

# 2017-2022 ACADEMIC PARTNERSHIP WITH HEAD START TO TEACH POPULATION-BASED LEAD SCREENING PROGRAM MANAGEMENT

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# Conflicts of Interest

The presenters have no conflicts of interest to disclose

# Objectives

- Describe application of **CDC guidelines**, Minnesota Department of Health **Public Health Interventions Model**, and **RE-AIM** program evaluation framework to teach BSN students about planning, preparing, implementing, and evaluating a secondary prevention program to reduce population risks
- Discuss benefits of using CDC guidelines and RE-AIM framework to develop students' population health perspectives and professional leadership and practice roles
- Share program **lessons learned** and **key success factors**



## Key Stakeholders

- U.S. Department of Health and Human Services
- Texas Department of State Health Services
- Local Health Department
- Public schools
- Target populations
- UIW School of Nursing
- Primary care team



# Desired Outcomes

Reduce population risks & injuries

Expedite identification of elevated blood lead levels

Effectively access evaluation & treatment

Efficiently access home consultation & modifications

Foster comprehensive & structured learning experiences

- Intra-professional leadership & teamwork
- Program management (equipment & supplies)
- Trans & inter-professional teamwork
- Direct client care

# Inputs & Learning Benefits

- U.S. Preventive Services Task Force (2019) recommendations
  - *Capillary blood testing for first screening*
  - Minimally invasive, promotes participation & compliance
- State and federal policies
  - *Medicaid-eligible at 12 and 24 months*
  - *Easier to demonstrate accountability*
- CDC guidelines for vaccination clinic (2015)
  - *Designate roles, communication channels, cross-train, client flow/crowd control, resource management, surge capacity*
  - *Guidance hastens & standardizes program development*

## Inputs & Learning Benefits (cont.)

- Minnesota Department of Health (2001) Public Health Interventions Model
  - *Screening, outreach, referral, collaboration, advocacy, education, case finding*
  - *Illustrates interventions are inter-related & synergistic, key RN roles*
- Glasgow, Vogt, and Boles'(1999) RE-AIM evaluation framework
  - *Reach, effectiveness, adoption, implementation, evaluation*
  - *Multi-dimensional focus promotes comprehensive evaluation*

# Key Milestones



Collaborated lead screening contract - San Antonio Head Start & University of the Incarnate Word



Consulted health department to educate faculty; established policies and documentation forms with Head Start partner



Developed nursing students' KSA competency checklists related to project management and mass screening roles



Trained nursing students 5<sup>th</sup> semester program leadership, 2<sup>nd</sup> semester nursing students (surge capacity)



Selected and applied RE-AIM framework to evaluate program outcomes



# RE-AIM



Used with permission from L. Christianson,  
Cummings Institute for Graduate Studies, 2019.

# RE-AIM Measures Selected



Reach	Effectiveness	Adoption	Implementation	Maintenance
<p>% of children who met lead screening criteria</p> <p>% children screened</p>	<p>% children identified with lead levels &gt; 5</p> <p>% of Medicaid-eligible children who received lead screening on or before 2<sup>nd</sup> birthday (HEDIS)</p>	<p># of Head Start schools that offer lead screening on campus rather than send out</p> <p># of UIW students who completed orientation</p> <p>APRN clinic to provide urgent lab services</p> <p>Suggestions for improvements</p>	<p>Total costs: equipment/supplies</p> <p>Cost per child</p> <p>Profit gains</p> <p>Compliance with calibration/controls policy</p> <p># referrals: primary care manager, Green &amp; Healthy Homes</p>	<p># UIW faculty assigned to program</p> <p># of RN volunteers assigned to program</p> <p># of RN hires assigned to program</p> <p>Trained student workforce</p>



# Students' Gains

- SWOT analyses: exercise reflective practice skills
- Epidemiological activities
  - *Case finding*
  - *Preventing Type 1 and 2 errors*
  - *Calculating reach and effectiveness metric rates*
- Population health management
  - *Who: vulnerable populations*
  - *What: social determinants*
  - *Where: population is located*
  - *When: proactive*
  - *Why: risk management*
  - *How: evidence based outreach strategies*
- Coordination intra and inter-team structures and processes
  - *Roles and responsibilities*
  - *Coordination and communications*
  - *Quality assurance and improvement*





# Effectiveness

## ■ Positives:

- **Quality**
- **Cost** & time efficiencies – free labor
- **Access** to tertiary prevention impacted - lead results  $>5.0$   $\mu\text{g}/\text{dL}$  referred to PCP
- *Future opportunities: home visit*

## ■ Challenges:

- *Education & health priorities*
- *Return trips for “non-cooperatives”*

## Slide 12

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**HD3** Instead of APRN run clinic - DNP with FNP program synergy  
instead visionary leader - community based primary care curriculum  
Hook, Linda D., 5/17/2019

# Lessons Learned



Cultivate	partnerships - opportunities to multiply community impacts
Anticipate	students' refresher training needs
Give	responsibilities, students progress from being task to program-oriented
Apply	simulation teaching strategies to promote confidence and competence



# Implementation Success Factors

- Nurse managed Clinic
  - *Visionary leadership*
  - Medicaid certified
  - CLIA waiver
  - MD oversight
- Logic model (i.e., inputs, assumptions, goals, objectives, outcomes, outputs)
- National guidelines
- Theoretical framework (RE-AIM)
- Health department consultant (train the trainer)
- Partnership policies to promote compliance
- Lesson plans & competency checklists to promote training consistencies



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