

# Initiative Overview

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# What Goes into Developing an FPQC Initiative?

- Work begins 9 months to a year before kick-off
- Initiatives are developed using evidence-based guidelines, research, best practices, and national expert consultation
- **Our SOOTHE Advisory committee develops the vision, aim and drivers**
- Driver specific workgroups are formed.
  - convene every two weeks to determine what potentially better practices support each driver
  - review existing tools, adapt those that are a good fit, and develop entirely new tools if needed
  - work with the FPQC team to create a toolkit, along with a toolbox with additional resources
- Data measures are developed, along with tools to report data

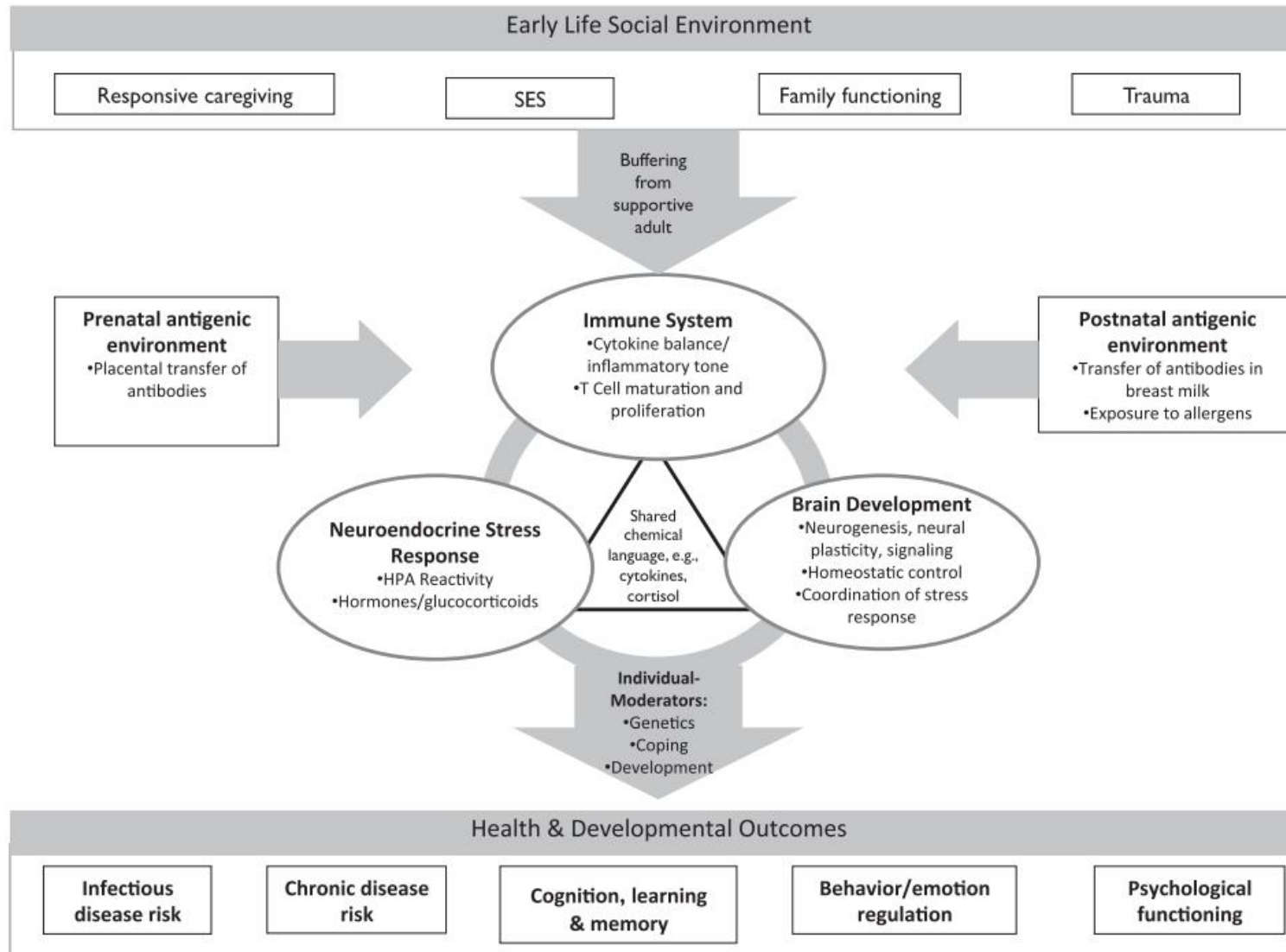
# Neuroprotection



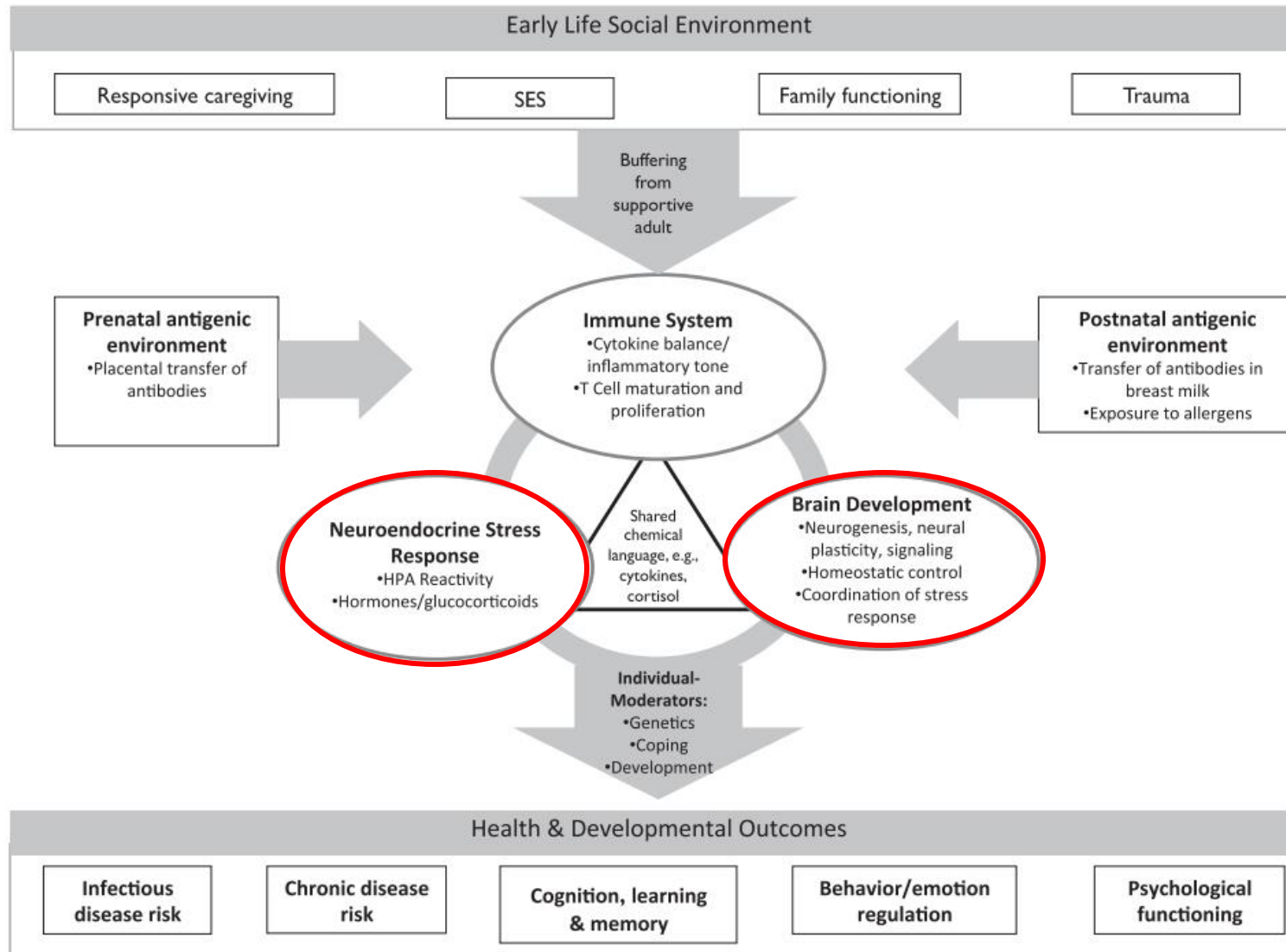
# Neuroprotection



# Ecobiodevelopmental Framework



# Ecobiodevelopmental Framework





# Trauma-Informed Care in the NICU



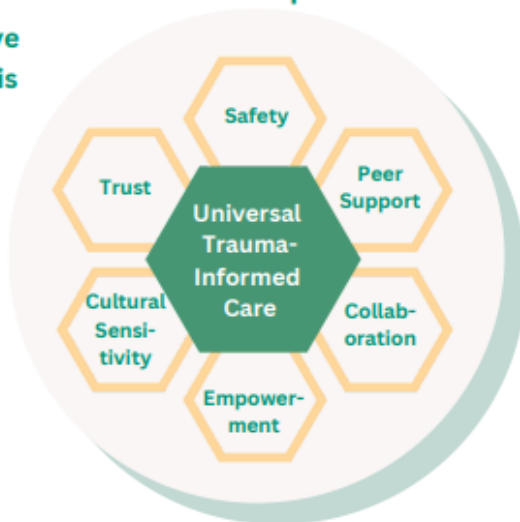
## What is Trauma-Informed Care (TIC)?

The belief that multiple dimensions of trauma can have lasting adverse effects on well-being and function. This includes physical/bodily and psychological injuries and is unique to each individual and their experience.

