



NC Department of Health and Human Services

The Opportunity for Whole Person Health

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Chief Medical Officer

All North Carolinians should have the opportunity for health

The opportunity for health begins in our families and communities

The opportunity for health begins where we live, learn, work, pray, and play

Health then gives the opportunity for learning, work, well being, and contributing back to a community

Health is an economic driver

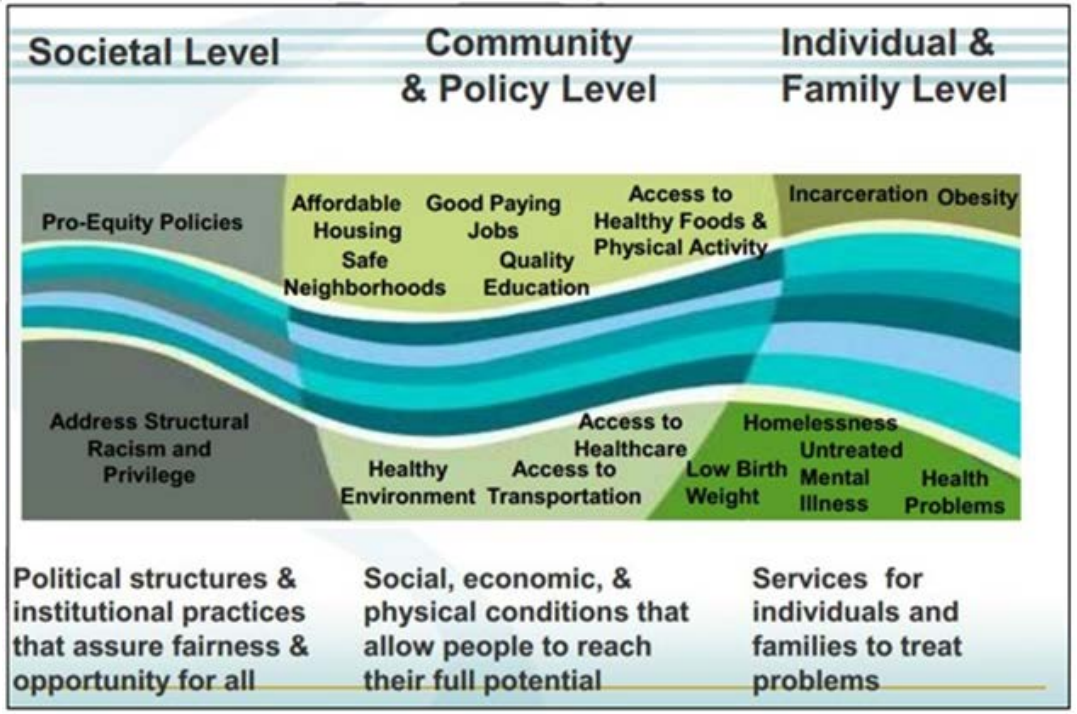
The Opportunity for Health

- Access to high-quality integrated care is critical to a person's health, but….
- Up to 80% of a person's health is determined through social and environmental factors and the behaviors that are influenced by them
- The opportunity for health (and health care cost savings and economic growth) lies in how we define, deliver, partner, and invest in health innovatively and across sectors

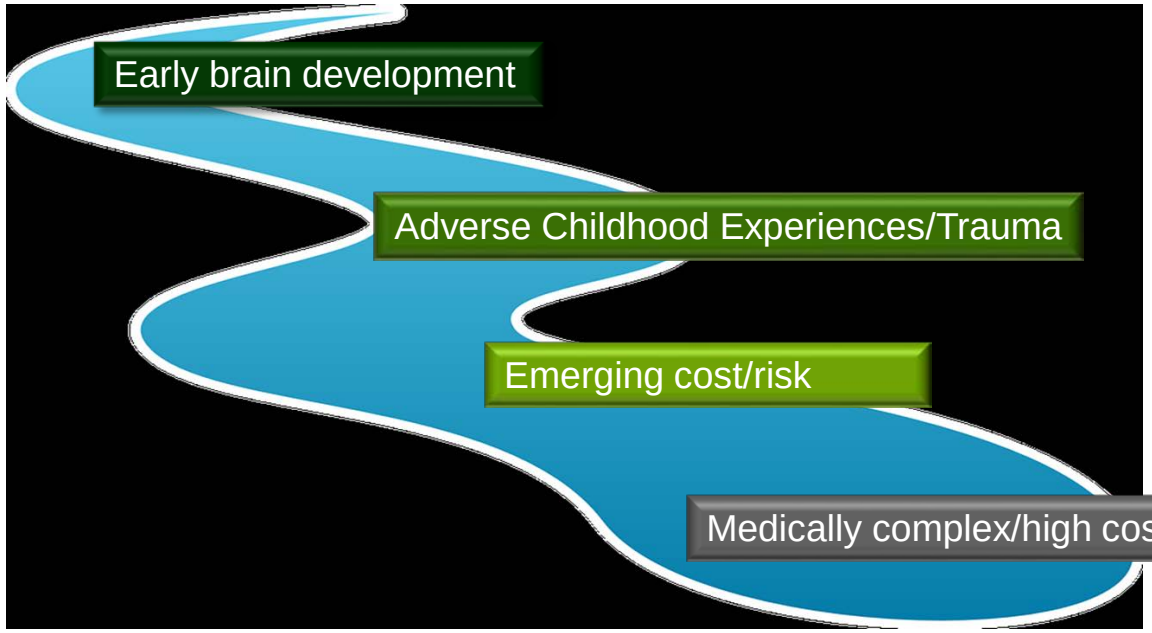
Holistic Approach to Health

Horizontal View

- Ecologic Perspective
- Multi-Sector approach
- Addressing underlying drivers of health



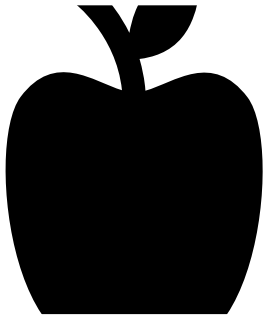
http://www.dph.illinois.gov/topics-services/life-stages-populations/infant-mortality/toolkit/understanding-sdoh



Vertical View

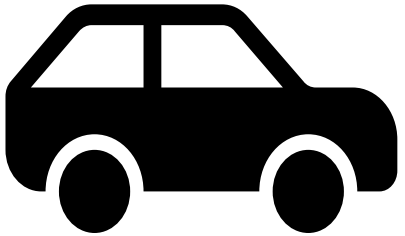
- Life span perspective
- 2-generational approaches
- Prevention/early intervention

