



# Evidence in Action

## *A K20 Center Research Brief*

### **Future MEDIC - Medical Student-Led Healthcare Career Exploration Program for Underserved Middle School Students**

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#### **Introduction**

The authors highlight persistent disparities in healthcare access and representation, particularly among underrepresented minorities (URMs) and low-income populations. Pittsburgh's Hill District, a historically Black neighborhood, exemplifies these challenges, with high poverty rates and limited access to healthcare resources. The Future MEDIC program was developed in response to these disparities, aiming to inspire middle school students—especially those from underserved backgrounds—to explore healthcare careers. The program is grounded in community-based research (CBR) principles and emphasizes interprofessional collaboration, hands-on learning, and gender equity in healthcare.

#### **Methodology**

##### **Research Design:**

The study is a program evaluation of the 2022–2023 iteration of Future MEDIC, implemented over five weeks during regular school hours. The curriculum was co-developed by medical students, faculty, community leaders, and educators, and emphasized active, hands-on learning.

##### **Sample:**

The program was delivered to 26 eighth-grade students at University Preparatory School (UPrep) in Pittsburgh's Hill District. Pre- and post-surveys were completed by 23 and 18 students, respectively.

##### **Data Analysis:**

Quantitative data from Likert-scale surveys were analyzed using the Mann-Whitney U test and Wilcoxon rank-sum tests. Qualitative data were collected through open-ended survey responses and informal classroom discussions.



## Results

Students responded positively to the program's content and structure, particularly the hands-on activities such as physical exams, simulations, and field trips. Key findings include:

- A significant increase in enjoyment of learning about the human body ( $p = 0.01$ ).
- A surprising decrease in interest in pursuing healthcare careers ( $p = 0.03$ ), possibly due to the perceived length and difficulty of training.
- Students reported feeling supported by their community but less confident in having the necessary resources (e.g., money, tutoring) to pursue healthcare careers.
- Gender equity perceptions improved, especially among boys, though not significantly.
- Students expressed interest in learning more about topics like surgery, CPR, women's health, and sports medicine.

Despite the decline in stated career interest, the program succeeded in engaging students and broadening their understanding of healthcare professions.

## Application into Practice

To replicate Future MEDIC in other schools, consider the following steps:

1. **Community Collaboration:** Partner with local universities, healthcare professionals, and community organizations to co-design the curriculum.
2. **Curriculum Design:**
  - Focus on interprofessional healthcare roles (e.g., nursing, pharmacy, dentistry).
  - Include hands-on, interactive activities and field trips.
  - Incorporate gender equity and representation in instructor selection.
3. **Implementation:**
  - Integrate the program into regular school hours to ensure full participation.
  - Use small group formats with consistent facilitators.
  - Provide incentives (e.g., snacks, raffles) to encourage engagement.
4. **Assessment:**
  - Use pre- and post-surveys to measure changes in knowledge, interest, and perceptions.
  - Collect qualitative feedback to refine future iterations.
5. **Sustainability:**
  - Establish long-term partnerships with educational institutions.

## Work Cited

Sharp, S., Mehta, M., Weger, R., Omenyi, C., Bui, T., & Rebitch, C. (2023). Future MEDIC - Medical student-led healthcare career exploration program for underserved middle school students. *Journal of Community Engagement and Scholarship*, 16(1).