### Why does the NICU potentially lead to traumatic stress?

- Challenges sense of safety.
- Senses of life threat.
- Feeling helplessness.
- Feeling pain or Observed Pain.
- Decision making during times of distress.

## The Six Principles of TIC



### What is Toxic Stress?

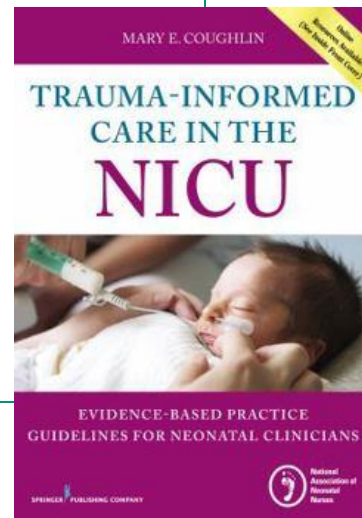
- Strong, frequent, or prolonged activation of stress response system.
- There is an absence of buffering protection of supportive relationships (i.e. Adverse Childhood Experiences [ACEs]: child abuse, neglect, parent substance abuse, maternal depression).
- May result in anatomic changes, physiologic dysregulations that are precursors of later impairments in learning and behavior or disease.
- Multiple exposures to ACEs increase the risk of later adult morbidity and early mortality.

### Examples of Toxic Stress for NICU Infants

- Separation from their parents.
- Inconsistent bedside caregivers.
- Repeated painful procedures without support.
- Inappropriate developmental sensory environment.

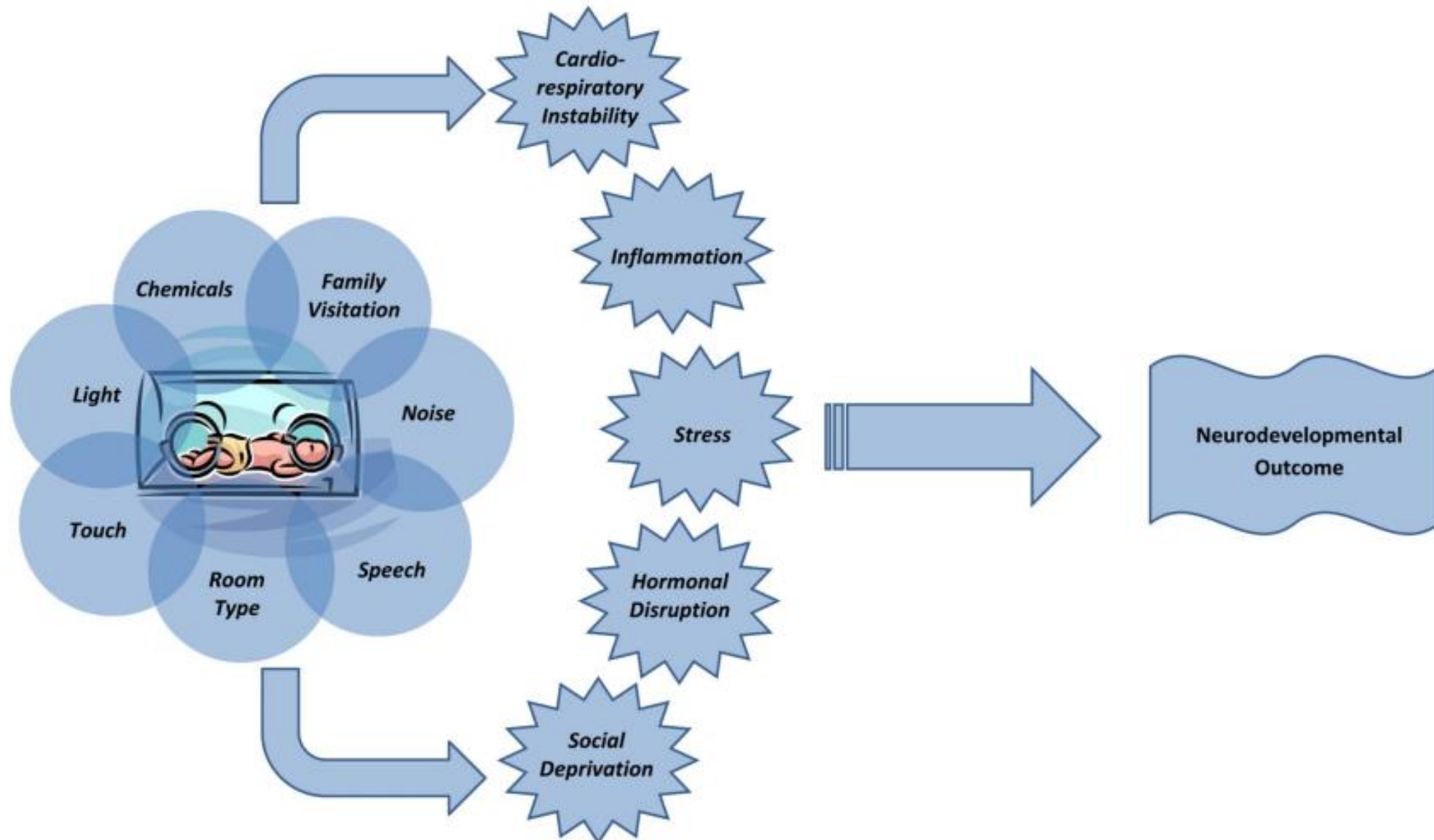
# Characteristics of Healing Environment in the NICU

