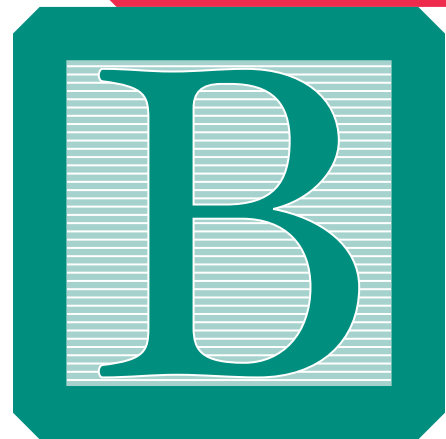


# Pediatric Adversity and Early Brain Development

*A toolkit for the integration of social determinants of health into curricula*



# ACKNOWLEDGMENTS



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**School of Nursing**

**THE GEORGE WASHINGTON UNIVERSITY**



**National League  
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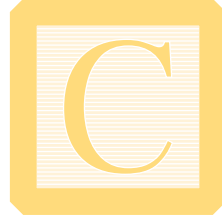
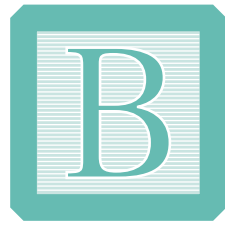
*This module describes local, state, and federal programs that decrease the rates of poverty and mitigate the effects of poverty on child health in the U.S.*

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*This module reviews early brain science and the physiologic consequences of adversity on child health, behavior, and development. It also describes the relationship between child poverty and lifelong health disparities.*

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*This module can assist nurses with gaining insight into advocacy strategies that can help them coordinate care and translate research into action.*



## Introduction

This toolkit offers a concise way for faculty in schools of nursing to explore the literature about pediatric adversity and consider ways to integrate the social determinants of health into existing curricula in meaningful ways. Childhood adversity is a construct in search of a definition. Despite the burgeoning interest and research attention devoted to childhood adversity, there is a surprising lack of consistency with regard to the definition and measurement of the construct (McLaughlin, 2016). Pediatric adversity is an experience that is likely to require significant adaptation by an average child and represents a deviation from the expected environment. (McLaughlin, 2016).

Each module in this toolkit offers prework in the form of readings and interactive opportunities. There are also linked presentations and PowerPoint slides that can be used in different areas within a nursing curriculum.

Early adverse childhood experiences (ACEs) and the early childhood environment significantly impact long-term health and well-being. This toolkit contains resources that that can be used to teach nursing students about the lasting impacts of social determinants of health in the early years of life. Substantial work has been done by many scientists, clinicians, and community activists to expand on this topic and this toolkit is intended to extend that work to nursing professionals. The [Building Community Resilience coalition](#) [PDF] has designed a pictorial entitled a Pair of ACEs Tree that illustrates the relationship between adversity within a family and adversity within a community.

Faculty are encouraged to consider a variety of places in their school's nursing curricula to add this important subject. There are the obvious places to weave it in – such as courses in pediatrics, growth and development, and community or public health – but consideration of a broader view is recommended. Epidemiology of Child Poverty could fit into research methods courses, and the landmark study on adverse childhood experiences (ACEs) could be used to help students understand evidence-based research. Introductory materials on social determinants of health can go into fundamentals of nursing courses. The content on the federal poverty limit and its relationship to public benefits should be enveloped into policy courses and how Child Health Insurance Programs (CHIP) and Supplemental Nutrition Assistance Programs (SNAP) help bring many families out of poverty. Finally, assessment of pediatric adversity and the social determinants of health fit in both health assessment and fundamental courses, as well as more advanced courses in community health and leadership.



# Module 1: Epidemiology of Child Poverty

The term *early childhood* has traditionally been defined by governmental organizations such as Healthy People, the World Health Organization (WHO), and the United Nations International Children's Emergency Fund (UNICEF) as the time period from birth to year eight. The state of the science has found that time period to be too broad. Currently, pediatric health care organizations define early childhood as the time between birth and age three.

This is an important distinction because neuroplasticity occurs rapidly and extensively during the first three years of life. Neurons form new connections at a rate of more than 1 million per second and comprise about 80 percent of all brain development during early childhood, which means that this time period is important for foundational brain structures and setting the stage for brain connectivity. This module offers guidance and supports the nurse's role in caring for those in early childhood amid the emerging science of early childhood adversity.

During early childhood, life experiences quite literally get "under the skin" and affect physical and mental health. The concepts of individual differences (each individual can have a unique response to the same experience) and vulnerability genes (genetic code passed on to a child that specifically affects physiological development) are important to keep in mind, as they significantly contribute to how experiences shape one's environment and development. If conditions are chronically adverse or stress becomes prolonged or excessive during early childhood, short- and long-term learning, behavior, and health outcomes are affected. The care and interventions provided during this sensitive period can have a profound impact on the lifelong health and wellness of an individual.

## *Poverty as a Social Determinant of Health*

Social determinants of health (SDH) are defined by the Centers for Disease Control and Prevention as "conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."

*This toolkit is designed so that faculty can use the material in their courses. The learning goals/objectives for this module can be adapted for specific courses.*

### **LEARNING GOALS**

- Describe the extent of the challenge of child and family poverty in the U.S.
- Describe the roles that geography, race and ethnicity, level of education and family composition play for children growing up in poverty.
- Define the federal poverty limit and its relationship to public benefits.
- Contrast the U.S. child poverty rate with rates in other developed nations over the past 25 years.
- Distinguish poverty rates among U.S. subpopulations; consider geography (rural, urban, suburban), race and ethnicity, age, immigrant status, family composition, and level of education.
- Describe poverty rates in your own local community, hospital or practice.