Broader Lens of Health



Hunger

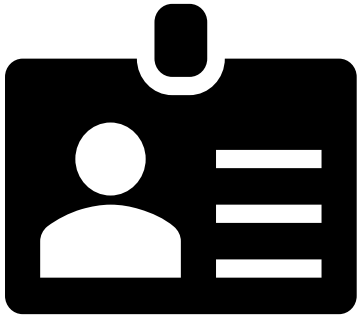
Housing Stability

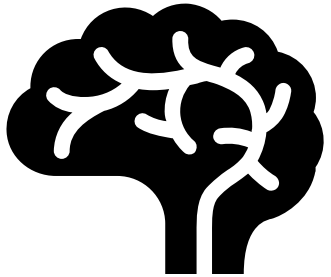


Transportation

Interpersonal Violence

Employment



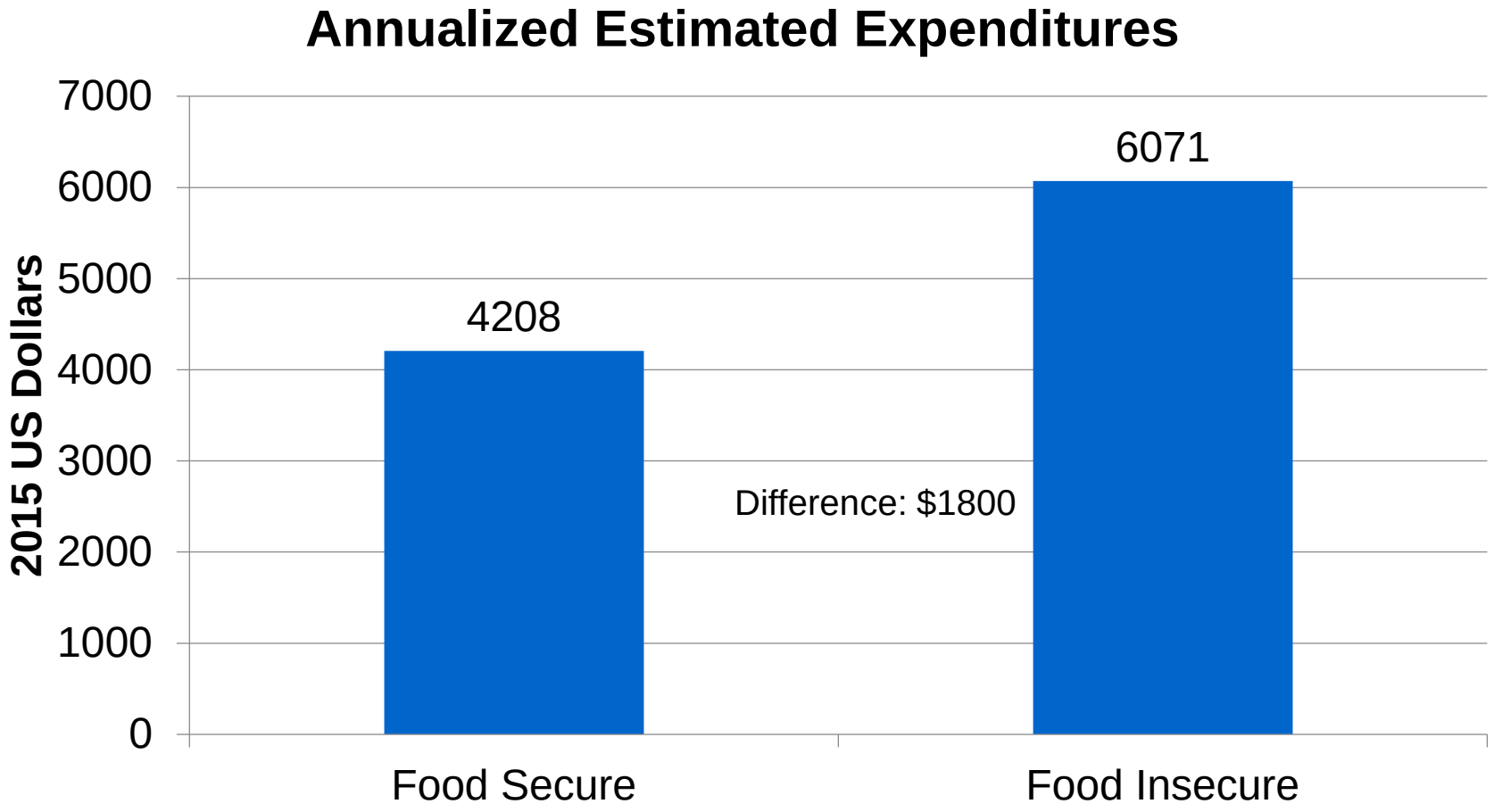


Early Brain Development

Hunger

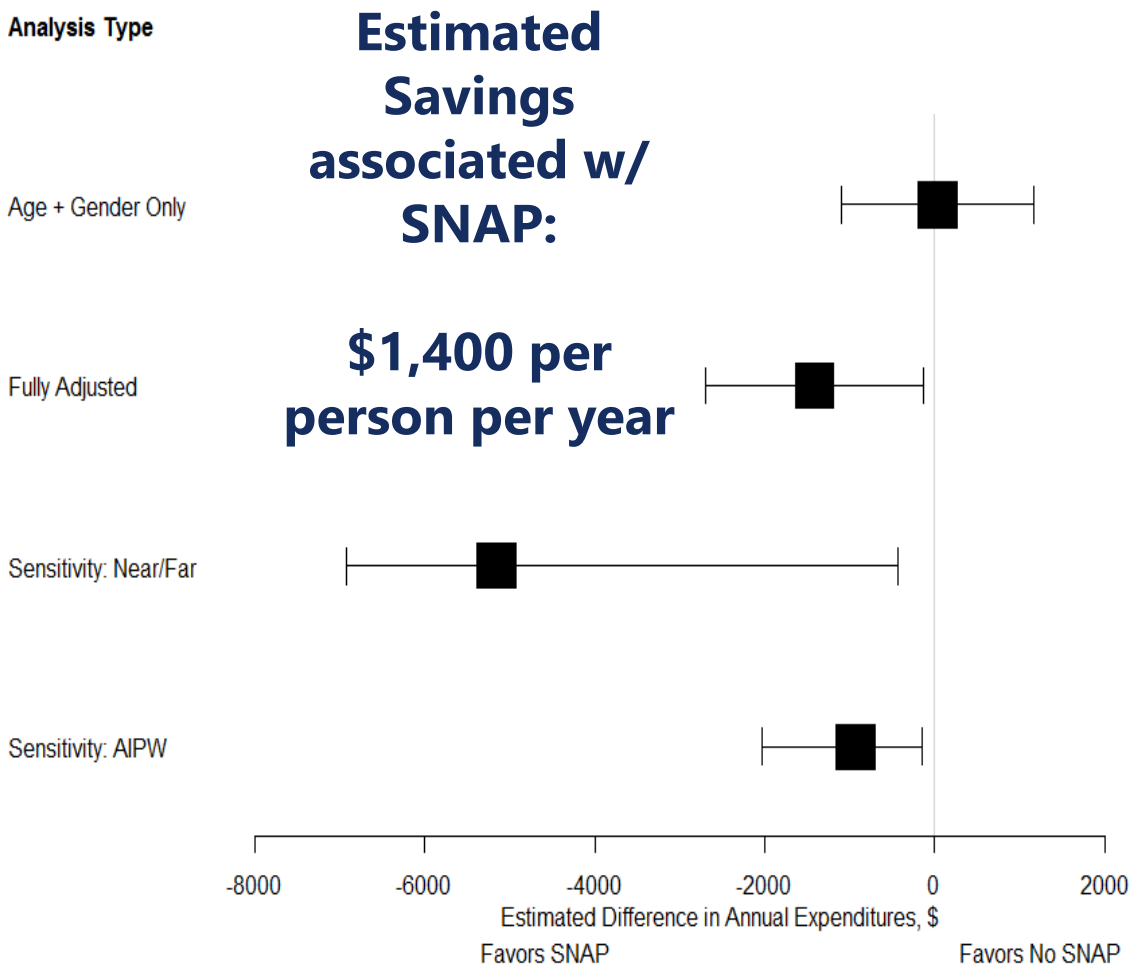
- NC -5th highest for overall food insecurity rate in the United States (1 in 5)
  - 2nd highest among children under 5 years old (1 in 4).
- Decreased overall health and increased hospitalizations
- Iron deficient, lower bone density, obesity
- Developmental delays, cognitive impairment, impaired school function, reduced academic achievement, dysregulated behavior, emotional distress, suicidal ideation.
- Effects persist beyond early life into adulthood – increased adult diabetes, hyperlipidemia, cardiovascular disease, depression, anxiety.

Healthcare Costs Associated w/ Food Insecurity



NHIS/MEPS data adjusted for: age, age squared, gender, race/ethnicity, education, income, rural residence, and insurance. Berkowitz, Basu, and Seligman. Health Services Research: *2017.*

SNAP Participation Associated w/ Lower Heath Care Costs



Connecting Seniors with SNAP:

- Reduces the odds of nursing home admission by 23%
- Reduces the odds of hospital admission by 14%
- Estimated healthcare savings of $2,120 per senior SNAP enrollee per year
- $6,300 over 3-year recertification period

Berkowitz, Seligman, Rigdon, Meigs, and Basu. *JAMA Internal Medicine 2017.*

Housing Instability

Burden in NC

- More than 1.2 million North Carolinians cannot find affordable housing
- 1 in 28 of NC children under age 6 is homeless
- Housing instability liked to other health factors (e.g. family violence, hunger, transportation instability)

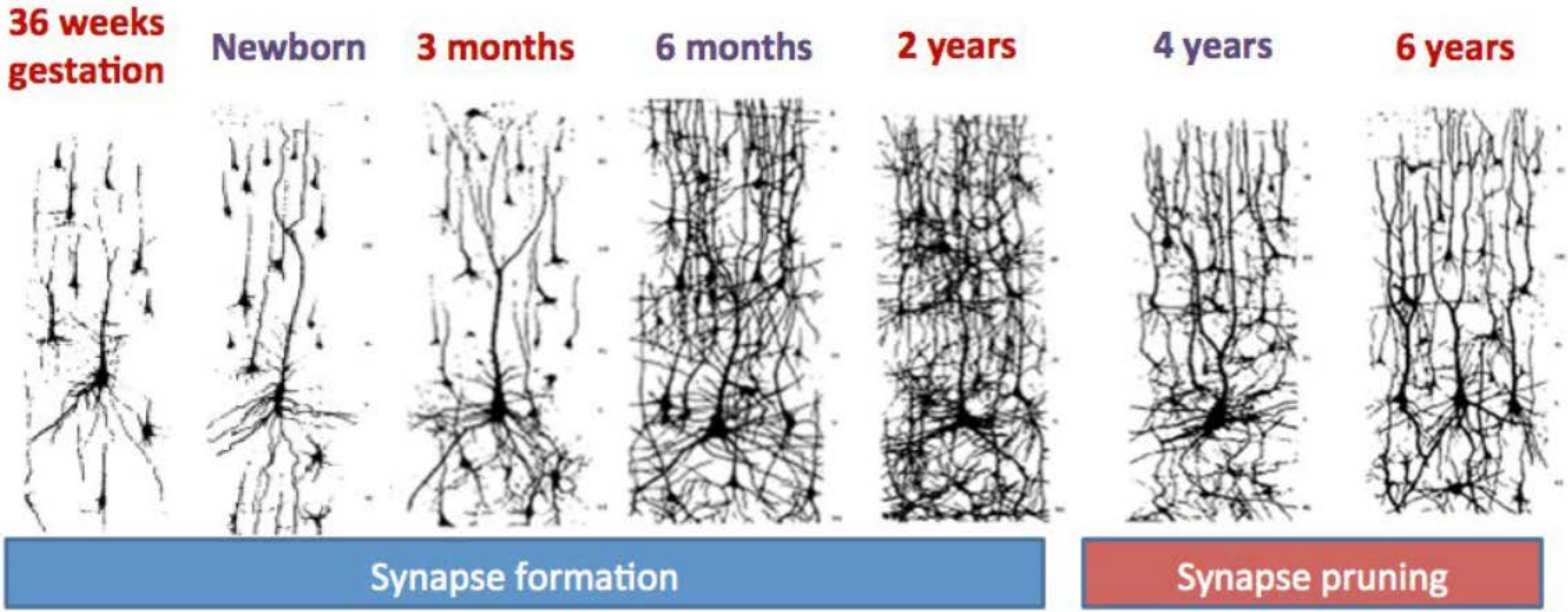
Health Outcomes & Cost

- Poor physical health, emotional, behavioral, learning outcomes
- Children who experience homelessness more likely to have been hospitalized, costing $238m annually
- Housing interventions increase health outcomes & decrease emergency department visits, hospitalizations, and costs with good ROI