Physical Environment	Human Environment	Organization Environment
<p>Soothing Spacious Aesthetically Pleasing</p> <p>Conducive to Rest Healing Establishing therapeutic relationships</p>	<p>Teamwork Mindfulness Caring</p>	<p>Just Culture Safety Culture</p>

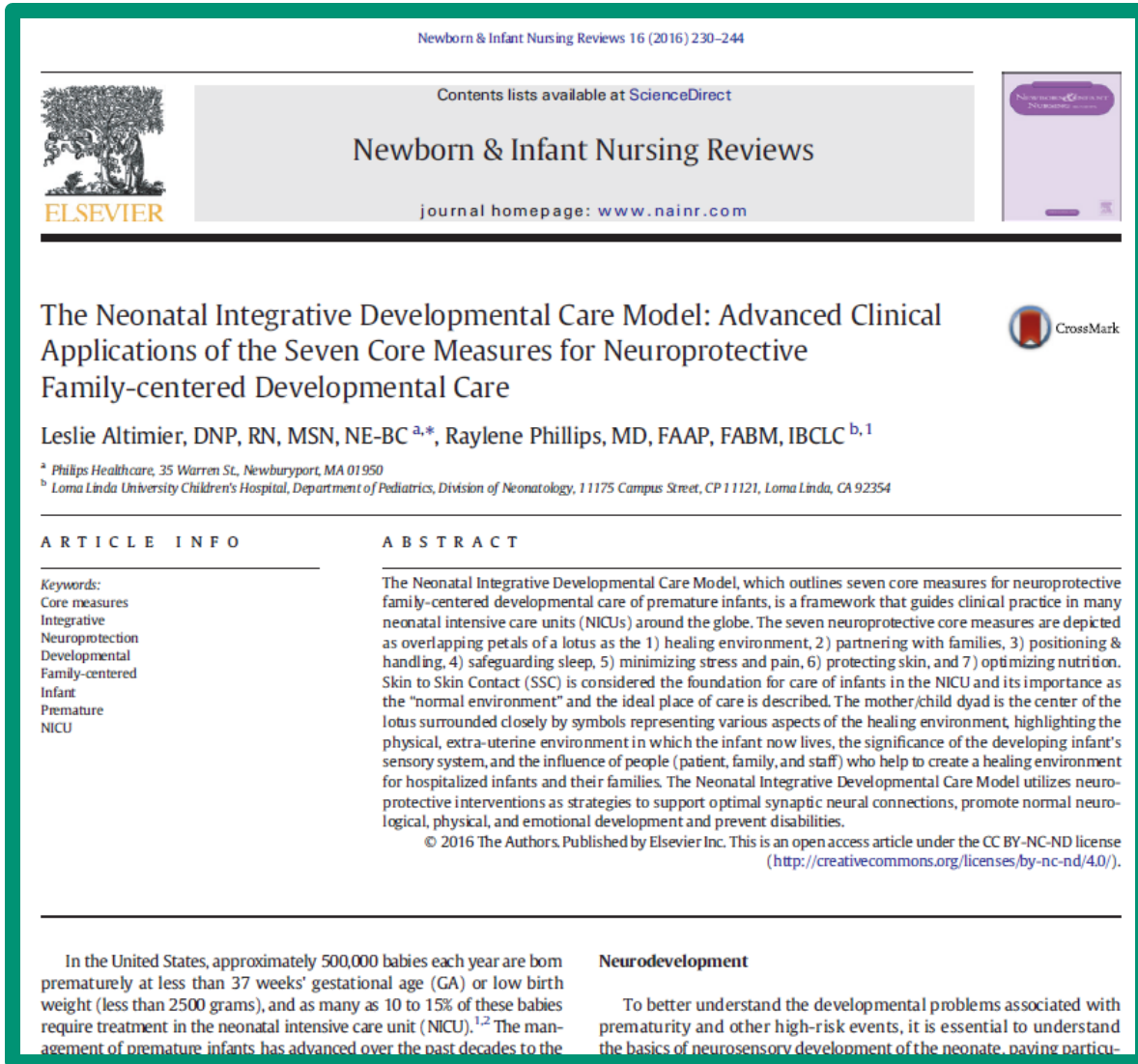




# Environmental Exposures Occur During Critical Neurodevelopment Periods

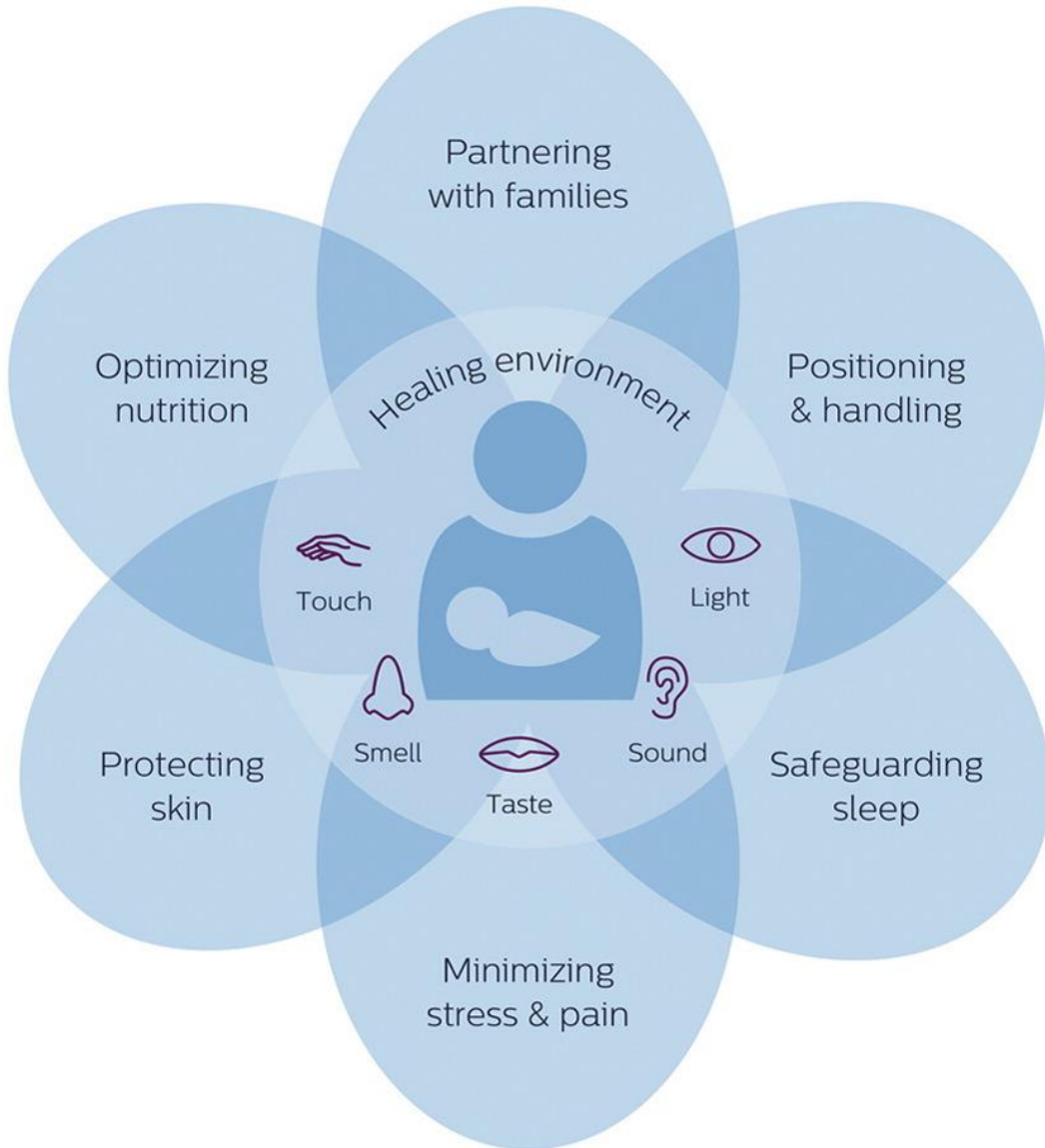


# Neuroprotective Family-Centered Developmental Care



- Environment plays a critical role in how an infant develops, recovers, and grows.
- Hospitals partner with families to restore the parent-infant attachment.
- To achieve optimal outcomes, special care needs to be directed in improving the daily NICU experience through minimizing stress.

# Neuroprotective Core Measures



- Neuroprotective core measures are depicted on the left by each petal.
- This diagram represents all aspects of the healing environment that influence the growing sensory environment of the infant.

# Alliance for Innovation on Maternal Health (AIM) - 5Rs Framework

**Readiness**

*Every Team*



Be prepared before a complication occurs

**Recognition**

*Every Patient*



Identify risk early and take steps to prevent harm

**Response**

*Every Event*



Act quickly and appropriately when issues arise

**Reporting & Systems Learning**  
**Respectful, Supportive Care**

# SOOTHE Foci

## **Readiness:**

**Creating a Sensory-Supportive Environment**

Assessing & standardizing environmental practices to support infants' sensory needs.