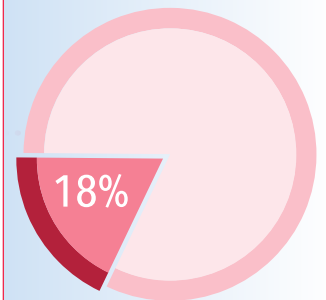


Poverty is defined by the U.S. government based on income and family size, and the threshold is adjusted annually based on inflation. Poverty exists in every community – urban, suburban, and rural – and children are the poorest members of our society. In 2016, approximately 13 percent of the U.S. population lived in poverty, including 18 percent of children. Although poverty rates declined between 2014 and 2016 across all demographics, disparities remain. Black, Hispanic, American Indian, and Alaska native children are three times more likely to live in poverty than white and Asian children. Among immigrants, naturalized citizens have the lowest poverty rates, followed by U.S.-born citizens; noncitizens are at highest risk of living in poverty.

Children born into poverty and persistently living in poor conditions are at risk for many health and developmental challenges throughout their lives. Children living in poverty are also more likely to be exposed to violence and suffer from injury and chronic illnesses. Moreover, the effects of persistent poverty can lead to toxic stress and can alter the way a young child’s brain develops, which can lead to lower educational attainment and higher rates of crime, teen pregnancy, and substance abuse.

Federal antipoverty programs aim not only to provide economic stability to individuals and families, but also to mitigate the long-term effects of poverty. A number of programs are specifically designed to support early childhood development, including those that provide access to health care through Medicaid and CHIP, early education (such as Head Start and Early Head Start), affordable housing, quality child care, and home visiting. Perhaps the most widely utilized programs are those that provide critical nutrition assistance, such as the Women, Infants, and Children Program (WIC); SNAP (formerly the “food stamps” program); school meals; and summer feeding programs. Without these resources, it is estimated that nearly one in three children would live in poverty instead of one in five.

### Child Poverty in the U.S. (2016)



There were more than 13 million children living in poverty in 2016

### Poverty has negative effects on:

- Birthweight
- Infant mortality
- Immunization rates
- Nutrition
- Language development
- Social development

# PREWORK

## Readings

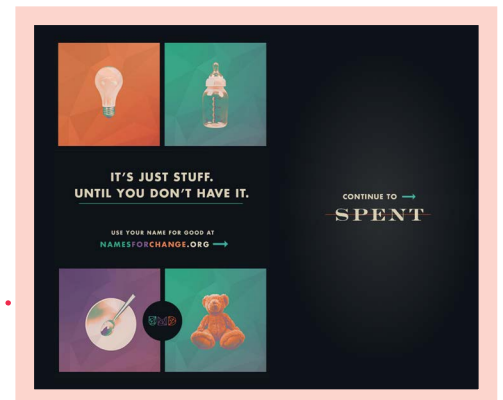
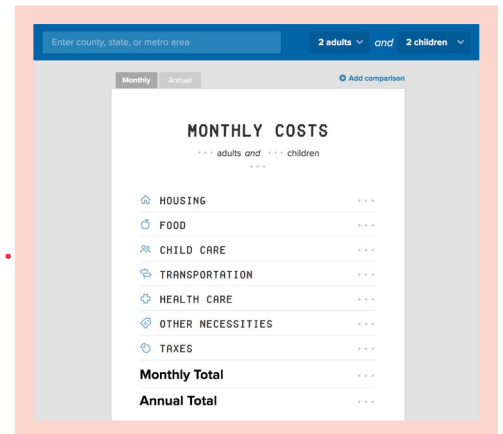
- [Child Poverty in the United States Today: Introduction and Executive Summary](#) [HTML]. Benard Dreyer, Paul J. Chung, Peter Szilagyi, Shale Wong
- [Measuring Access to Opportunity in the United States](#) [PDF]. Annie E. Casey Foundation, February 25, 2015
- [Poverty and Child Health in the United States](#) [PDF]. Council on Community Pediatrics. (2016). *Pediatrics*, 137(4), e20160339.
- [Addressing Social Determinants of Health at Well Child Care Visits: A Cluster RCT](#) [PDF]. Garg, A. Toy, S. Tripodis, Y. Silverstein, M., Freeman.E. *Pediatrics*, January 2015.

## Interactive

[EPI's Family Budget Calculator](#) [HTML]

Consider monthly costs. Try entering your own zip code, the zip code of a patient, or a zip code where you have lived in the past. See how the budget changes based on location and how many adults and children live in the home.

- Reflect on your economic situation and that of a person or family living in poverty.
- How do they earn their income?
- What are their expenses?
- How does income impact their ability to meet basic needs and provide for a family?
- Now play [Spent](#) [HTML]



## Additional Information

- [APA Child Poverty Curriculum: Epidemiology of Childhood Poverty](#) [PowerPoint]

# INTERACTIVE ASSIGNMENTS

## Assignment 1: Discussion regarding the [EPI Family Budget Calculator](#)

Discuss the cost of living in the areas chosen and then use [this income comparison tool](#) [HTML] to determine the percentage of people that actually earn that amount.

- What sacrifices do people have to make because they don't earn enough money? Where can they cut costs and what does that mean for their health?
- How difficult would it be to make ends meet on this budget? For one person? For a family of four? Use the [EPI's facilitator guide](#) [PDF] if you need guidance.
- What is the impact on a family at the Poverty Line when a child is sick and must be brought to the doctor, even for a mild illness?

## Assignment 2: Discussion questions (in person or on a discussion board)

Based on what you have learned from this module, what will you do differently in your care of patients related to:

- History taking?
- Management plans?
- Interpersonal communication?

## Assignment 3: Guided discussion

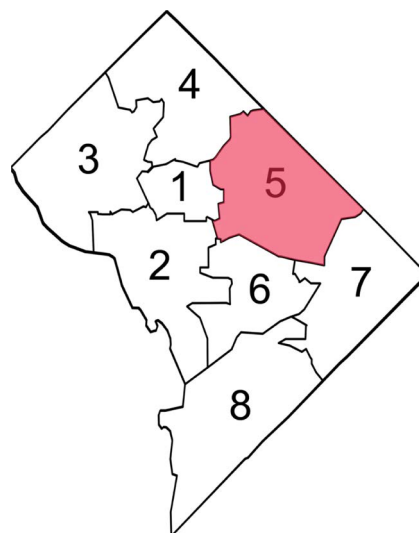
Share an example of a time when your preconceived notions about a family were proven untrue based on your interaction with the family. What did you learn from those interactions?

