




# A SYSTEMS APPROACH TO THE OPIOID EPIDEMIC

April 2019

The opioid epidemic is a complex challenge nested within and impacting multiple, often siloed systems. These systems span health, criminal justice, and social services, as well as broader social and economic systems that affect social welfare, socioeconomic status, market economies of drug production, and the costs to service systems and society at large. A systems approach helps policymakers overcome siloed thinking to gain a more comprehensive understanding of the challenge before them, identify and avoid historic pitfalls and unintended consequences, and find high-leverage opportunities for significant, lasting change. Systems mapping is one tool the Georgia Health Policy Center uses to generate a shared vision of a desired future, prioritize strategies, and collaborate across multiple organizations.

## WHAT IS A SYSTEMS MAP?

A systems map helps to break down a problem into its component parts:

-  Boxes identify specific population groups and relationships between these groups.
-  Arrows between groups indicate the paths that members of the group may take to becoming members of another group. Interventions that help or hinder movement from one group to another occur along these paths.
-  The faucets on the paths show that the “flow” of people from one group to another can be increased or decreased depending on the actions taken.

By highlighting these relationships, systems maps help explain how groups are affected by interventions and where interventions are needed, may be most effective, or have unintended outcomes. These interventions include upstream prevention opportunities and downstream interventions that could provide more immediate lifesaving outcomes for smaller populations, as well as intervention points for treatment and recovery.

## DEVELOPING AN OPIOID SYSTEMS MAP

In 2016, GHPC developed a systems map of the opioid epidemic by convening a systems mapping expert and a group of Georgia stakeholders representing state-level public health and behavioral health agencies, the Centers for Disease Control and Prevention, and persons in recovery and their family members. The mapping process identified the population at risk for using opioids, entry points for opioid use, and the range of leverage points for intervening in the system to address the opioid crisis.

## OVERVIEW OF THE OPIOID SYSTEMS MAP

The map illustrates pathways of opioid use and misuse; outcomes of misuse, treatment, and recovery; and potential upstream contributors to these pathways.

**Misuse:** The two central populations (boxes on the map) are the Population Misusing Prescription Opioids and the Population Misusing Illicit Opioids. The focus of the map is to describe how people become members of these groups and how they exit these groups.