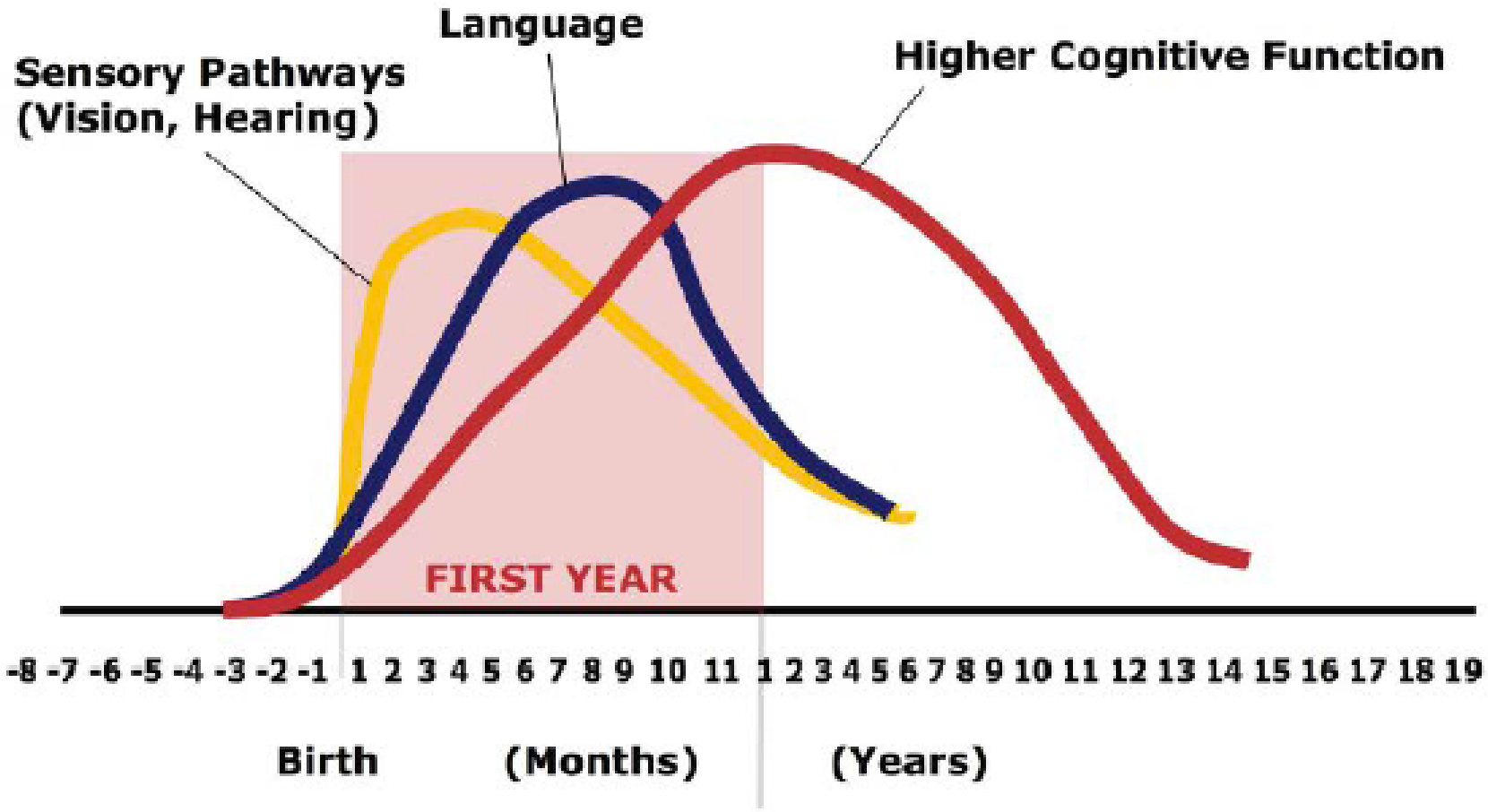
Housing is health care: Housing high cost/high risk people

- New York Medicaid 40% ↓ in inpatient days, 26% ↓ in ED visits and a 15% ↓ in overall cost.
- Massachusetts' Pay for Success Housing Initiative ↓ average of $14,365 per tenant during the first 6 months.
- Housing First Seattle Median monthly costs ↓ from $4066 per person to $1492 and $958 after 6 and 12 mos.
- Bud Clark Commons Housing Initiative in Portland Oregon In first year, 55% ↓ in average costs per month ($2,006 to $899) and significant improvement in health.
- Pathways to a Healthy Bernalillo County, New Mexico Program - Completion of the housing pathway is estimated to have ↓ healthcare cost savings by between $555,500 and $925,833.
- The 10th Decile Project in Los Angeles –ROI 2:1 in first year, 6:1 in subsequent years.
- Chez Soi/At Home Study-Canada – ROI 10:1
- SF Dept. of Public Health & Mercy Housing) - ↓ annual cost $19,000 to $29,000 per person
- Randomized Trial of Supportive Housing in San Francisco - After 1 year, treatment group medical costs ↓ >50%, control group costs rose.

Early Experiences Shape Brain Architecture

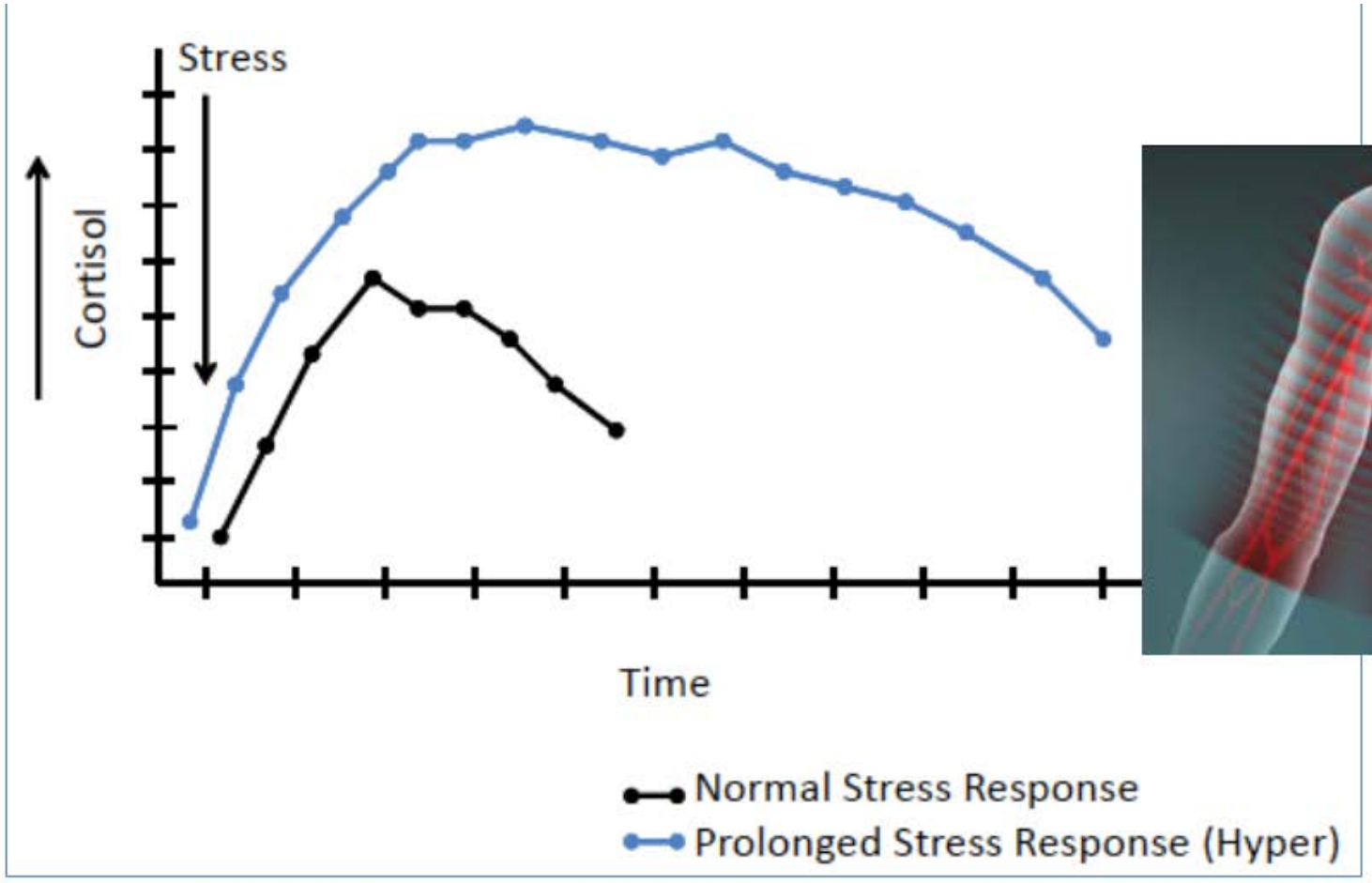


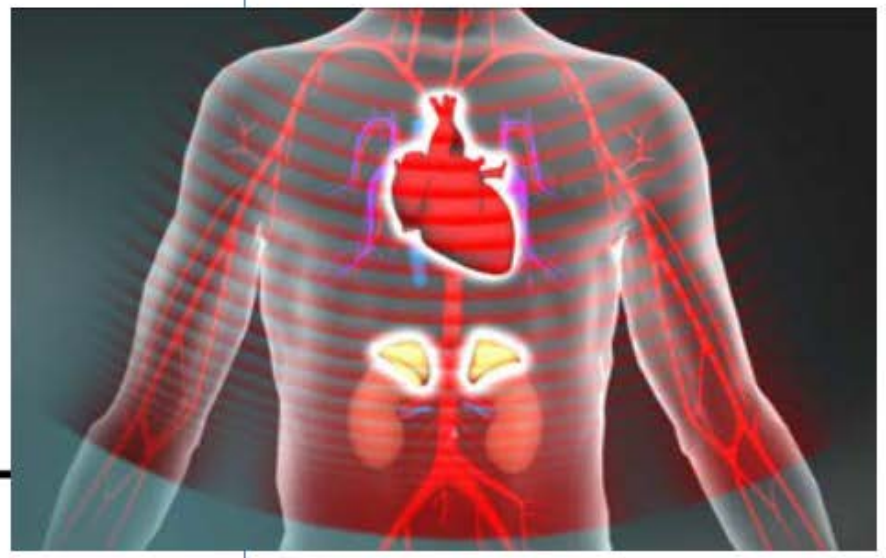
Neural Connections for Different Functions Develop Sequentially



