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A Collaborative Model for Addressing a Lead Crisis Affecting a City's Children

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Introduction: The Partners in Health Lead Screening Project is a nursing led collaboration brought together to address the lead crisis among the children of a major city that is 1st in childhood poverty, 2nd in overall poverty, and 3rd in the percentage of children identified with elevated Blood Lead Levels (BLLs). To address this problem, a year long coalition building process was undertaken under the leadership of a School of Nursing. The individuals and institutions brought together included the city Department of Public Health, the Office of the Mayor, the city School District and the MetroHealth hospital system. Over the process of a year, this coalition developed a collaborative model, The Partners in Health to address the lead crisis in the city.

Building the Collaboration: An early decision in the process was which entities or institutions were essential to be included. The following rationales were developed for each institution included:

- **School of Nursing** provided the leadership for the project, identifying the prospective partners, leading the development of the model, obtaining funding from the Elizabeth Severance Prentiss Foundation and directing the implementation and continuation of the project.
- **City Department of Public Health** was essential as the institution designated by the state Department of Health to address the lead problem. The agency was hampered by a lack of financial resources and inadequate staffing but still brought together an important combination of expertise, experience and authority.
- **Office of the Mayor** was essential to bring together city agencies, resources and authority to engage the city broadly.
- **City School District** essential as the institution that served the majority of the city's children. The School District has over 35,000 students in 102 buildings including children in Pre-K through 12th grade and provided the greatest access to children and their families. The District also has a strong department of Nursing and Health to serve as direct liaisons to the schools, children and families.
- **MetroHealth Hospital System** was also identified as an essential partner. This system serves 70% of the city population, and through their School Health Program are actively engaged in health outreach to the school population.

This group met bi-weekly or monthly to develop the model, identify lines of communication and authority, and to establish roles, relationships and procedures.

Collaborative Model: The project is designed to screen Pre-K and Kindergarten children ages approximately 3-6. This age group was chosen because this is a time of vulnerability due to rapid brain growth, a time when children are still engaged in hand to mouth activity and otherwise exposed to environmental lead. The model developed, the "Lead Advocacy Model" has three phases. **Phase One** is an active community education and outreach component. This phase is designed to educate the community about lead and its effects and to motivate parents, families and community members to

participate in bringing children to be screened. Activities in this phase include attending school and community meetings to meet and talk with families, door knocking and distribution of lead related materials, presentations at schools, materials sent home with children and personal telephone calls. **Phase Two** is the initial finger stick screening held in the schools, and subsequent follow up of all children with high lead levels to obtain a confirmatory venous sample. The project goal is to screen at least 80% of all eligible children in each school. **Phase Three** is the follow up of all families of children with confirmed high BLLs. The follow up is completed by a Navigation Team consisting of three people with at least one community member and one health professional graduate student. The Navigation Teams educate, advocate, assess and refer the families to needed resources including healthcare and home remediation if necessary. All services are free to families.

Workforce: The work of the screening and follow up processes of the project are done with undergraduate and graduate health care students including nursing, physician's assistants, medical students and others. In each program, participation in the project is built into the curriculum. Project participation includes interprofessional educational experiences (IPE) and the opportunity to engage in community based healthcare addressing a significant public health problem. All students are trained prior to participation. Between 150 and 250 students are trained each year by project staff.

Discussion and Summary: This collaborative model has been fully implemented. All partners are fully engaged, procedures and training protocols have been implemented evaluated and revised. The work of the project is ongoing. Education, screening and follow up are continuing as attention is focused on the process of building sustainability and

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References:

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Abstract Summary:

This collaborative project, led by a SON, brings together a city health department, mayor's office, school district and hospital system to address the lead crisis impacting the city's children. Health professional schools in the area have included their students' participation in the project as part of their curricula.

Content Outline:

- I. Introduction
 - A. Identifying the Problem
 - B. Scientific Basis for the Project
- II. Building a Collaboration: Bringing a City together
 - A. Roles of Main Collaborators
 - B. Identification of Grassroots Collaborators
 - C. Role of Community Members
 - D. Process of Building the Team
- II. Model of Collaboration
 - A. Community Education
 - B. Initial Screening
 - C. Family Follow up
- III. Inclusion of Students as Workforce
 - A. Opportunity for Significant Community Experience
 - B. Opportunity for Interprofessional Education

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Author Summary: Dr. Lotas participated in this study as a committee member. She will not be presenting at the conference. Dr. Lotas has over three decades of nursing research. She has published research in nursing education, behaviors and nursing curriculum.