## Assignment 4: Family profile

Case study including Department of Human Services (DHS) benefits mock application (each state has different applications for DHS benefits):

- To further understand how poverty impacts patients and their families, click on a family identity and complete the DHS benefits application based on the family identity that you have chosen. The application can be found on the [DHS website](#) [HTML].

	Mother	Father
Name	Cheryl Lewis	Gerald Lewis
Date of birth	5/25/1983	6/17/1984
Race	Black	Black
Ethnicity	Non-Hispanic	Non-Hispanic
Number of children	2	
Annual income (combined)	\$49,000	
Home address	1673 Varnum Place NE Washington, DC 20017	
Gross monthly rent	\$1,350	
Weekly childcare costs	\$650	



From FY 2015–2017, more than 500 patients seen for a wellness exam at CHC-SZ lived in census tract 91.02, which is essentially the neighborhood of Brentwood, located in Ward 5 in Northeast D.C.

Mrs. Lewis is 35 years old with a high school diploma and a full-time job (40 hours per week). Mr. Lewis is 34 years old and works part-time (30 hours per week). The children, ages 1 and 5, are Medicaid recipients in full-time daycare. Mr. and Mrs. Lewis are interested in applying for Temporary Assistance for Needy Families (TANF) and Supplemental Nutrition Assistance Program, or SNAP (formerly known as Food Stamps).



# Module 2: The Role of Local, State, and Federal Policies on Childhood Adversity

## LEARNING GOALS

- Describe the local, state, and federal programs that decrease rates of poverty and mitigate the effects of poverty on child health in the U.S.
- Describe the role of nursing professionals in efforts to lessen the effects of adversity on a child's health.
- Develop the skills to practice patient-centered care when caring for families and children living in poverty.
- Reflect on the strengths and weaknesses you have witnessed in a clinical setting with regard to a medical team's approach to caring for children living in poverty.

## PREWORK

### Readings

- Define and describe:
  - [Earned Income Tax Credit \(EITC\)](#) [HTML]
  - [Supplemental Nutrition Assistance Program \(SNAP\)](#) [HTML]
  - [Medicaid and Children's Health Insurance Program \(CHIP\)](#) [PDF]
- [Poverty and Child Health in the United States](#) [HTML]. Council on Community Pediatrics
- Wherry, L., Kenney, G., Sommers, B. (2016). [The Role of Public Health Insurance in Reducing Child Poverty](#) [PDF]. *Academic Pediatrics*, 16(3), S98-S104.
- Marcin, J.P., Shaikh, U., Steinhorn, RH. (2016). [Addressing Health Disparities in Rural Communities Using Telehealth](#) [PDF]. *Pediatric Research*, 79, 169-176.
- Kitzman H, Olds DL, Cole R, Hanks C, Anson E, Sidora-Arcoleo K, Luckey DW, ... Holmberg J. [Enduring effects of prenatal and infancy home visiting by nurses on children: Age-12 follow-up of a randomized trial](#) [PDF]. *Archives of Pediatric & Adolescent Medicine*, 164(5), 412-418.
- Minkovitz, C., O'Neil, K., Duggan, A. (2016). [Home Visiting: A Service Strategy to Reduce Poverty and Mitigate Its Consequences](#) [HTML]. *Academic Pediatrics*, 16(3).
- Duncan, G., Magnuson, K., Murnane, R. (2016). [Reforming Preschools and Schools](#) [HTML]. *Academic Pediatrics*, 16(3), S121-S127.
- Sandel, M., Faugno, E., Mingo, A., Cannon, J., Byrd, J., Garcia, A.C. ... Jarrett, R. B. (2016). [Neighborhood-Level Interventions to Improve Childhood Opportunity and Lift Children Out of Poverty](#) [HTML]. *Academic Pediatrics*, 16(3), S128-S135.

# INTERACTIVE ASSIGNMENTS

[American Academy of Pediatrics – Advocacy and Policy](#) [HTML]

- Explore the programs available on this website.
- Pick one program and write down a strength and a weakness of the program.

[American Academy of Pediatrics – Poverty Policy and Pair Share](#) [PDF]

- Brainstorm policy or modifications to policy and programs already discussed in the lecture that could be used to troubleshoot problems or limitations to the program.
- Discuss the pros and cons and feasibility of the program brainstormed.

What make pediatricians, nurses, or other members of a health care team unique advocates? Allow an audience to come up with the following ideas and discuss each one with a partner.

- Access to patients
- Knowledge about child health
- Ability to bear witness, tell stories to decision-makers
- We possess a powerful, respected voice.

Discussion questions:

- What knowledge makes health care providers uniquely effective?
- What is it about your access to children that makes you as a health care provider a unique child advocate?
- Do you believe it is your responsibility to advocate for children based on these factors?

[More discussion questions and guided follow-up topics and questions](#) [PDF]

## Discussion Board Question

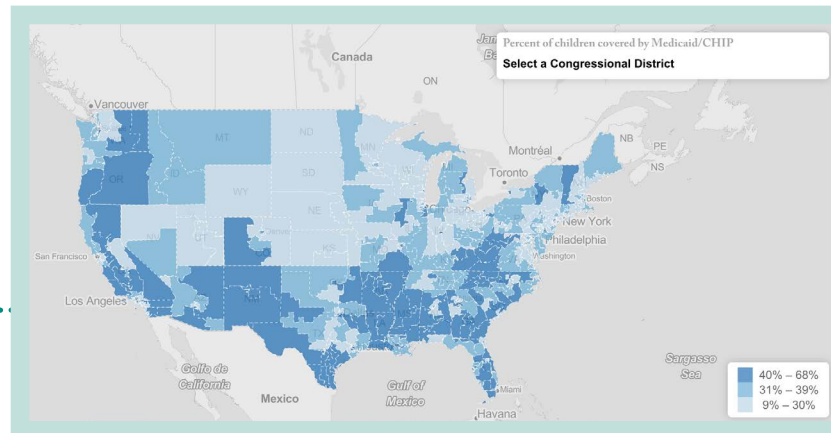
The percent of children covered by Medicaid varies widely across the United States. In some congressional districts, as few as 9 percent of children are covered by Medicaid, whereas in other areas that rate is as high as 68 percent of children.