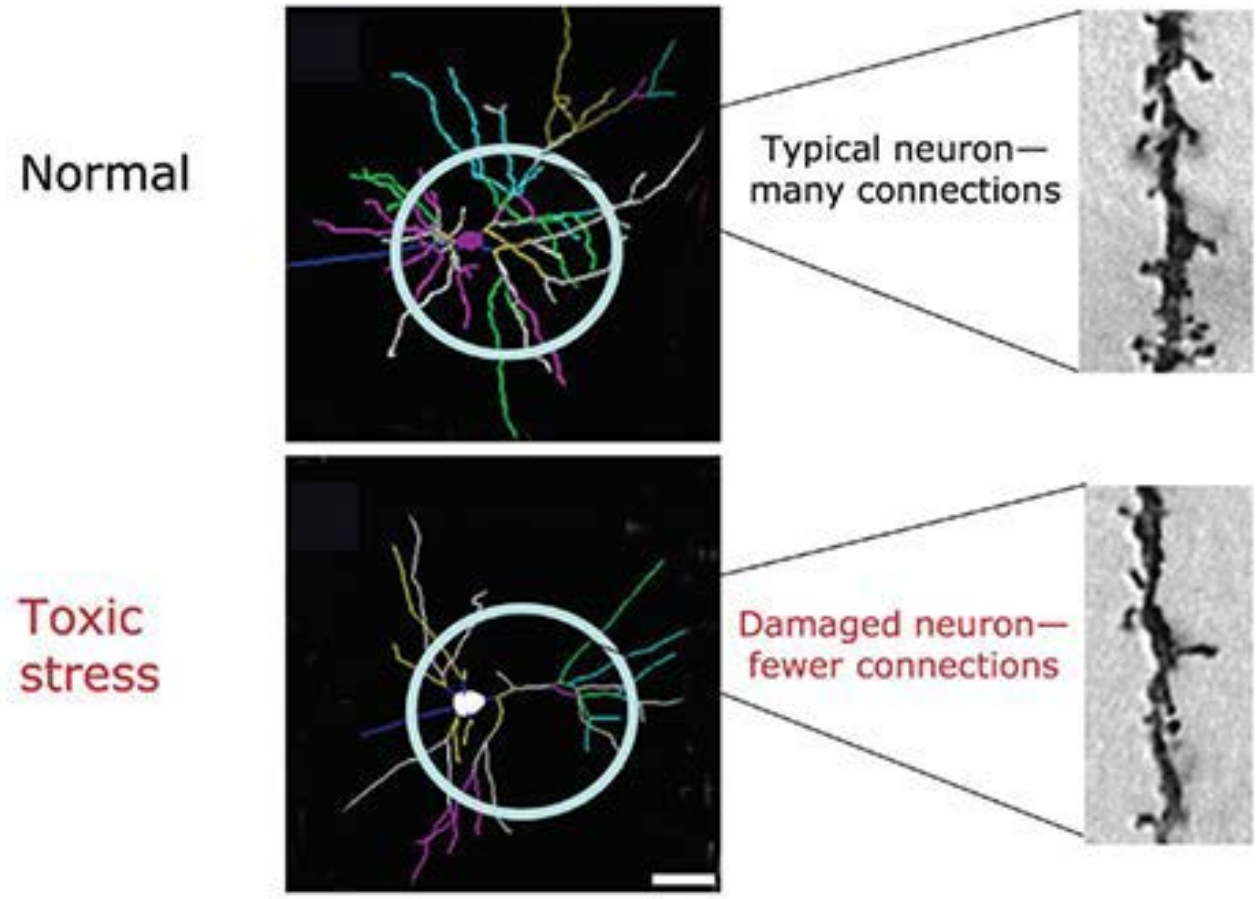
Source: C.A. Nelson (2000)

Adverse Childhood Experiences/ Toxic Stress Alters Normal Cortisol Response

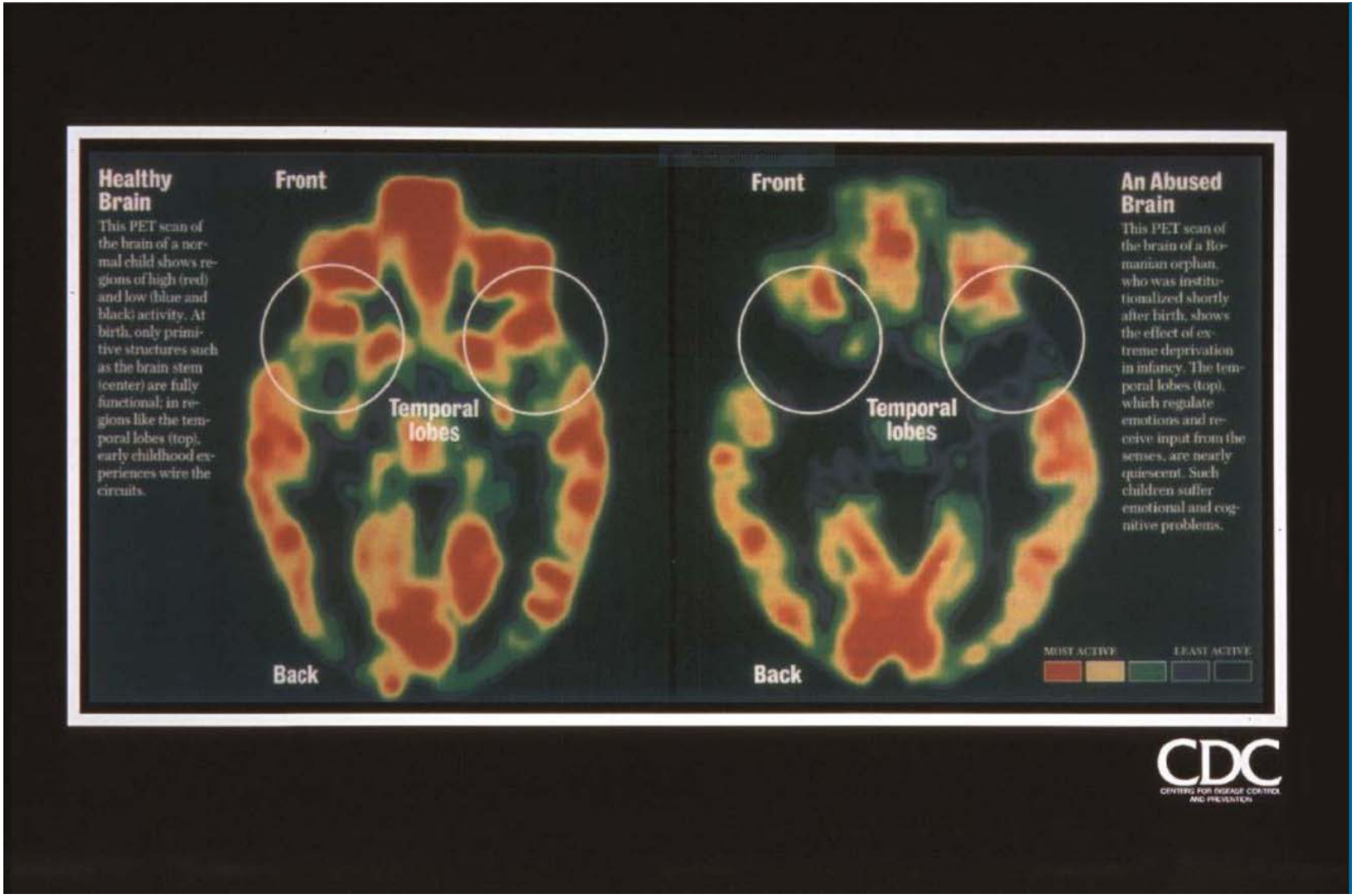




Persistent Stress Changes Brain Architecture



Center on the Developing Child, Harvard University

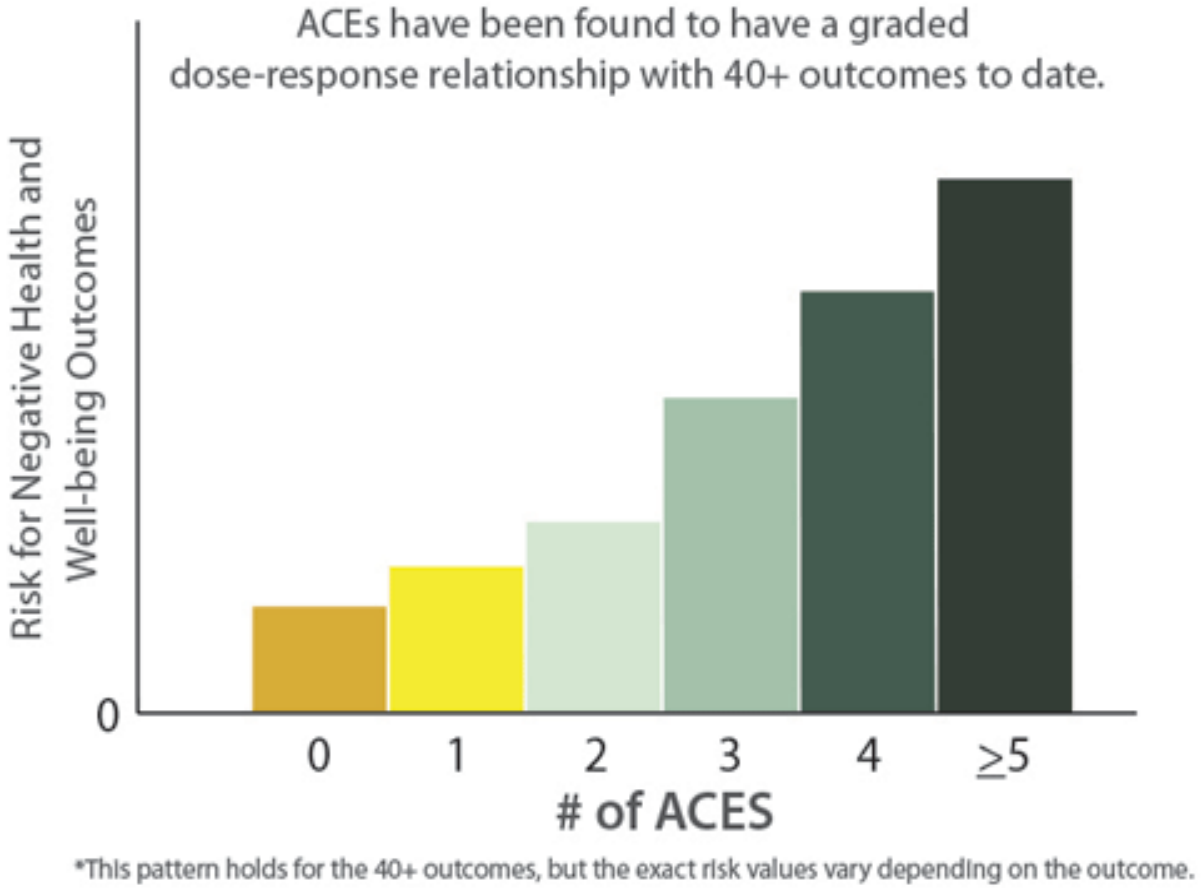

Healthy Brain
This PET scan of the brain of a normal child shows regions of high (red) and low (blue and black) activity. At birth, only primitive structures such as the brain stem (center) are fully functional; in regions like the temporal lobes (top), early childhood experiences wire the circuits.
Front
Temporal lobes
Back
Front
Temporal lobes
Back
An Abused Brain
This PET scan of the brain of a Romanian orphan, who was institutionalized shortly after birth, shows the effect of extreme deprivation in infancy. The temporal lobes (top), which regulate emotions and receive input from the senses, are nearly quiescent. Such children suffer emotional and cognitive problems.
MOST ACTIVE
LEAST ACTIVE
CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

ACES can have lasting effects on….

Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)

Behaviors (smoking, alcoholism, drug use)

Life Potential (graduation rates, academic achievement, lost time from work)



What *can* Be Done About ACES?

