

## BACKGROUND

- Research demonstrates robust associations between exposure to environmental toxicants & reproductive health
- Training in environmental health is largely absent from medical school curriculum & Ob/Gyn residency & fellowship trainings
- To address this unmet need we designed an elective rotation in Reproductive Environmental Health & Justice (REHJ), in conjunction with the UCSF PEHSU

## OBJECTIVES

1. Provide OB/GYN Residents/Fellows with experience in all aspects of REHJ including:
  - Scientific analysis & medical knowledge
  - Effective, culturally-appropriate communication to the general public, the media, & the health care professionals
2. Develop competencies and performance indicators for REHJ

## METHODS

- Modeled on the current UCSF PEHSU rotation
- Incorporates previously established competencies & objectives in EH from the Ambulatory Pediatric Association, the American College of Occupational & Environmental Health, & the Institute of Medicine.
- Adheres to EPA's Guidelines for the Preparation & Professional Development of Environmental Educators

## RESULTS

An elective rotation: A month-long block in the context of a 3-year fellowship in MFM or a 4-year residency in Ob/Gyn



### I. Curriculum:

#### 1. Didactic training

- REHJ science (i.e., precautionary principle, timing of exposures, developmental susceptibilities, mechanisms of metabolism, exposure half-lives, trans-placental passage, etc.)
- Clinical manifestations of reproductive toxicants, i.e., lead, mercury, & endocrine disruptors

#### 2. Clinical rotation

- Residents & fellows will attend clinics in the Region 9 PEHSU to gain hands-on experience in the diagnosis, management, & education of patients with EH exposures

#### 3. A project to disseminate REHJ knowledge,

- For example:
- Create a training program for prenatal care providers in the local county clinics
  - Use local data to identify areas of the community with the highest risks to target community outreach

## RESULTS, cont.

### II. Competencies for MFM fellows:

#### ACADEMIC PERSPECTIVE

- 1) Write grant application (G)
- 2) Submit study (G)
- 3) Analyze available data (EH)
- 4) Collect primary data, analyze the results, & summarize the findings (G)
- 5) Publish a peer-reviewed article or present at a professional meeting (G)
- 6) Appreciate the policy implications & formulate recommendations based on clinical & epidemiologic research findings (G)
- 7) Develop curricula to teach the fundamentals of REHJ (EH)
- 8) Understand the impact of the environment on fetal development & translate that understanding into practice, teaching, & research (G)

#### INDIVIDUAL PATIENT CARE PERSPECTIVE

- 1) Take an environmental history (EH)
- 2) Evaluate conditions linked to the environment & understand prenatal exposures that may lead to disorders in later in life (EH)
- 3) Utilize a specialized EH laboratory & interpret results (EH)
- 4) Report health conditions to the state or local DPH (G)
- 5) Develop a plan to reduce a patient's exposure to environmental contaminant(s) (EH)
- 6) Evaluate the effectiveness of therapies & methods of reducing environmental exposures (EH)
- 7) Coordinate community resources to improve a patient's well-being (G)
- 8) Respond to questions about acute exposures from patients & health care providers who call a Poison Control Center (EH)
- 9) Write a case report about an individual patient & critically review the literature on that patient's environmental health problem (EH)

## RESULTS, cont.

### COMMUNITY ADVOCACY PERSPECTIVE

- 1) Assess a health problem in a community (G)
- 2) Assess an environmental exposure in a community (EH)
- 3) Communicate environmental risks to community members, school board, political groups, & other stakeholders (EH)
- 4) Develop & implement community-based intervention (G)
- 5) Evaluate effectiveness of a community intervention (G)
- 6) Work as a member of a multidisciplinary team (G)
- 7) Develop media literacy as an advocacy tool in promoting environmental health (EH)
- 8) Interpret legal & regulatory authority as well as non-regulatory approaches as they relate to reproductive health & the environment (EH)
- 9) Prepare & present testimony before local, state, & national legislators (EH)

## CONCLUSIONS

Implementation of the proposed REHJ elective for OBGYN residents & MFM fellows will promote knowledge transfer from the PEHSU to the OB/GYN community & ultimately support improved child health outcomes by extending environmental health competency to reproductive health professionals.

## REFERENCES

Available at: <http://prhe.ucsf.edu/publications>

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