## **Recognition:**

**Identifying Noxious Stimuli and Stress Cues**

Promoting early & consistent recognition of infant stress, pain, or overstimulation.

## **Response:**

**Delivering Intentional, Therapeutic Interactions**

Strengthening caregiving practices in response to stress cues through gentle, purposeful touch.

## **Respectful Care: Partnering with Families**

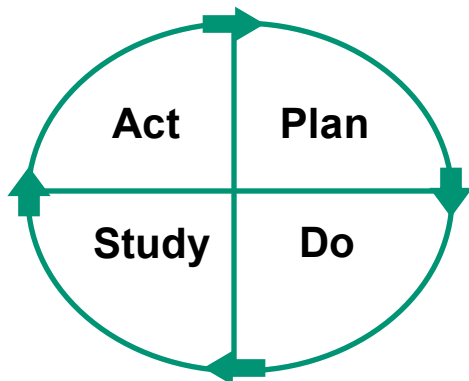
Integrating respectful, family-centered care into every stage of the NICU stay.

# Building a QI Project: IHI Model For Improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?





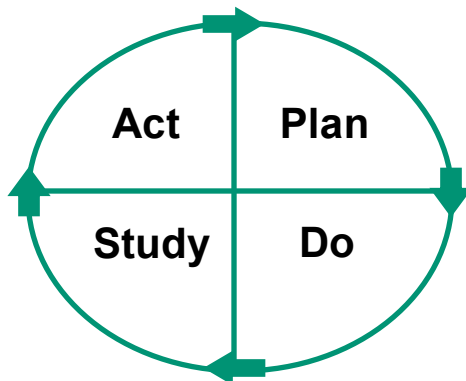
# Building a QI Project: IHI Model For Improvement

What are we trying to accomplish?

**AIM**

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# SOOTHE Aims

**Primary Aim:** by June 2027, **80% of participating NICUs will implement at least 1 evidence-based strategy** from each sensory domain (sight, sound, touch, and taste/smell) to improve the sensory environment.

**Secondary Aim:** by June 2027, **participating NICUs will achieve a 20% increase in families educated** on recognizing and responding to infant stress cues.

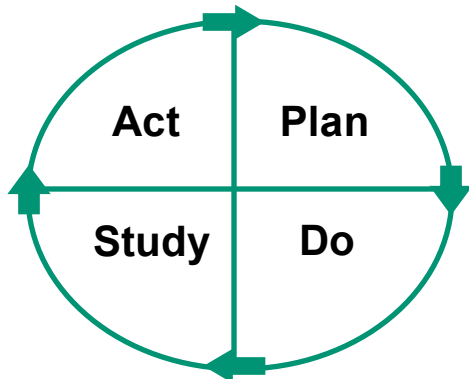
# Building a QI Project: IHI Model For Improvement

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**MEASURES:** Outcome, Process, Structural, Balancing  
**DATA CHARTS**

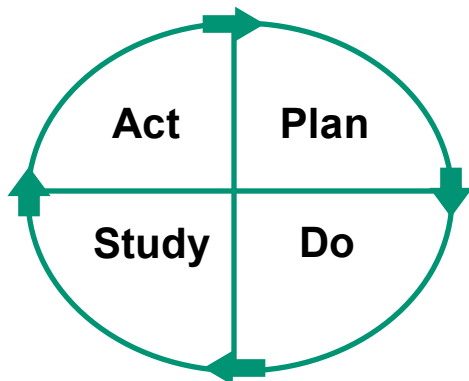


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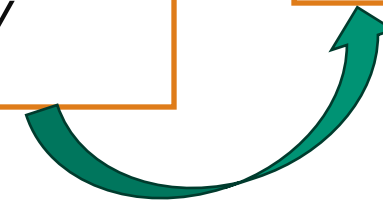