These wide-ranging health and social consequences underscore the importance of preventing ACEs before they happen. **Safe, stable, and nurturing relationships and environments** (SSNREs) can have a positive impact on a broad range of health problems and on the development of skills that will help children reach their full potential. Strategies that address the needs of children and their families include:

Voluntary home visiting programs can help families by strengthening maternal parenting practices, the quality of the child's home environment, and children's development. Example: Nurse-Family Partnership

e.g. Triple P, Parents as Teachers, Nurse Family Partnership, CC4C, Family Connects, Child First, Incredible Years, Parent Child Psychotherapy, Trauma Focused Therapy, Circle of Security

Home visiting to pregnant women and families with newborns

Parenting training programs

Intimate partner violence prevention

Social support for parents

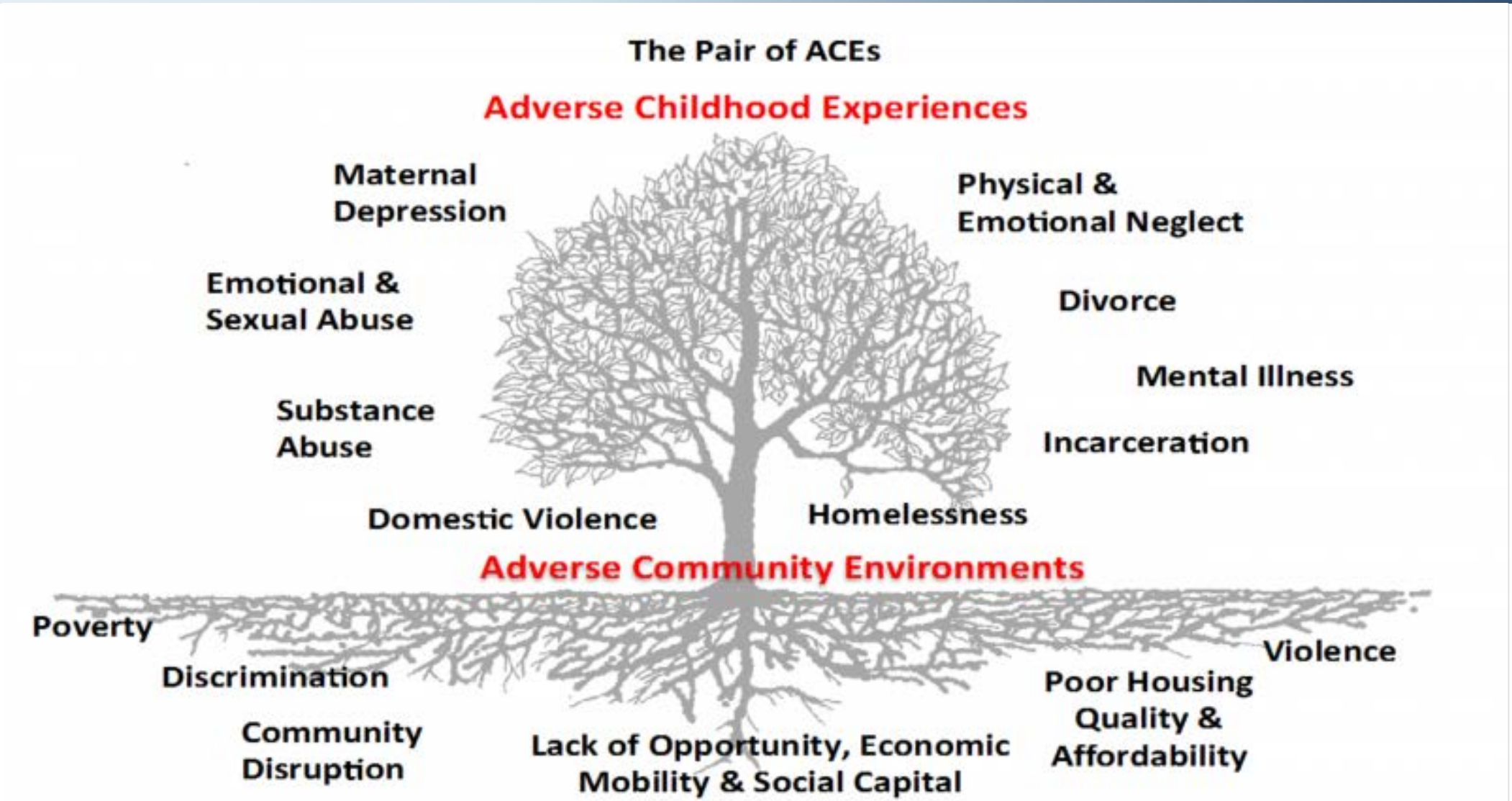
Parent support programs for teens and teen pregnancy prevention programs

Mental illness and substance abuse treatment

High quality child care

Sufficient Income support for lower income families

Centers for Disease Control and Prevention. Adverse childhood experiences

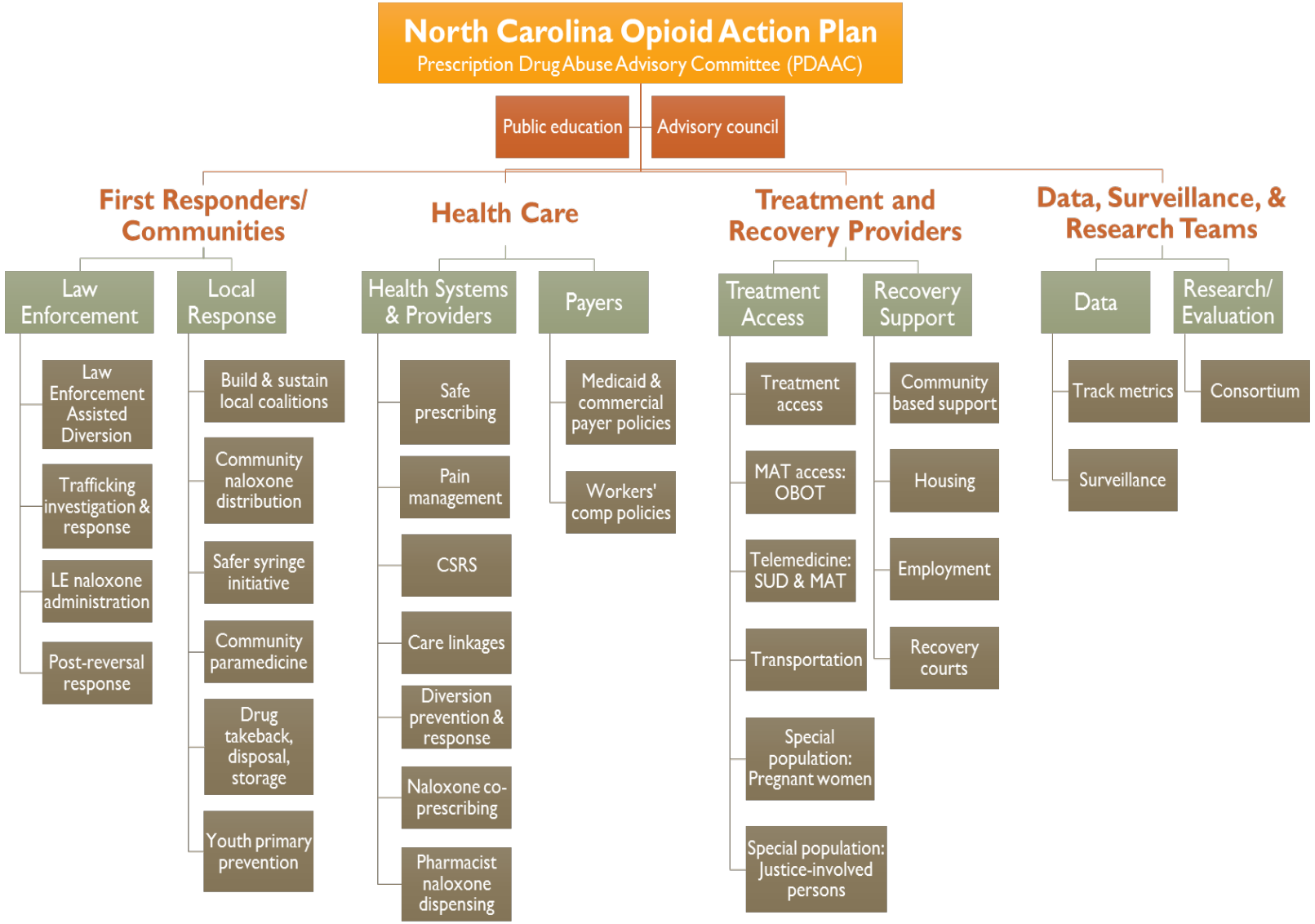


Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. Academic Pediatrics. 17 (2017) pp. S86-S93. DOI information: 10.1016/j.acap.2016.12.011

NC DHHS Priorities – through that lens

- Opioid Crisis
- Early Childhood
- Opportunities for Health
- Medicaid Transformation

