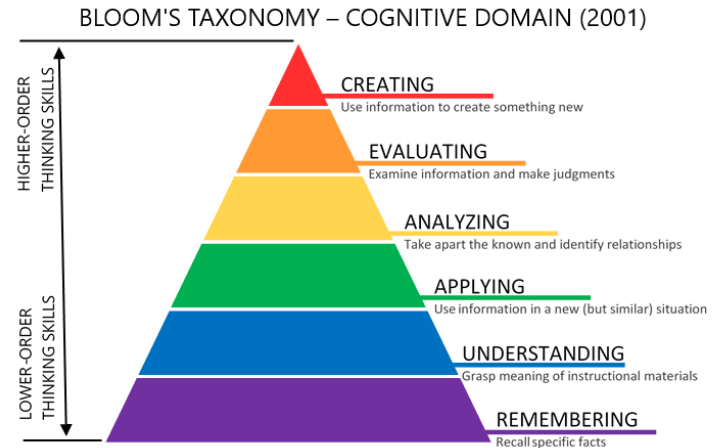
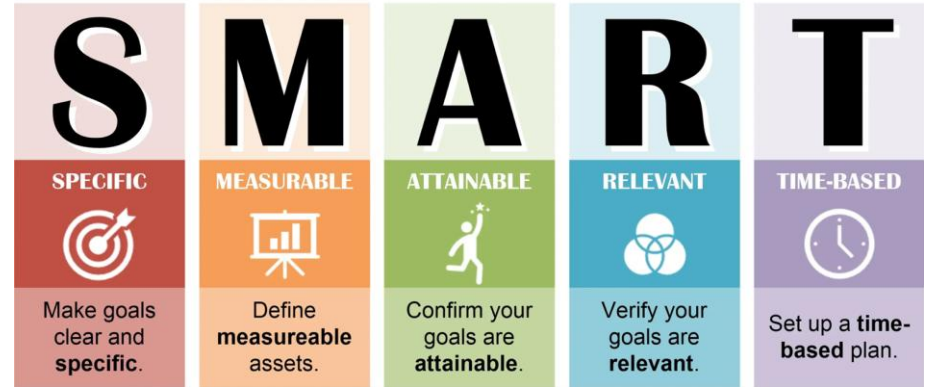
- This step focuses on assessing the specific needs of the intended audience or targeted learners. Who is your audience?
- Often in the form of a survey or focus group
- This will guide your curriculum development to address the needs you uncover
- **Ex. target audience is emergency medicine (EM) nurses/physicians/prehospital providers; survey regarding specific knowledge gaps and self-efficacy guides curriculum**

3. Goals and Objectives

- In this step, **specific, measurable** educational goals and objectives are outlined.
- These goals and objectives help direct the choice of curricular content, suggest effective learning methods, and enable evaluation of learners and the curriculum.
- **Ex.**

Goal: Our goal is to provide simulation-based education on key causes of maternal mortality and provide the opportunity to practice keys skills.

Objectives: By the end of this course learners will be able to... perform high-quality CPR on the manakin with lateral uterine displacement.



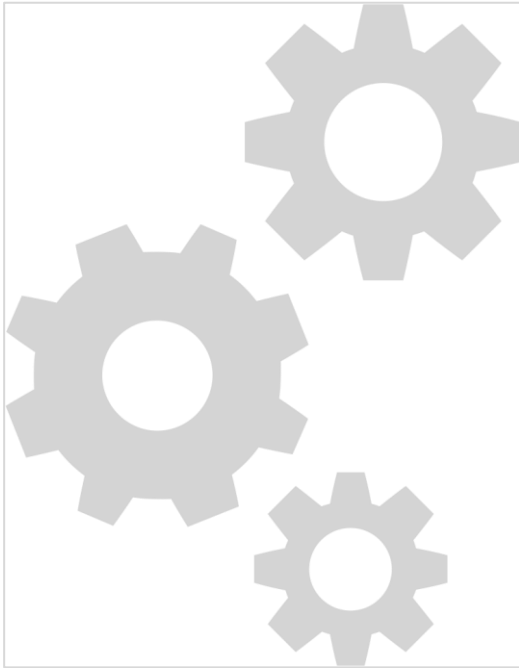


4. Educational Strategies



- How do you want to achieve these goals/objectives? Through what educational means? What format fits your needs?
- **Ex. Virtual simulation and in-person high-fidelity simulation provide a psychologically safe learning environment for HALO (High Acuity Low Occurrence) procedures and cases.**
- **Ex. Podcasts provide the opportunity to reach a broad audience in an engaging format.**
- Other forms: gamification, quizzes, PBL, VR... this is the fun part where you can be innovative!

5. Implementation



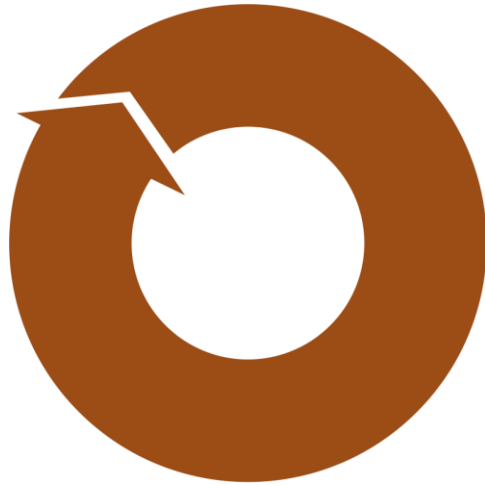
- This step is the pragmatic part where you deliver your curriculum. You must ensure that sufficient resources, financial support, and administrative strategies are in place to successfully implement the curriculum.
- **Ex. Forming an interdisciplinary team was key to successful implementation of our program. Our interdisciplinary team plays to the strengths of team members and their expertise.**