## TOOLS

Profound Knowledge:  
*Variation*  
*System*  
*Knowledge*  
*Psychology*

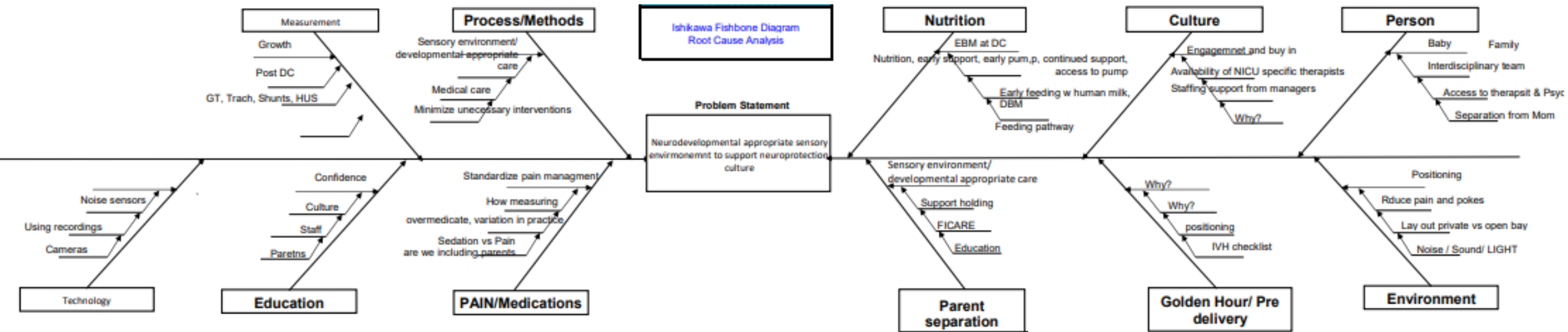
## KEY DRIVER DIAGRAM

*with*  
*Potentially Better*  
*Practices*



# Fishbone Diagram: “Neurodevelopmental appropriate sensory environment to support neuroprotection in culture”

A fishbone diagram is an easy tool to use to get the conversation started.



# SOOTHE: Supporting Optimal Outcomes Through a Healing Environment

## Aim

**By 6/2027:**

- 80% of participating NICUs will implement at least 1 evidence-based strategy from each of these sensory domains (sight, sound, touch, and taste/smell) to improve the sensory environment**
- Achieve a 20% increase in families educated on recognizing and responding to infant stress cues**

## Primary Drivers



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**Sensory Environment**

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## Primary Drivers

Readiness

**Sensory Environment**

Recognition

**Noxious Stimuli**

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## Primary Drivers

Readiness

**Sensory Environment**

Recognition

**Noxious Stimuli**

Response

**Positive Touch/Interactions**

# SOOTHE: Supporting Optimal Outcomes Through a Healing Environment

**Global aim:** Support hospitals and care teams in fostering a neuroprotective NICU culture by training staff and providers, engaging families, optimizing developmentally appropriate sensory care, and minimizing unnecessary interventions to promote a nurturing environment for infants.

