

Supplemental Learning Experience: **International Child Health**

These competency-based goals and objectives have been developed by the AAP Section on International Child Health working group on Pediatric Resident Education. This working group was established in 2006 to more systematically address identified barriers to resident education in international health. These curriculum guidelines were developed in response to the lack of standardized guidelines for international health training in pediatric residencies. They represent a consensus by pediatricians who participate in global health education in numerous pediatric residency programs throughout the United States and Canada*.

These curriculum objectives are intended as **comprehensive guidelines** for pediatric residency programs offering some organized form of training in global or international health, which might include a didactic curriculum, international experience, or both. They are *not* meant to be prescriptive or encourage requirements for residency programs in any way. Residency programs directors are encouraged to review these guidelines and adapt to the needs of the individual residency program. Individual residents are encouraged to utilize and adapt these guidelines to assess their progress in meeting these objectives throughout residency training.

Primary Goals

GOAL: International Child Health. Understand general principles related to health of children in developing countries and how these principles apply to underserved populations in the U.S.

PEDIATRIC COMPETENCIES

Competency 1: Patient Care

Provide family-centered patient care that is development- and age-appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

1. Use a logical and **appropriate clinical approach** to the care of patients in a developing country setting, utilizing **locally available resources**, and applying principles of **evidence-based decision-making** and problem-solving.

2. Understand the approach to pediatric patients with the following presentations in developing countries and initiate appropriate work-up and management:

Diarrhea/dehydration

Respiratory Distress

Fever

Seizures/Altered Mental Status

Malnutrition (including Severe Acute Malnutrition)

3. Provide **culturally sensitive care and support** to patients and their families.

4. Participate in **health promotion and injury/disease prevention** activities in an international setting, utilizing local guidelines and practices.

Competency 2: Medical Knowledge.

Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a pediatrician; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care and community health.

Epidemiology/Public Health:

1. Describe the epidemiology, trends, and major causes of **infant and child mortality and morbidity** in developing countries, and contrast to that in developed countries.
2. Recognize the **major underlying socioeconomic and political determinants of infant/child health**, and how these impact inequities in child survival and health care access between and within countries.
3. Describe **known effective interventions, including prevention and treatment**, for reducing under 5 mortality and morbidity (e.g., vitamin A supplementation, exclusive breastfeeding, etc.).
4. Describe the epidemiology of **neonatal mortality**, and compare/contrast common causes including perinatal asphyxia and neonatal infections to under-five mortality. Identify **prevention and treatment strategies** (e.g., skilled delivery at birth) specifically aimed at reducing neonatal morbidity and mortality.
5. List the leading causes of **maternal mortality** in the developing world, how they are impacted by health care systems, and contrast them with those in industrialized countries.
6. Identify epidemiological trends and significance of **emerging infectious diseases** in the developing world.
7. Understand the impact of **environmental factors**, including safe water supply, sanitation, indoor air quality, vector control, industrial pollution, climate change and natural disaster on child health in developing countries.
8. Demonstrate a basic understanding of **health indicators** and **epidemiologic tools and methods**, and how they may be used in settings with limited resources to monitor and evaluate the impact of public health interventions.
9. Understand the common childhood **injuries, including drowning, ingestions, burns and motor vehicle accidents**, that contribute to childhood morbidity and disability in the developing world, and describe prevention strategies.

Malnutrition and Infectious Diseases:

10. Recognize signs and contrasting features of:

Underweight

Stunting (chronic malnutrition)

Acute Malnutrition – severe/moderate, complicated/uncomplicated

Micronutrient deficiencies (iron, vitamin A, iodine, zinc)

Low birth weight and associated maternal risk factors

Understand and compare the different **anthropometric measures** used to diagnose malnutrition, and principles of **prevention and management** of these different disorders.

11. Describe the interaction between malnutrition/micronutrient deficiencies and infectious diseases in infants and young children.

12. Become familiar with the presentation, diagnosis, management, and prevention strategies of the following specific diseases in resource-limited settings, based on local and international guidelines:

Malaria - uncomplicated and complicated/severe (e.g. Cerebral malaria)

Pneumonia

Diarrhea and dysentery

Measles

Neonatal infections including neonatal tetanus

HIV/AIDS and related infections/complications

Tuberculosis

Typhoid Fever

Dengue Fever

13. List the **vaccine-preventable diseases** and the immunizations available in developing countries, and know the current international vaccine policies and recommendations (WHO EPI).

14. Identify conditions that contribute to **morbidity and impaired cognitive development** in the developing world such as intestinal parasites, hearing loss, birth complications, anemia, infections (eg cerebral malaria), nutritional deficiencies, injuries, and environmental toxin exposures.

Specific Populations

15. Describe common health issues faced by **immigrant and refugee populations** in developed nations.

16. Describe health issues of children in the developing world affected by humanitarian crisis, including **refugees, internally displaced, and orphans**.

17. Understand the health and psychological impact of certain activities affecting children including **child trafficking, child soldiers and child labor**.

17. Identify specific health issues and needs of **international adoptees**, and describe appropriate screening and counseling for adopting families.

18. Understand the challenges faced by children living with **disabilities** in resource-poor settings, and describe prevention strategies and models of support.

Competency 3: Interpersonal Skills and Communication

Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families, their communities, and professional associates.