(See [Medicaid coverage map](#) [HTML])

- Give thoughts about why there is so much variability.

You should also consider the following additions to the discussion board question:

- Name one new program or resource you learned about in this section.
- Why did you remember that one? What kind of impact does it already have? What is its potential impact on child poverty?
- Will having a better sense of these programs and resources change the way you approach patients and their families during a visit? Are you likely to ask about whether families are enrolled in these programs? Why or why not?



# Module 3: Early Brain and Childhood Development and ACEs

## LEARNING GOALS

- Recognize the physiologic consequences of adverse childhood experiences on the child health, behavior, and development.
- Describe the relationship between child poverty and lifelong health disparities.
- Understand the effects trauma can have on a child's development, behaviors, and functioning.
- Explain basic strategies and recommendations for providing nursing and medical care to children in poverty or significant adversity.
- Apply knowledge of the social determinants of health to find new strategies to promote lifelong health.

## PREWORK

### Videos

- American Academy of Pediatrics – [The Science of Early Brain Development](#) [HTML]
- Harvard University – [Experiences Build Brain Architecture](#) [HTML]
- Harvard University – [Serve and Return Interaction Shapes Brain Circuitry](#) [HTML]
- Unnatural Causes – [Health in America, Episode 1](#) [HTML]

### Reading

- Read the original ACE study:  
Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A.M., Edwards, V... Marks, J. (1998). Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. *American Journal of Preventive Medicine*, 14(4), 245-258. ([Abridged version](#) [HTML])
- Wade Jr., R., Becker, B.D., Bevans, B.S., Ford, D.C., Forrest, C.B. (2017). [Development and Evaluation of a Short Adverse Childhood Experiences Measure](#) [HTML]. *American Journal of Preventive Medicine*, 53(2) 163-172.
- The Guardian – [The neuroscience of inequality: Does poverty show up in children's brains?](#) [HTML]
- Robert Wood Johnson Foundation – [Adverse Childhood Experiences of Low-Income Urban Youth](#) [HTML]
- Tufts Medical Center – [The Survey of Well-Being of Young Children](#) [HTML]
- University of Maryland Children's Hospital – [SEEK: Safe Environment for Every Kid](#) [HTML]
- Center for Youth Wellness – [ACE-Questionnaire](#) [PDF]
- Community Resilience Initiative – [Resilience Screen](#) [HTML]
- Wade Jr., R., Shea, J. A., Rubin, D., Wood, J. (2014). [Adverse Childhood Experiences of Low-Income Urban Youth](#) [PDF]. *Pediatrics*, 134(1), E13-E20.

## Presentations

- [Overview of Adverse Childhood Experiences Study \(ACEs\)](#) [Vimeo]
- [Socio-Economic Disparities in Early Neurocognitive Development](#) with Natalie Brito, PhD [Video]
- [Lifelong Learning Begins In Utero: Tying it all together lecture](#) by Michelle Stephens [Vimeo]
- American Academy of Pediatrics – [Toxic Stress: Why Environment Matters](#) [PowerPoint]
- Harvard University – [InBrief: The Impact of Early Adversity on Children’s Development](#) [HTML]  
This video looks at research on the biology of stress and how major adversity can weaken the developing brain structure.
- Alberta Family Wellness Initiative – [Science in Seconds: Epigenetics](#) [HTML]  
This video clip looks at the complex interaction between experience and genetic predisposition and the creation of a child’s brain foundations.
- TED Talk – [Nadine Burke Harris: How Childhood Trauma Affects Health Across A Lifetime](#) [HTML]
- APA Poverty Task Force – [Poverty Curriculum](#) [PDF]  
Go through the cases and stop during each reflection to debrief and discuss.

## INTERACTIVE ASSIGNMENTS

Review the following presentations and publications as background for the assignment:

- American Academy of Pediatrics – [Case study: Toxic Stress](#) [PowerPoint]
- American Academy of Pediatrics – [Case study: Adverse Childhood Experiences](#) [PowerPoint]
- National Public Radio – [Take the ACE Quiz - And Learn What It Does and Doesn’t Mean](#) [HTML]

Take the ACE survey and determine your ACE score. Now that you’ve got your ACE score, what does it mean? As you have read this week, the origins of the ACEs study – the largest, most important public health study you never heard of – began in an obesity clinic. The study uncovered a stunning link between childhood trauma and the chronic diseases people develop as adults, as well as social and emotional problems. This includes heart disease, lung cancer, diabetes and many autoimmune diseases, as well as depression, violence, being a victim of violence, and suicide. The first research results were published in 1998, followed by 57 other publications through 2011. They showed that:

- Childhood trauma was very common, even in employed white, middle-class, college-educated people with great health insurance;
- There was a direct link between childhood trauma and adult onset of chronic disease, as well as depression, suicide, being violent, and being a victim of violence;
- More types of trauma increased the risk of health, social and emotional problems; and
- People usually experience more than one type of trauma – rarely is it only sex abuse or only verbal abuse.

Ten types of childhood trauma were measured in the ACEs study. Five are personal: physical abuse, verbal abuse, sexual abuse, physical neglect, and emotional neglect. Five are related to other family members: a parent who is an alcoholic, a mother who is a victim of domestic violence, a family member in jail, a family member diagnosed with a mental illness, and the disappearance of a parent through divorce, death or abandonment. Each type of trauma counts as one.