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Sensory Environment

Recognition

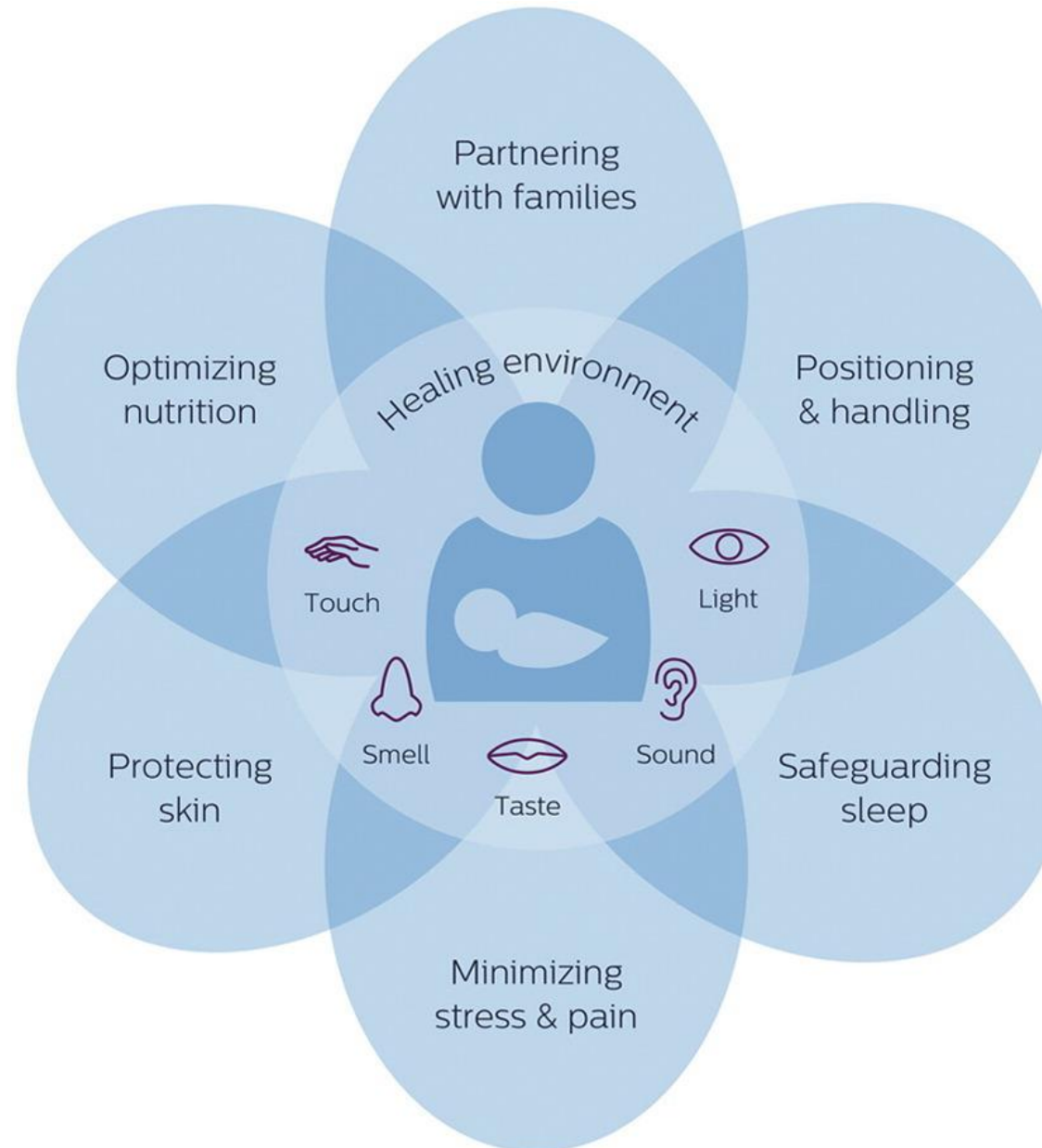
Noxious Stimuli

Response

Positive Touch/Interactions

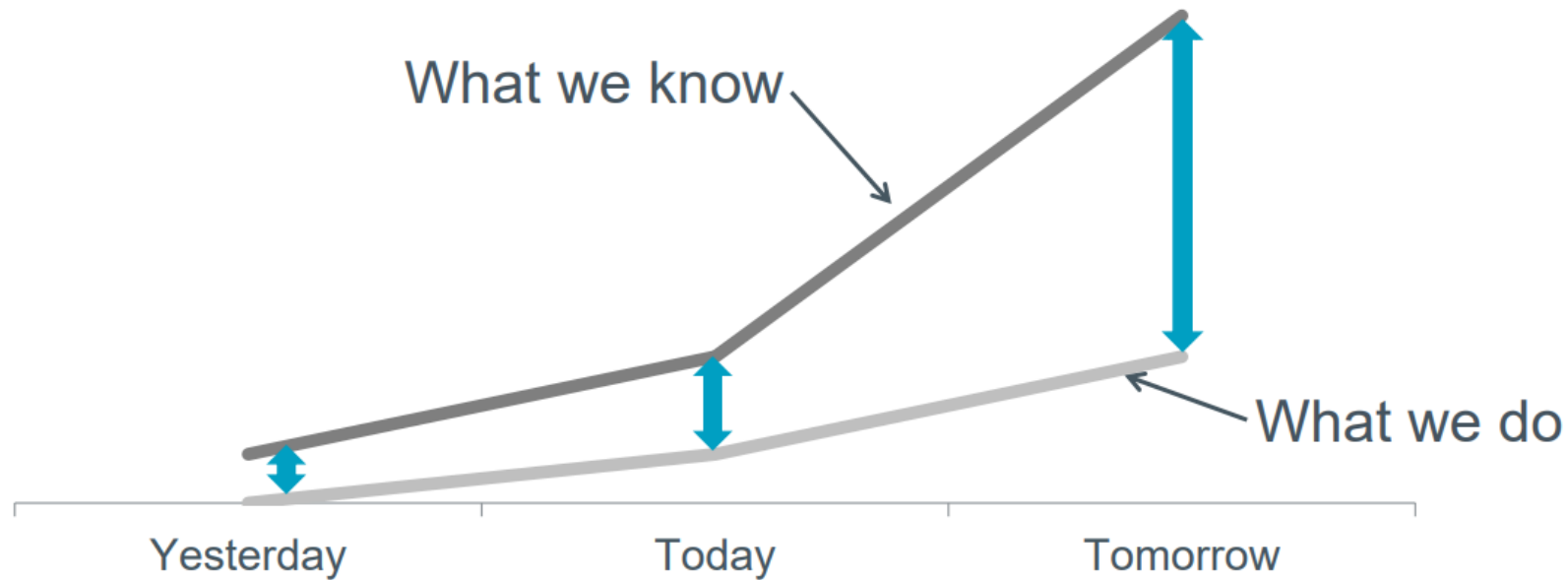
*\*Respectful care is a universal component of every driver and activity*

# The Healing Environment Affects ALL NICU Metrics



# How to close the gap?

## The “Know-Do” Gap





# SOOTHE Initiative Resources

**Monthly  
Coaching Calls  
with hospitals  
state-wide**

## **Online Toolbox**

**Algorithms, Sample protocols, Education tools, Competencies,  
Slide sets, etc.**

## **Technical Assistance**

**from FPQC staff,  
state Clinical  
Advisors, and  
National Experts**

**Educational  
sessions,  
videos, and  
resources**

**Initiative-wide  
collaboration  
meetings**

**Monthly and  
Quarterly QI  
Data Reports**

**Regular  
E-mail Bulletins**

**Custom, Personalized  
virtual, phone, or on-site  
Consultations & Grand Rounds  
Education**

# FPQC Initiative Structure