1. Appropriately **utilize interpreters and communicate effectively** with families who speak another language.
2. **Communicate effectively and respectfully with physicians and other health professionals** in an international setting, in order to share knowledge and discuss management of patients.
3. Develop **effective strategies for teaching** students, colleagues and other professionals in settings with varying levels of knowledge or understanding of medical English.
4. Demonstrate awareness of **effective communication approaches** for delivery of health care and promotional messages in communities with **limited literacy and education**.

Competency 4: Practice-based Learning and Improvement

Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one's patient care practice.

1. Identify **standardized guidelines** (e.g., WHO/UNICEF) **for diagnosis and treatment** of conditions common to developing countries and adapt them to the individual needs of specific patients.
2. Know and/or access **appropriate medical resources** and apply them to the care of patients in the developing country setting.
3. Understand the principles of **evidence-based medicine** and apply them when reviewing recent literature and considering the implications for impact on practice.
4. **Work collaboratively with health care team members** to assess, coordinate, and improve patient care practices in settings with limited resources.
5. Apply and improve upon **physical examination skills and clinical diagnosis** in settings where diagnostic studies are limited.
6. Establish **individualized learning objectives** for an international elective and strategies for meeting those objectives.
7. Identify and utilize the **resources needed to prepare for an international rotation or work** in a less developed country.
8. Understand the role of the pediatrician in responding to **humanitarian emergencies and disaster relief efforts**, within the context of participating local and international organizations, and become familiar with available resources to prepare for volunteering in this setting.

Competency 5: Professionalism.

Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical

principles and sensitivity to diversity when caring for patients in a developed *or* developing country setting.

1. Demonstrate a commitment to **professional behavior** in interactions with staff and professional colleagues and be respectful of differences in knowledge level and practices.
2. Give examples of **cultural differences** relevant to care of international populations and how **traditional medicine** and Western/scientific medicine can conflict with or complement one another.
3. Identify **common ethical dilemmas and challenges** confronted when working in a setting with limited resources or different cultural values.
4. Understand the **ethical standards and review processes for research** with human subjects carried out in developing countries.
5. **Recognize personal biases** in caring for patients of diverse populations and different backgrounds and how these biases may affect care and decision-making.
6. **Plan a responsible and ethically-guided international rotation experience**, ensuring adequate preparation and appropriate expectations both for yourself and your international hosts.
7. Understand and be sensitive to the profound **inequities in global health** and how individuals can contribute to diminishing these disparities.

Competency 6: Systems-based Practice

Understand how to practice high-quality health care and advocate for patients within the context of the health care system.

1. Compare and contrast different **health care delivery settings in the developing world**, including hospitals, clinics and the community, and the roles of different health care workers as they apply to patients in developing countries, such as the physician, nurse, community health worker, traditional birth attendant, etc.
2. Identify the **major governmental and non-governmental organizations** active in international child health, and give examples of initiatives and programs that impact child health (WHO, UNICEF, Global Fund, GAVI, etc.). Understand how the policies and funding structures of these organizations as well as donor nations impact global child health.
3. Describe international goals and strategies for improving child and maternal health (such as the **Millennium Development Goals**), and how these have impacted policy, funding and development of newborn, child and maternal health programs worldwide.
4. Develop understanding and awareness of the **health care workforce crisis in the developing world**, the factors that contribute to this, and strategies to address this problem.
5. Identify different **health care systems and fee structures between and within countries**, including the **public and private sectors**, and understand the impact of these systems on access to patient care and quality of care.

6. Demonstrate sensitivity to the **costs of medical care** in countries with limited resources and how these costs impact choice of diagnostic studies and management plans for individual patients.
7. Contrast the advantages and disadvantages of different approaches to implementing **health care interventions in developing countries**, such as vertical or targeted programs vs. integrated; focused vs. comprehensive; facility-based vs. community. Describe the **WHO Integrated Management of Childhood Illness (IMCI)** program as an example.
8. **Advocate** for families, such as recent immigrants to a developed country, who need assistance to deal with system complexities, such as lack of insurance, multiple appointments, transportation, or language barrier.
9. Understand the pediatrician's role in **advocating for health policy** efforts that can reduce inequities and improve health of children in developing countries.

Source: Kittredge, D., Baldwin, C. D., Bar-on, M. E., Beach, P. S., Trimm, R. F. (Eds.). (2004). APA Educational Guidelines for Pediatric Residency. Ambulatory Pediatric Association Website. Available online: www.ambpeds.org/egweb. [Accessed 02/22/2007]. Project to develop this website was funded by the Josiah Macy, Jr. Foundation 2002-2005.

* The objectives were designed using curriculum building tools made available on the Ambulatory Pediatric Association website (www.ambpeds.org) and are based on ACGME competency domains. This website provides curricular material which can be downloaded and customized to each individual program. This document was created using the document "Pediatric Competencies in Brief: Customizable Pediatric Competencies in Brief" found in the Curriculum Building Tools section of the website (registration is required to access this page). The document, which presents the fundamentals of the ACGME competency domains, was then adapted to include competency-based curriculum objectives for international health education of pediatric residents. A more concise set of suggested curriculum objectives for international health are also published on this website under "Supplemental Learning Experiences". As of the time of this publication, the guidelines published here have not been endorsed or published by any professional organization other than the AAP Section on International Child Health.

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