Our Team

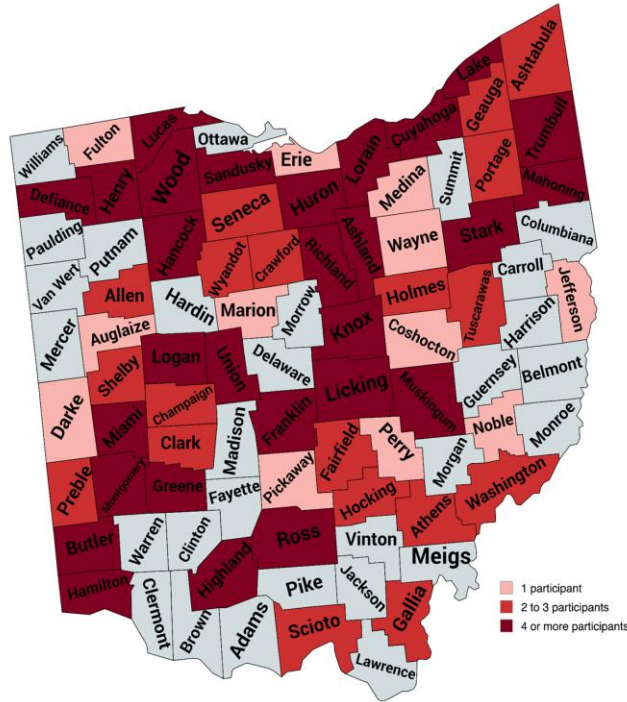
- An interdisciplinary team of Nurses, Emergency Physicians, OB/Gyn Physicians, Administrators, Simulationists, Researchers
- Funded through the Department of Children and Youth (HRSA Maternal Health Innovation Grant).

6. Evaluation and Feedback



- The final step involves evaluating the curriculum and providing feedback. This step closes the loop in the curriculum development cycle and helps in refining and improving the curriculum based on the evaluation results.
- **Ex. pre- and post-testing of participants, critical analysis of feedback from participants after each session, evaluation of other deliverables. Data is also used for scholarship.**
- This leads to program changes and expansion such as our train-the-trainer sessions and podcasts series.

Training Outcomes



"I liked the experience of virtual simulation and use of Zoom for delivery... nicely done. Also appreciated the creativity in the skills sessions."

"The training was incredibly helpful and relevant to my job. I feel much more confident in managing obstetric emergencies. The developers, instructors, and simulators did an excellent job. I highly recommend this course for EM and OB/GYN physicians."

"Her first patient on Wednesday was a post-partum eclamptic patient and she 'knew exactly what to do and how to do it boom boom boom' because of our course" - Participant story told to trainer

486 Participants from 59 Counties

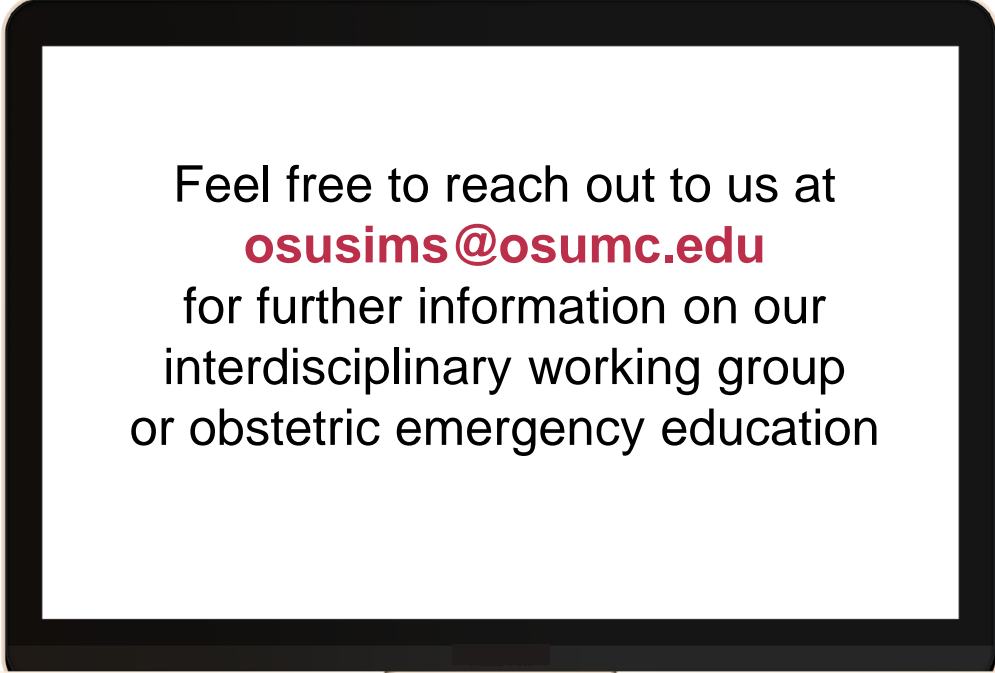


In Summary

- **Kern's simple 6-step model** can help you **build educational curricula** to address public health challenges by providing a data-driven, pragmatic framework.
- **Interdisciplinary teams** lead to diverse perspectives- play to each team member's strengths.
- Get creative with educational strategies to implement your curriculum- **simulation** is one option!
- The model is **dynamic** and your program will continue to **change and evolve** through feedback and evaluation.

Thank you for your time and attention!

We're happy to answer any questions.



Feel free to reach out to us at
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for further information on our
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or obstetric emergency education