Opioid Crisis



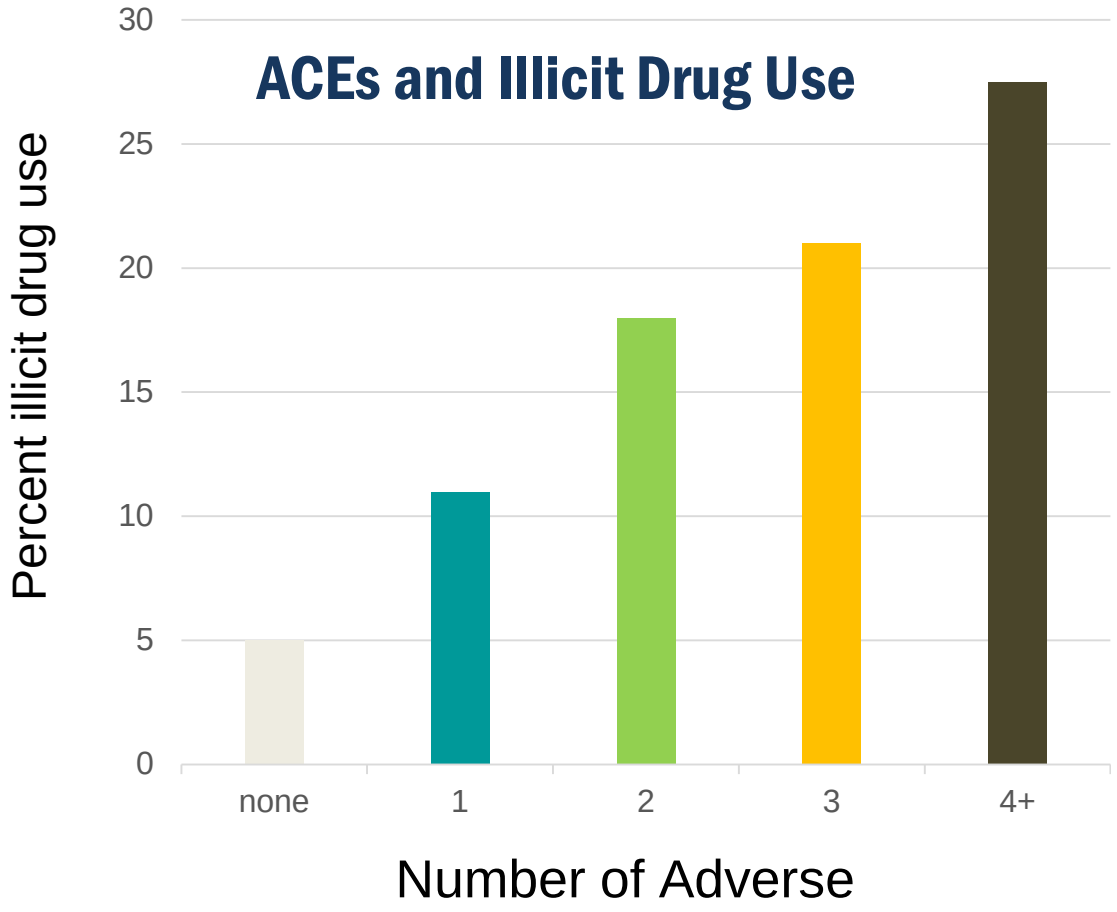
FOCUS AREAS

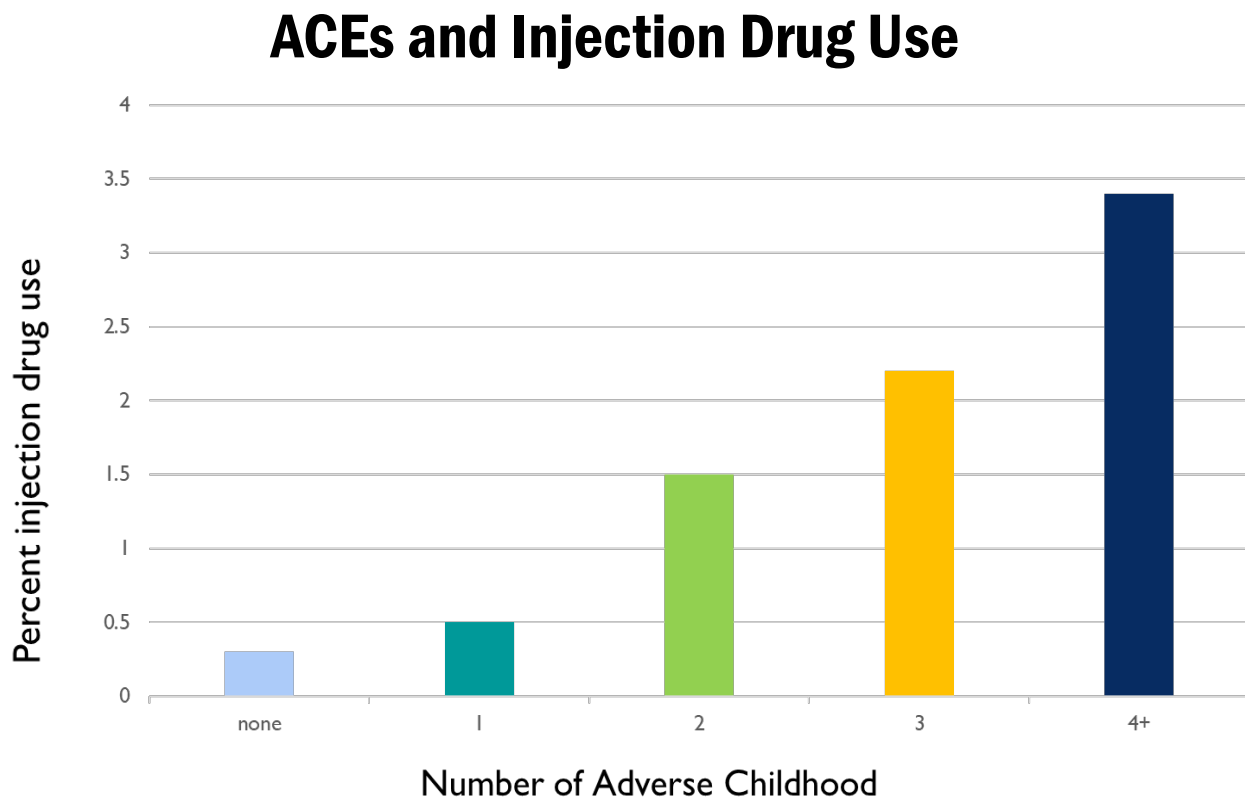
- Create a coordinated infrastructure
- Reduce oversupply of prescription opioids
- Reduce diversion of prescription drugs and flow of illicit drugs
- Increase community awareness and prevention
- Make naloxone widely available and link overdose survivors to care
- Expand access to treatment and recovery oriented systems of care
- Measure our impact and revise strategies based on results

Pediatrics. 2003 Mar;111(3):564-72.

Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study.

Dube SR[1], Felitti VJ, Dong M, Chapman DP, Giles WH, Anda RF.





Estimates of the Population Attributable Risk* of ACEs for Drug Use Problems

Drug Use Problem	PAR
Drug misuse	56%
Addiction	64%
IV drug use	67%

Implications for our Opioid Epidemic

*The portion of a condition attributable to specific risk factors

Source: Dube S, Felitti V, Dong M, Chapman D, Giles W, Anda R. Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. Pediatrics. 2003 Mar;111(3):564-72.

Early Childhood Action Plan

Access to Healthy Food

Job training and availability

Family Forward Work places

Closing the coverage gap for parents

Income support for lower income families

Pregnancy intendedness

Behavioral Health and Substance Use Prevention and Treatment

High Quality early child care and pre-school

Early Literacy Programs

Stable, healthy housing

Trauma Informed Schools and Communities

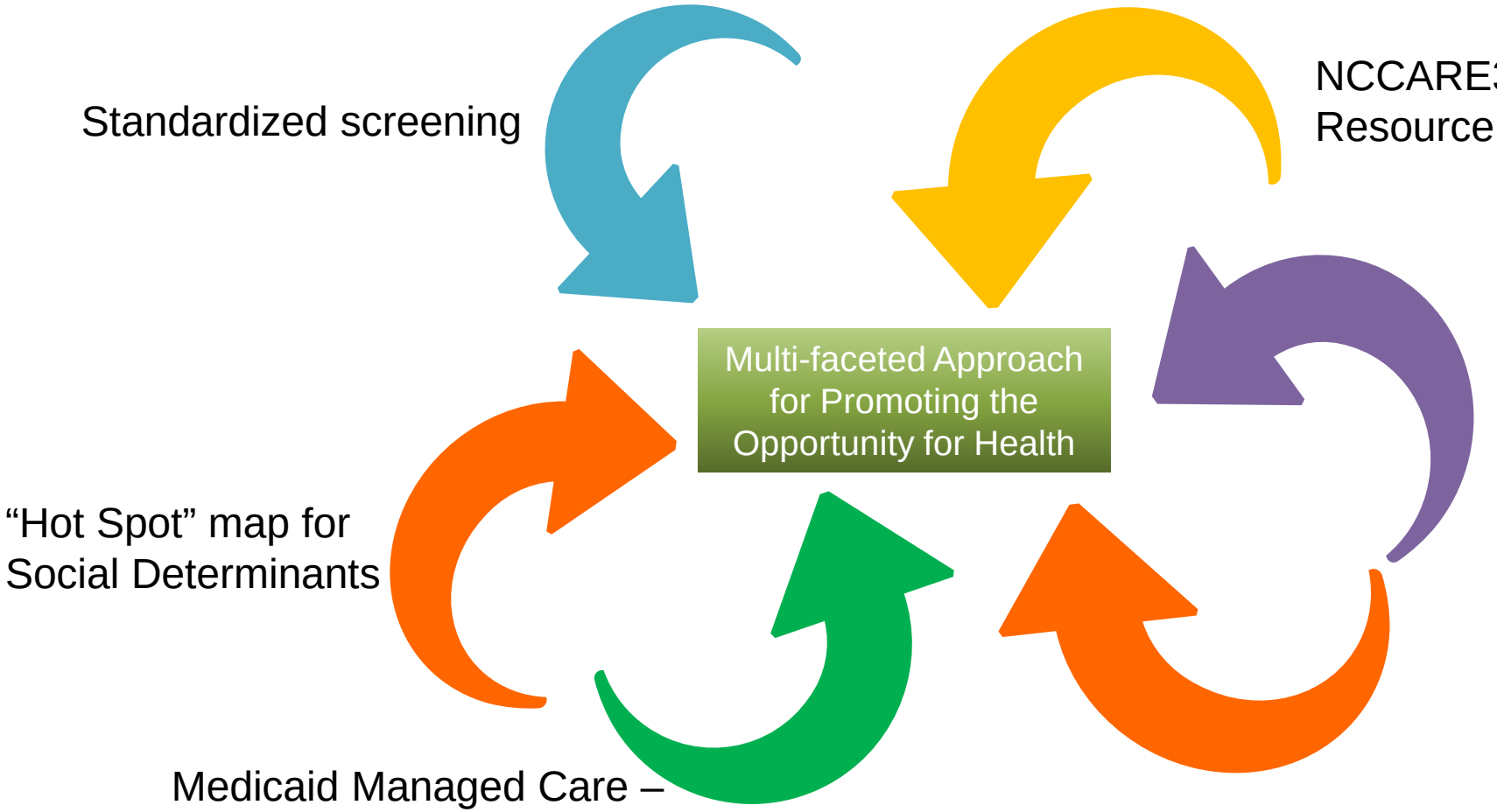
Parenting Programs with transportation and child care support

Home visiting programs for young families

Intensive Family Support and Therapy (e.g. Sobriety Treatment and Recovery Teams)

Intimate Partner Violence Prevention and Intervention

Statewide Framework for Healthy Opportunities



https://www.ncdhhs.gov/about/department-initiatives/healthy-opportunities

North Carolina Social Determinants of Health by Regions

About | Region 1 | Region 2 | Region 3 | Region 4 | Region 5 | Region 6 | Region 7 | Region 8 | Region 9 | Region 10

A story on health inf...