## *Assignment 1: Reflective paper*

Write a two-page (double-spaced, 250 words) reflection on your own ACE score.

Your responses to the questions on this survey are a reflection of some of the experiences you had as a child but they do not define who you are. This survey was developed because of the widespread incidence of trauma across communities, cultures, socioeconomic boundaries, and genders; you are not alone. Consider the following when writing your paper:

- How have your own ACEs impacted your life and your health?
- How do you feel about yourself as a pediatric provider after learning about ACEs?
- How will you incorporate this into your pediatric care? Consider how you recognize current manifestations of ACEs in patients and families. How does it look “walking through your office door?”



# Module 4: Nursing's Role in Pediatric Adversity – Patient Care and Advocacy

## PREWORK

### Readings for Faculty

- Thornton, M., Persaud, S. (2018, September 30). Preparing Today's Nurses: Social Determinants of Health and Nursing Education, *OJIN: The Online Journal of Issues in Nursing*, 23(3), Manuscript 5.

### Readings for Learners

- DeMarco, R., Adams Tufts, K. (2014). *The mechanics of writing a policy brief*. American Academy of Nursing on Policy.
- Izumi, B., Schulz, A., Israel, B., Reyes, A.,...Sand, S. (2010). The One-Pager: A Practical Policy Advocacy Tool for Translating Community-Based Participatory Research Into Action, *Progress in Community Health Partnerships*, 4(2), 141-147.
- Phillips, R. (2003). The ABCs of Lobbying. *Viewpoint*, 25(6), 6
- Francis, L., DePriest, K., Wilson, M., Gross, D. (2018, September 30). Child Poverty, Toxic Stress, and Social Determinants of Health: Screening and Care Coordination, *OJIN: The Online Journal of Issues in Nursing*, 23(3), Manuscript 2.
- Kitzman, H., Olds, D.L., Cole, R., Hanks, C., Anson, E., Sidora-Arcoleo, K.... Holmberg, J. (2010). [Enduring effects of prenatal and infancy home visiting by nurses on children: Age-12 follow-up of a randomized trial](#) [PDF]. *Archives of Pediatric & Adolescent Medicine*, 164(5), 412-418.
- Minkovitz, C., O'Neil, K., Duggan, A. (2016). [Home Visiting: A Service Strategy to Reduce Poverty and Mitigate Its Consequences](#) [HTML]. *Academic Pediatrics*, 16(3).
- Duncan, G., Magnuson, K., Murnane, R. (2016). [Reforming Preschools and Schools](#) [HTML]. *Academic Pediatrics*, 16(3), S121-S127.
- Sandel, M., Faugno, E., Mingo, A., Cannon, J.,...Boynton Jarrett, R. (2016). [Neighborhood-Level Interventions to Improve Childhood Opportunity and Lift Children Out of Poverty](#) [HTML]. *Academic Pediatrics*, 16(3), S128-S135.

### Blogs

- The Relentless School Nurse – [Pockets Filled With Chicken & Other Social Determinants of Health](#) [HTML]
- The Relentless School Nurse – [Pediatricians + School Nurses = Powerful Partners](#) [HTML]

## LEARNING GOALS

- Gain insight into advocacy strategies that can help nurses in care coordination and translating research into action.
- Examine opportunities to mediate the effects of childhood poverty in our patients and communities (specifically, Head Start and the Maternal, Infant, and Early Childhood Home Visiting Program)
- Identify available interventions that support language development for children living in poverty.



# PRESENTATIONS

One of the strongest predictors of a child’s academic success is not socioeconomic status, level of parental education, income, or ethnicity, but rather the quality and quantity of words spoken to the baby in the first three years of life. The more words babies hear by age three, the more likely they are to read on grade level by the end of third grade. Third graders who cannot read at grade level are four to six times more likely to drop out of school before high school graduation, which has lifelong negative health, academic, and economic implications. The science is clear – early language exposure sets the foundation for success in school and life.

The importance of early exposure to language is one pivotal way that nurses can coach parents and caregivers on language nutrition in the earliest stages of a child’s development. “Language nutrition” refers to rich language interactions between caregivers and infants and is critical for a child’s socioemotional and vocabulary development.

There are a few programs that nurses can use to assist parents in engaging with their baby. [Talk With Me Baby](#) [HTML] is designed specifically to increase provider and caregiver capacity to deliver language nutrition at the population level.

The [TMW Center for Early Learning + Public Health](#) [HTML] at the University of Chicago develops and scales interventions that centers parents and caregivers in their children’s education.

[Talking Is Teaching: Talk, Read, Sing](#) [HTML] is a public awareness and action campaign that helps parents recognize their power to boost their children’s early brain and vocabulary development through simple, everyday actions. Talking Is Teaching empowers parents and caregivers with fun and easy ways to improve their babies’ learning.

**Note for Educator:** Most parents may already talk with their baby, however parents may not be aware of why it is so important to talk with their baby, especially during the first three years, and how talking stimulates brain development and provides the critical foundation for literacy and learning.

### Parents are a baby’s first and best teachers

All parents want the best for their baby. And we know healthy food helps grow a healthy baby. But to grow a healthy brain, babies need more. Babies need lots of loving words.

**TALK** — Talk with your baby during everyday activities such as bathtime, mealtime, and changing. At mealtime, say the names of foods out loud as your baby eats.

**READ** — Read with your baby every day, and point out images and colors, make facial expressions and ask questions. Identify food at the grocery store out loud, and read packages and signs to your baby.

**SING** — Sing your favorite songs and lullabies as a way to engage with your baby, or help soothe them when they are upset. While you prepare dinner, make up a song about what you are cooking.

**PLAY** — Pay attention to what interests your baby and help them interact with it every chance you get. Show your baby different colored fruits and vegetables and let them interact with what interests them.