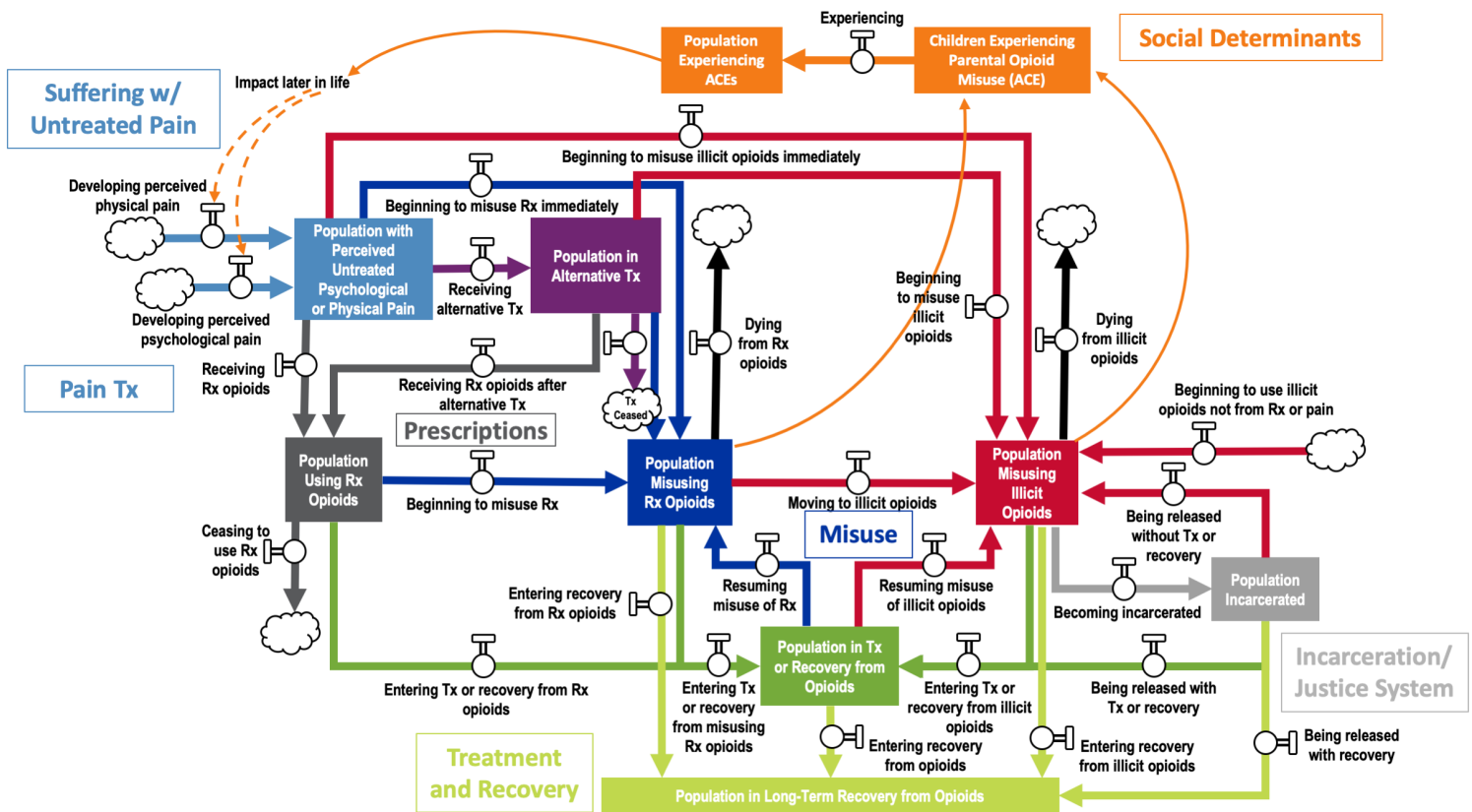
**Pain Treatment and Prescriptions:** Pain treatment with opioids, depicted in the upper left of the map, is a precursor, or upstream condition, for opioid misuse. Pain treatment with opioids or alternative nonopioid therapies may be successful or may lead to opioid misuse due to factors such as prescribing practices, barriers to alternative therapies, or unresolved pain.

**Incarceration/Justice System:** The lower right section of the map shows populations moving from illicit use to incarceration and available paths upon release from incarceration — returning to illicit use, continuing treatment and recovery, or entering long-term recovery (e.g., if recovery was stabilized while incarcerated).

**Treatment and Recovery:** The bottom area of the map depicts paths to treatment and recovery. It is divided into Population in Treatment or Recovery and Population in Long-Term Recovery.

**Social Determinants:** The top of the map shows upstream precursors to pain and suffering that are known to increase risk of opioid use. Social determinants of health, including stressful and unhealthy living conditions, limited access to education and health care, and adverse childhood experiences (ACEs), are associated with substance misuse.<sup>1</sup> The orange curved arrows illustrate how experiencing ACEs may affect the next generation and can perpetuate an intergenerational pain and substance misuse cycle. In addition, opioid misuse may directly affect infants who become opioid dependent in utero and experience neonatal withdrawal syndrome.

## THE OPIOID SYSTEMS MAP: MAPPING RELATIONSHIPS BETWEEN OPIOID USE, MISUSE, TREATMENT, AND RECOVERY



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Legend		Abbreviations	
Outside system		Rx misuse	
Developing pain		Illicit misuse	
Opioid Rx		Incarceration	
Alternative Tx		Dying	
		ACEs	
		Tx and recovery	
		Long-term recovery	

**Abbreviations**  
 ACEs = Adverse childhood experiences  
 Rx = Recovery  
 Tx = Treatment

<sup>1</sup> Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., et al. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. *The Adverse Childhood Experiences (ACE) Study. American Journal of Preventive Medicine, 14*(4), 245-58.