NC Social Determinants of Health - Local Health Departments Region 4

Median household income, unemployment, and those who have no health insurance.

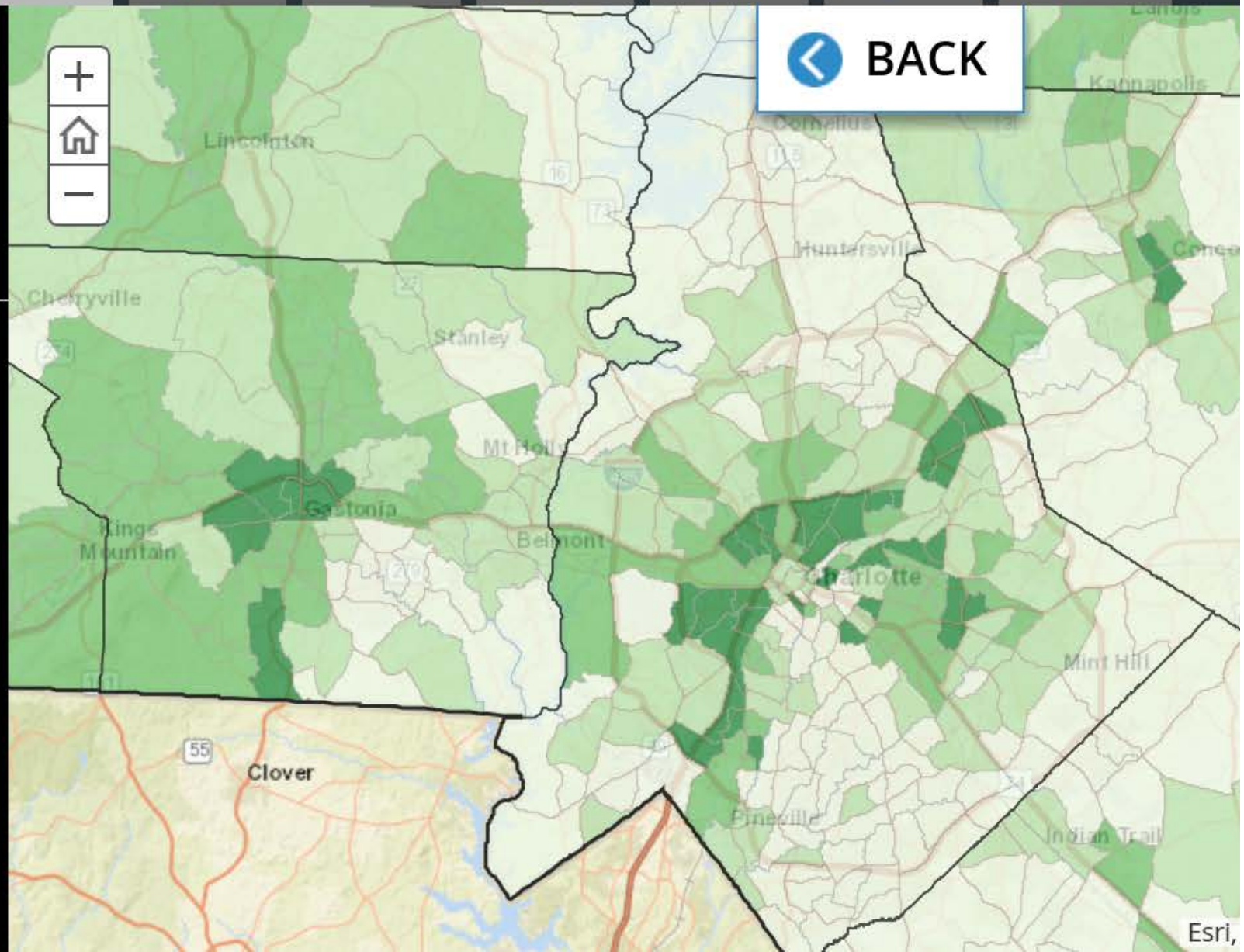
Median Household Income

Percent Below Poverty

Areas of Concentrated Poverty

Percent Unemployed

Percent Uninsured



What is NCCARE360?

NCCARE360

NCCARE360 is the first statewide coordinated network that includes a robust data repository of shared resources and connects healthcare and human services providers together to collectively provide the opportunity for health to North Carolinians.

NCCARE360 Partners:

Foundation for Health Leadership & Innovation
Moving people and ideas into action.

UNITE US

Expound

NCDHHS

NORTH CAROLINA 211

United Way
United Way of North Carolina

Three Partners
Three Deliverables

NCCARE360

- Text and Chat
- Dedicated navigators
- Data team verifying resources

UNITE US

- Intake and Referral
- Outcomes Platform
- Local agency engagement
- Outcomes Reporting
- Web Search and Site

Expound

- System Integration
- Data Repository
- Accepts and shares resources

What is a Coordinated Network?

NCCare360
NC RESOURCE PLATFORM

Connecting service providers on a common technology platform to make electronic referrals, communicate in real-time, share client information, and track outcomes together.

Network Model: No Wrong Door Approach

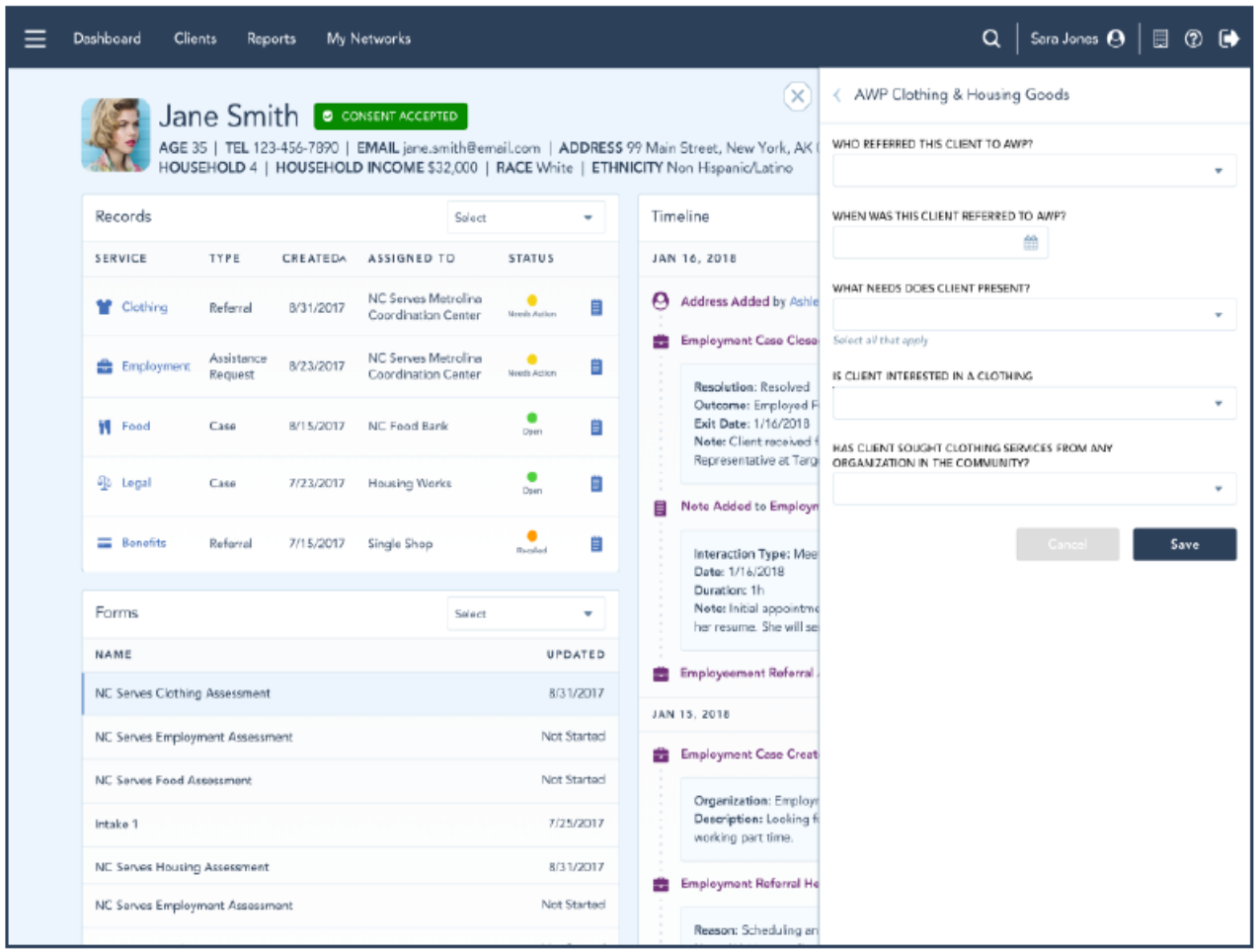
Understanding Referral Workflows

NCCARE360

From Hello to Outcome, You are Connected

Automated workflows between your external partners at scale

NCCARE360



Configurable Screening:
Patient and/or provider facing algorithmic screenings to stratify risk and identify specific co-occurring needs

Electronic Referral Management:
Seamless referral workflow sends the right data to the right provider(s) to address specific needs

Assessment/Care Plan Management:
Custom care plans for each service need that are attached to referrals so receiving providers get a head start

Bi-Directional Communication/Alerts:
Automated notifications keep all organizations up to date, while care team members can securely communicate with each other

Outcomes:
You get to know exactly what services were delivered, and the entire history for every intervention by your external partners

Medicaid Transformation

- **Integrated Care at provider, care management, and payment level**
  - **Standard Plan**
  - **Tailored Plans for people with more complex behavioral health needs**
- **Address health-related social needs and reduce health inequities**
- **Care Management that builds upon existing local, community based infrastructure**
- **Statewide Quality Strategy that includes population health metrics**
- **Alternative and Value-Based Payments**