TALK WITH ME BABY

### Healthcare Providers’ Guide to Traumatic Stress in Ill or Injured Children

...AFTER THE ABCs, CONSIDER THE DEFs

<b>D</b>	<b>DISTRESS</b>	<ul style="list-style-type: none"> <li>Assess and manage pain.</li> <li>Ask about fears and worries.</li> <li>Consider grief and loss.</li> </ul>
<b>E</b>	<b>EMOTIONAL SUPPORT</b>	<ul style="list-style-type: none"> <li>Who and what does the patient need now?</li> <li>Barriers to mobilizing existing supports?</li> </ul>
<b>F</b>	<b>FAMILY</b>	<ul style="list-style-type: none"> <li>Assess parents’ or siblings’ and others’ distress.</li> <li>Gauge family stressors and resources.</li> <li>Address other needs (beyond medical).</li> </ul>

The Center for Pediatric Traumatic Stress (CPTS)

*Why D-E-F?* (Courtesy of Center for Pediatric Traumatic Stress at CHOP and Nemours)

The Center for Pediatric Traumatic Stress at the Children’s Hospital of Philadelphia and Nemours / A. I. du Pont Hospital for Children has put together a [toolbox of the basics of trauma informed care](#) [HTML] that has useful resources including some of the examples below. A-B-C orients us to the crucial first steps to save a life (Airway, Breathing, Circulation). After attending to the basics of physical health (the A-B-Cs), use D-E-F as a reminder to address Distress, Emotional support, and Family needs as key elements of trauma-informed pediatric care.

and Family needs as key elements of trauma-informed pediatric care.

The D-E-F protocol is a practical tool to guide trauma-informed pediatric care. The D-E-F framework helps health care professionals identify what they can do, within their own scope of practice, to address and prevent traumatic stress responses.

## Distress case example: Meet Anthony

After a recent illness, 8-year-old Anthony's parents noticed an increase in his shortness of breath, coughing and wheezing. His symptoms did not seem to relieve completely with nebulized albuterol treatments.

A few days ago, when his mother noticed him having trouble breathing, she brought Anthony to the Emergency Department at your hospital. He was admitted for IV steroids and O<sub>2</sub> therapy.

Over the first day of his admission, you notice that Anthony is often whiny and fearful when the health care team interacts with him to provide care. Now, while you are in the room, Anthony's parents remind him that he really needs to cooperate with the nurse so that he can get better. Anthony reacts with anger to this, saying, "You can't tell me what to do!" What would you do next?

To address distress, you might:

- Assess Anthony's current pain level to be sure that this is not a reason for his irritability.
- Strike up a conversation with Anthony and his parents about how it's been going since he got to the hospital. Ask, "Anything especially worrying you?"

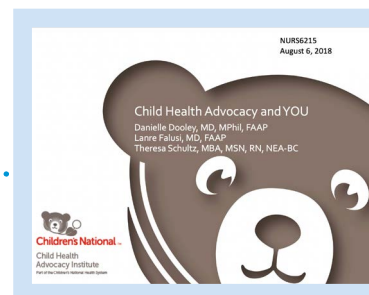
This is a great opportunity to assess Anthony's distress and help both you and his parents learn about anything that's worrying him. There will often be multiple opportunities in the course of your regular patient care interactions when you can be alert to a patient's concerns and follow up with a simple question or two.

### More case examples

- [Emotional support](#) [HTML]
- [Family needs](#) [HTML]

### More Presentations

- [Child Health Advocacy and You](#) [PowerPoint]
- [Nursing Advocacy video](#) [Vimeo]
- [Nursing Advocacy lecture](#), by Danielle Dooley, MD; and Theresa Schultz, MBA, MSN, RN, NEA-BC [Video] (Skip to 1:15 minutes; ends at 34:50)
- [Trauma-informed care webinar](#) [HTML] conducted by [Meghan Marsac, PhD](#) [HTML] Intended for pediatric health care providers, the aim of this webinar is to educate viewers about how previous traumas can affect how children, families, and providers respond to treatment and outreach in clinical settings. Dr. Marsac offers examples of trauma-informed actions and suggests further training to help build skills to put this into practice.
- [Nurse Family Partnership webinar](#) [Video] Join Sesame Street and Sherika Johnson, from Nurse Family Partnership, in this provider interview. Sherika shares stories from the life of a home visiting nurse, along with strategies that all providers can use to help families – especially first-time parents – grow smarter, stronger, and kinder. Check out an [overview](#) [HTML] and a [brochure](#) [PDF] from the Nurse Family Partnership.
- Redstone Global Center for Prevention and Wellness, George Washington University Milken Institute School of Public Health – [How to Use the "Pair of ACEs" Tree to Build Community Resilience](#) [Video]
- Health Care Toolbox – [Trauma-informed care](#) [HTML] Free online continuing education for nurses with a growing library of courses and resources.

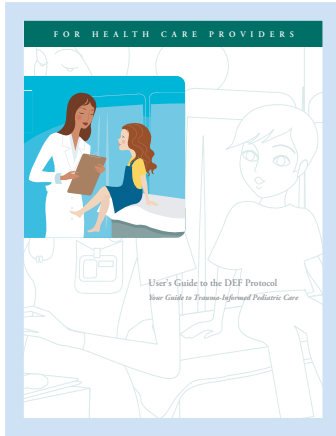




# INTERACTIVE

## Assignment 1: Add D-E-F to your care plan

Use the tools in the [Healthcare Toolbox: Trauma Informed Care](#) [HTML] to add your assessment of Distress, Emotional Support, and Family to your care plan. To implement trauma-informed care with the D-E-F Protocol in your location, download these tools:



D-E-F Users Guide [PDF]

The image shows the cover of a PDF form titled "D-E-F Nursing Assessment Form". It is divided into sections for "D: Distress", "E: Emotional Support", and "F: Family", each with a set of questions and checkboxes. At the bottom, there is a "Plan" section with a checklist of interventions.

D-E-F Nursing Assessment Form [PDF]

The image shows three overlapping pocket cards. The top card is titled "How to Assess: Distress" and "TRAUMATIC STRESS IN ILL OR INJURED CHILDREN". The middle card is titled "How to Assess: Emotional Support" and "TRAUMATIC STRESS IN ILL OR INJURED CHILDREN". The bottom card is titled "How to Assess: Family" and "TRAUMATIC STRESS IN ILL OR INJURED CHILDREN". Each card contains specific assessment questions and intervention recommendations.

D-E-F Pocket Cards with quick screening and intervention recommendations [PDF]

## Assignment 2: Policy paper "one-pager"

In order to have an impact on policy, it is important that researchers are able to communicate about their work. Policymakers often rely on "one-pagers" to help them learn about a topic quickly and make decisions. A strong one-pager provides background on an issue, includes facts and analyses, and may propose a solution or make a policy recommendation. This short document presents the findings and recommendations to a nonspecialized audience, is a medium for exploring an issue and distilling lessons learned from the research, and can be a vehicle for providing policy advice.

### Directions

Create a one-pager on a topic that is relevant to the course content we have discussed (e.g., you could choose housing and its relationship to asthma in children from low-income families). This should be a standalone document focused on a single topic.

### General Outline of a One-Pager:

#### Introduction/Background

Write a brief overview of the issue to provide context: state the problem you are addressing, its impacts on the state, region, or nation, and the objective you hope to achieve. It is important to identify your key point.

What problem will your brief address? What is the aim of the policy brief? Write one or two sentences from which the rest of the brief will follow.

Who is the audience? What do you know about them (e.g., technical knowledge, political or organizational culture or constraints, exposure to the issue, potential openness to the message)? Why is the problem important to them? What is the best hook for the audience?

## Facts, Facts, Facts

Use evidence from your own research and other research studies, reputable surveys, or other sources to support your perspectives (even policy experiences in other states).

What data are most important to include for your audience? What other policy or issue briefs already exist? How will your brief differ (e.g., different information, perspective, aim, or audience)?

## Consider Using Visuals

Charts, graphs, boxes with information, or a simple picture can break up the one-pager and convey important information in an easy-to-read and understandable format.

How will you present the data so it best conveys its message (e.g., in text, bar or line graph)?

## Conclusion

End with a summary statement and perhaps a recommendation, particularly about how this might have benefits for patients, communities, the region, state, or nation. What recommendations will you make?

# ADDITIONAL RESOURCES

## Assessments, screening, and talking to families about adversity

How can I talk to my patients and families about ACEs and toxic stress? Organizations such as [The Center for Youth Wellness \(CYW\)](#) [HTML] screen all of their patients for ACEs. CYW has developed and made available an ACE questionnaire designed help other providers screen for trauma.

The American Association of Pediatrics (AAP) developed [The Trauma Toolbox for Primary Care](#) [HTML], a six-part series designed to educate pediatricians about ACEs and provide tools to help providers talk to their patients about them.

As part of this toolkit, the AAP developed a four-step process to help identify children who have experienced or are affected by trauma. It is framed by the following questions:

- Why are we asking about ACEs? Why is this important?
- What are we looking for?
- How do we find it?
- What do we do once we have found it? What supports are available for patients and how do you refer patients to appropriate services?

**Immediate Postpartum Contraception & Medicaid Coverage: Health Benefits, Cost Savings and Data-Driven Decision-Making**

**Background**

1. Postpartum women are at high risk for unintended, rapid repeat pregnancy, which can be harmful to both women and babies. Low income women are at particularly high risk for unintended rapid repeat pregnancy
2. Long-acting, reversible contraception (LARC; e.g. intrauterine devices and implants) are underutilized by postpartum women, even though they are safe, highly effective, and cost-effective
3. Immediate postpartum contraception refers to intrauterine devices and implants that are inserted in the same hospitalization as a delivery

*Existing evidence allows for data-driven decision-making about payment for immediate postpartum LARC*

**Immediate Postpartum LARC Improves Health Outcomes for Mothers and Babies**

1. Two immediate postpartum LARC options exist: intrauterine devices (IUDs) and the contraceptive implant
2. LARC is highly effective at preventing unplanned pregnancy (failure rate <1%)
3. LARC can be inserted safely immediately following a vaginal or a cesarean delivery
4. LARC methods are safe for postpartum women (don't impact breastfeeding or postpartum mood)

**Immediate Postpartum LARC Saves Money**

1. Immediate postpartum LARC reimbursement is estimated to save up to \$2.3 million over two years per 1000 Medicaid-eligible women
2. The math:

Item	Cost
Cost of LARC device	\$600-800
Cost of publicly-funded birth after unplanned pregnancy	~\$12,000

**Immediate Postpartum LARC is a Missed Opportunity for Medicaid**

1. Less than 5% of postpartum Medicaid recipients initiate LARC
2. 40-60% of Medicaid recipients who request postpartum LARC never receive it
  - a. 35-55% never return for outpatient LARC insertion
  - b. 50% resume intercourse prior to this visit
  - c. Many lose Medicaid coverage at 60 days post-delivery, but regain coverage with their next pregnancy
3. In recognition of significant health benefits and cost-savings, 19 Medicaid agencies have begun providing specific payment for immediate postpartum LARC since 2012. At least another 8 states are considering such coverage

(For more info, see: Moniz MH, Dalton VK, Davis MM, Forman J, Iott B, Landgraf J, Chang T. Characterization of Medicaid Policy for Immediate Postpartum Contraception. Contraception. 2015).