Medicaid Transformation

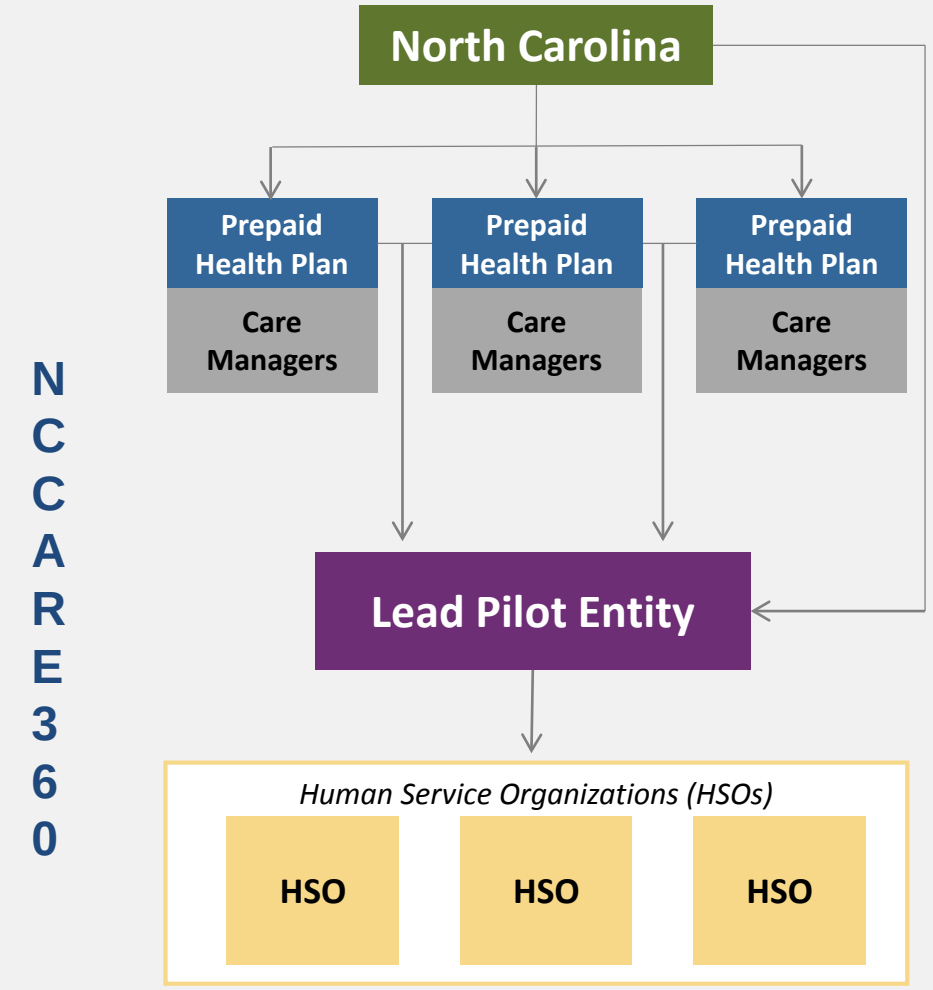
- **Care Management**
  - Training on Trauma Informed Care, Resource Navigation
  - Care Management Team (RN, SW, Housing Specialist, Legal Specialist)
  - Standardized screening questions
  - Navigation to resources – NCCARE360

- **Quality Strategy** - screening for and addressing social issues;

- **Flexibility** to allow for Health Plans to finance health-related services
  - Health related services (e.g. food and community investments) can count in numerator of Medical Loss Ratio (MLR)
  - In lieu of services
  - Alternative payment models

Healthy Opportunities Regional Pilots

Sample Regional Pilot



Pilot Overview

- Authorization to spend up to $650 million in 2-4 regions
- Test and scale to a population level evidence-based interventions designed to improve health and reduce costs more intensely addressing food insecurity, housing quality and instability, transportation insecurity, interpersonal violence and toxic stress
- For eligible Medicaid beneficiaries (health and social risk)
- Key pilot entities include:
  - North Carolina DHHS
  - Prepaid Health Plans (PHPs)
  - Care Managers (predominantly located at Tier 3 AMHs and LHDs)
  - Lead Pilot Entities
  - Human Service Organizations (HSOs)
- NCCARE360 part of the infrastructure

Overview of Eligibility For Pilot Services

To be eligible for pilot services, Medicaid managed care enrollees must have:

☑ At least one Needs-Based Criteria:

Physical/behavioral health condition criteria vary by population:

- Adults (e.g., 2 or more chronic conditions)
- Pregnant Women (e.g., multifetal gestation)
- Children, ages 0-3 (e.g., Neonatal intensive care unit graduate)
- Children 0-21 (e.g., Experiencing three or more categories of adverse childhood experiences)

+

☑ At least one Social Risk Factor:

- Homeless and/or housing insecure
- Food insecure
- Transportation insecure
- At risk of, witnessing or experiencing interpersonal violence

**See appendix for full list of eligibility criteria.*

Overview of Approved Pilot Services

North Carolina's 1115 waiver specifies services that can be covered by the Pilot. Pilots will not be required to offer all approved services.

Housing

- Tenancy support and sustaining services
- Housing quality and safety improvements
- One-time securing house payments (e.g., first month's rent and security deposit)
- Short-term post hospitalization housing

Food

- Linkages to community-based food services (e.g., SNAP/WIC application support, food bank referrals)
- Nutrition and cooking coaching/counseling
- Healthy food boxes
- Medically tailored meal delivery

Transportation

- Linkages to existing public transit
- Payment for transit to support access to pilot services, including:
  - Public transit
  - Taxis, in areas with limited public transit infrastructure

Interpersonal Violence

- Linkages to legal services for IPV related issues
- Evidence-based parenting support programs
- Evidence-based home visiting services

**See appendix for full list of approved pilot services.*

Defining and Pricing Pilot Services

- Fee schedule
  - Advisory Committee (National and NC Representation)
  - RFI to inform fee schedule
- Types of service reimbursements:

Payment Type	Description	Likely Services for Payment Type
Fee-for-service	A rate set prior to service delivery for a discrete service. May include a base rate and adjustments for region, acuity, etc.	Services whose cost may be reasonably calculated in advanced (e.g. medically tailored meals; consultation with specialized social worked)
Cost-based reimbursement	A payment for actual bulled cost of services. May include guardrails such as maximums per beneficiary per type of service.	Services whose prices are set by a contractor (e.g. 1st month's rent and security deposit; extermination of mold remediation services)
Bundled Payment	A rate set prior to service delivery for an estimated bundle of services that may be delivered in a variety of ways depending on beneficiary needs.	- Services provided as part of a longitudinal relationship - Services that meaningfully address a need when provided in complimentary package

Financing – Path to Value

- **Advancing value-based payment**

Year 1	Year 2	Year 3	Year 4	Year 5
Incentive payments for successful implementation	Incentive payments for delivering pilot services	Withhold payments to ensure enrollees unmet resource needs are met	Withhold payments linked to health outcomes	Shared savings payments*

*Costs savings based on subset of pilot enrollees whose services are likely to result in decreased medical expenses in the short-term. Assures pilot entities are not penalized for approving effective, evidence-based upstream interventions that result in a financial return on investment over the longer-term

Evaluation - Rapid cycle/Summative

- Sheps Center/Seth Berkowitz
- Rapid cycle assessments
  - Evaluation throughout pilots to learn in real time and make adjustments
  - Evolving metrics - Operational readiness, service delivery, resource needs met, self-reported quality of life, health outcomes, utilization, cost
- Summative evaluation
  - Health, utilization, and cost savings overall and by sub-groups
  - Determine cost-neutrality and cost-effectiveness of interventions by sub-group
  - Implementation science
  - Learn how to scale interventions that worked into Medicaid statewide

Process/Time Line

- **Early 2019: Request for Information (RFI)**
- **Mid 2019: Request for Proposals (RFP)**
  - **RFP will determine LPEs/ Pilot Regions**
- **Late 2019: Award LPEs/ Pilot Regions**
- **2020: Full year of capacity building for LPEs and regions**
- **January 1, 2021: Begin Service Delivery**
- **October 31, 2024: End Pilots (at end of 1115 waiver)**

Questions?

Screening Questions

Health Screening

We believe everyone should have the opportunity for health. Some things like not having enough food or reliable transportation or a safe place to live can make it hard to be healthy. Please answer the following questions to help us better understand you and your current situation. We may not be able to find resources for all of your needs, but we will try and help as much as we can.

	Yes	No
Food		
1. Within the past 12 months, did you worry that your food would run out before you got money to buy more?		
2. Within the past 12 months, did the food you bought just not last and you didn't have money to get more?		
Housing/ Utilities		
3. Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)?		
4. Are you worried about losing your housing?		
5. Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed?		
Transportation		
6. Within the past 12 months, has a lack of transportation kept you from medical appointments or from doing things needed for daily living?		
Interpersonal Safety		
7. Do you feel physically and emotionally unsafe where you currently live?		
8. Within the past 12 months, have you been hit, slapped, kicked or otherwise physically hurt by anyone?		
9. Within the past 12 months, have you been humiliated or emotionally abused by anyone?		
Optional: Immediate Need		
10. Are any of your needs urgent? For example, you don't have food for tonight, you don't have a place to sleep tonight, you are afraid you will get hurt if you go home today.		
11. Would you like help with any of the needs that you have identified?		

Roles of Pilot Entities

North Carolina's 1115 waiver provides important flexibility to implement the groundbreaking Healthy Opportunities Pilot program in two to four areas of the state over a five-year period.*

PHPs' & Care Managers' Roles & Responsibilities**

- **PHPs:**
  - Must participate in pilot operating within their region
  - Must work with the LPE and its network of HSOs to implement the program.
  - Must manage a capped amount of funding for pilot services
  - Must make final determinations of pilot eligibility and service authorization.
  - Will have discretion to authorize or deny services for eligible individuals, within guardrails defined by State.
- PHPs will leverage **care managers predominantly at Tier 3 AMHs and LHDs** to:
  - Help identify need for pilot services and assess eligibility based on State-developed eligibility criteria
  - Manage pilot services authorization with PHP
  - Work with LPE to refer beneficiaries to and coordinate with HSOs
  - Assess and reassess need for pilot services on an ongoing basis

LPEs' & HSOs' Roles & Responsibilities**

- North Carolina will procure through a competitive bid **Lead Pilot Entities** (LPEs), that will:
  - Develop, manage, provide technical assistance, and facilitate payment to and oversee the network of community-based organization and social service agencies
  - Convene pilot and community entities to support communication, relationship-building and sharing best practices
- **Human services organizations** that contract with the LPE:
  - Will deliver cost-effective, evidence-based interventions addressing food insecurity, housing quality and instability, transportation insecurity. interpersonal violence and toxic stress.
  - Must be determined qualified to participate in the pilot by the LPE
  - Will submit invoices for services and will be paid by the LPE.
- **NCCARE360** – The NC Resource Platform is expected to be an important piece of the infrastructure

For more information on the Healthy Opportunities Pilots, please see the Pilot Fact Sheet

***All entities must participate in data collection and reporting activities to support evaluation and oversight efforts.*