Michelle H. Moniz, MD MSc  
Assistant Professor of Obstetrics and Gynecology  
University of Michigan

[Sample one-pager](#) [PDF] courtesy of Michelle Moniz, MD, MSc

## *Specific ways to talk to different groups about ACEs*

### **Group Sample Scripts for Children and Families, from the Medical Home Approach to Identifying and Responding to Exposure to Trauma**

- “Has your home life changed in any significant way (e.g., moving, new people in the home, people leaving the home)?”
- “Has anything bad, sad, or scary happened to your child recently?” (or “to you” if it is an older child)
- “You have told me that your child is having difficulty with aggression, attention, and sleep. Just as fever is an indication the body is dealing with an infection, these behaviors, when present, can indicate the brain and body are responding to a stress or threat. Do you have any concerns that your child is being exposed to stress or something that they would find scary?”

### **Group Sample Scripts for Colleagues, from ACEs Elevator Pitches**

“As you probably know, if bad things happen to you to as a child, it can impact your health for the rest of your life. Research shows that kids who experience physical abuse or live with an alcoholic parent are more likely to have cancer as an adult. They are more likely to attempt suicide. And they are more likely to drop out of school or end up in prison. The good news is that there are doctors, teachers, social workers, judges, parents and others who use this research (known as the Adverse Childhood Experiences Study) to create new tools to protect kids and families early, and give anyone who suffers the chance to heal.”

### **Individual ACEs Screening and Assessment**

- Centers for Disease Control – [ACEs Questionnaire](#) [HTML]  
A tool to calculate your own ACE score
- World Health Organization – [ACEs International Questionnaire](#) [HTML]
- Centers for Disease Control – [Behavioral Risk Factor Surveillance System 2014](#) [HTML]
- National Child Traumatic Stress Network – [Standardized measures to assess complex trauma](#) [HTML]

### **More resources**

#### [ACEs Connection](#) [HTML]

“ACEs Connection is a social network that supports communities to accelerate the global ACEs science movement, recognizes the impact of adverse childhood experiences in shaping adult behavior and health, and promotes trauma-informed and resilience-building practices and policies in all communities and institutions – from schools to prisons to hospitals and churches – to help heal and develop resilience instead of traumatizing already traumatized people.”

#### [The Child Trauma Academy](#) [HTML]

“We are a community of practice working to improve the lives of high-risk children through direct service, research and education. We recognize the crucial importance of childhood experience in shaping the health of the individual, and ultimately, society. By creating biologically-informed child and family respectful practice, programs and policy, CTA seeks to help maltreated and traumatized children.”

“The materials represented in this [online library by the CTA](#) [HTML] are intended for educational purposes. Authors have provided these materials to help promote the health

and welfare of children. If you are interested in reproducing more than three copies of any single article or intend to reproduce an article in a newsletter or like format, please send your request to us via email. Requests are considered individually and only granted for nonprofit educational use, as long as copyright and attribution information is retained. Permission is granted to those persons interested in reproducing fewer than three copies per article, provided that reproduction is for nonprofit educational use and that copyright and attribution information is retained.”

### [Child Trends](#) [HTML]

“Child Trends has been a leading institution in the effort to improve the lives and prospects of all children and youth through rigorous research. Our work has helped shape the public policies that affect children and families, strengthened a wide array of social services, and increased public awareness of child and youth issues.”

### [The National Center for Children in Poverty](#) [HTML]

“The NCCP conducts research and translates the findings into actionable recommendations that advocates and policymakers use to improve the lives and futures of low-income children and their families. We delve into issues that contribute to child poverty and make sure our ideas reach those in a position to make meaningful change that reduces the number of families experiencing hardship.”

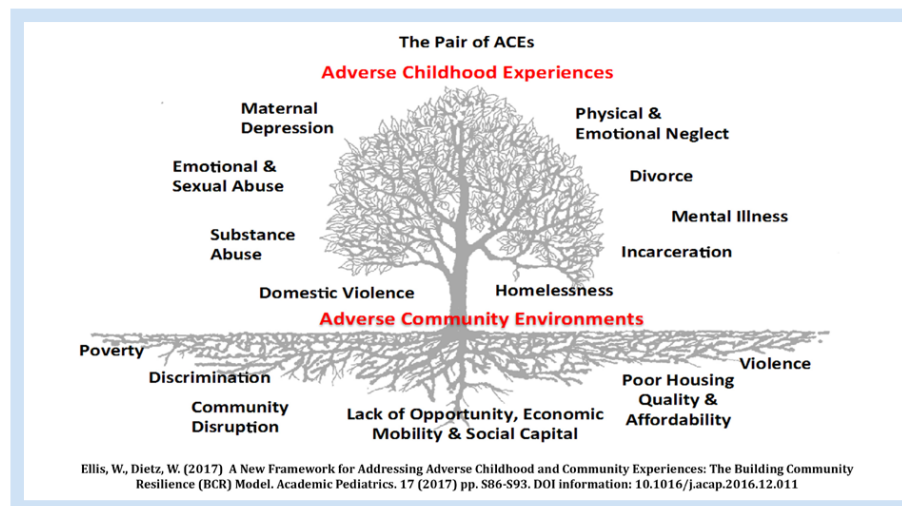
[The Annie E. Casey Foundation](#) [HTML] is devoted to developing a brighter future for millions of children at risk of poor educational, economic, social, and health outcomes.

The mission of the [Center on the Developing Child](#) [HTML] is to drive science-based innovation that achieves breakthrough outcomes for children facing adversity.

The [Building Community Resilience \(BCR\) collaborative](#) [HTML] at the Redstone Center seeks to improve the health of children, families, and communities by fostering engagement between grassroots community services and public and private systems to develop a protective buffer against Adverse

Childhood Experiences occurring in Adverse Community Environments – the “Pair of ACEs.” Connecting community organizations (such as through a church health ministry or trusted food pantry) with larger systems (including those in health care, education, business, law enforcement) can begin to build a durable network to improve community well-being.

[Sesame Workshop](#) [HTML], the non-profit educational organization behind Sesame Street, is the first ever comprehensive initiative designed to help children cope with traumatic experiences. The initiative is a major new addition to Sesame Street in Communities, a program to help community service providers, parents, and caregivers give children, especially the most vulnerable, a strong and healthy start.



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