



# Public Health 3.0: Application to Trinidad and Tobago Public Health System

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## Abstract

The purpose of the paper is to highlight the application of the United States novel Public Health 3.0 to an international public health system. Public health 3.0 was developed as a call for action in a building block format that starts with local public health. The sole purpose of the 3.0 model is to bring public health into the 21st century, with the overarching aim of meeting the challenges of systematic public health issues. This article took the components of the proposed Public Health 3.0 model and applied it to the current landscape of the public health system in the Caribbean Island of Trinidad and Tobago. The limitation of the 3.0 model is quite simple and can be phrased as a question "Are developing countries ready to adopt the 3.0 model?". There is a very limited scope on the infrastructure and governance of the public health system in Trinidad and Tobago, hence making the 3.0 model a bit more advanced and a stretch for the current system. With the current research and information available of the public health system in Trinidad and Tobago, the Public Health 3.0 model can only be applied in a hypothetical manner. Future research can focus on investigating the type of public health system in Trinidad and Tobago to precisely assess if the Public Health 3.0 model is a good fit for their public health system.

**Keywords:** Public health 3.0; Trinidad and Tobago; Chief health strategist; Caribbean

## Introduction

### Overview of diversity

Public health 3.0 (PH 3.0) has been named the innovative strategy to take public health into the future [1]. These strategies should be adopted by local, state, and federal public health systems to ensure the progression of health improvement. Significant gaps exist in service delivery and community health across the United States. The statistics show that Americans have shorter lifespans, and fare worse in many health indicators, including obesity and diabetes, adolescent pregnancy, drug abuse related mortality, vaccination rates, injuries, suicides, and homicides.

Disparities have persisted over the centuries despite the United States spending nearly 30 trillion dollars a year in healthcare costs and advancements made in the public health field. PH 3.0 allows for a broad based approach to alleviate these disparities. It forces local public health to take a collaborative approach, taking into consideration non-traditional community partners, and through assuming the role of a Chief Health Strategist in communities. It empowers local governmental public health to take a leading and prominent role in the communities. PH 3.0 was designed to be implemented in the United States. As such, there is a bit of a challenge for remodeling and replicating PH 3.0 in developing countries that may not be as advanced. The purpose of this article is to attempt to apply the novel PH 3.0 to a public health system outside of the United States and specifically in Trinidad and Tobago (TnT).

### Chief Health Strategist

The Chief Health Strategist (CHS) plays a key role in Public Health 3.0. The CHS has the responsibility of leading their community to positive health outcomes through health promotion and partnerships with traditional and non-traditional community partners. This ensures that the community addressing normative and perceived needs is comprised and represented by a wide range of sectors. In addition, the role

of the CHS is to support any initiatives or community based coalitions who are involved in the program planning process to improve community health. However, the CHS does not work alone and in fact, may be an entire organization as opposed to one person. The CHS must enlist and entrust other leadership roles to community representatives to help carry out the mission and vision of the health improvement plans. As a CHS it is important to develop and apply knowledge to bridge competency gaps and lead multi sector health improvements. This new concept of a CHS within Public Health 3.0 allows a shift from organizational thinking to a more community focused process.

For example, a CHS in Trinidad and Tobago may recognize the need to focus on diabetes prevention and self-management in a specific city of needs such as Port of Spain. The CHS will create a task force filled with community leaders and members who have been known to be partners with interest in diabetes but also non-traditional partners who can contribute to the health goal of the community. This task force should develop a framework from evidence based information for program implementation with the CHS fulfilling the role of the lead community health professional, guiding their community health promotion efforts in partnership with healthcare clinicians and leaders in widely diverse sectors. An example of the necessary leadership shift and the CHS as the local public health driving force is described in more detail in the next section. The Impact of Diabetes Nurse Case Management on Hemoglobin A1C (HgbA1c) and Self Efficacy of Patients with Type 2 Diabetes: A Systematic Review.

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## Leadership Style of Chief Health Strategist

As the chief health strategist, it is imperative that a leadership style is adopted. Based on the authors experience in local public health, the leadership style does not only depend on the individual but also the environment and culture of the specific health department. Whoever assumes the role of the CHS, having the characteristics and traits associated with democratic or coaching style leadership would appear to be most successful in the PH 3.0 model.

In local public health where the CHS is the pillar and driving force of the community's health, their ability to interact and make decision on various levels needs to be exemplified. As a diplomatic leader, the CHS would focus on social and behavior change, using tactics to avoid being stagnant and team conflict. Democratic leaders allow their environment to thrive from team oriented or supporting leadership roles. To some extent the CHS can also develop skills from being an opportunistic leader. Not in the way we have seen opportunistic people in the past but taking a spin on this and using new and upcoming relationships and situations to aid the growth of local public health. For example, as an opportunistic leader, the CHS would use innovative business or marketing trends to promote local public health or any programs in the community, often using several local, popular, persons or places in the community. Doing this, highlights that the CHS understands the needs and functions of being a strategist. Using strategic marketing is a skill that has deep roots in understanding the environment, culture, and frameworks that have been developed in the past. Being a strategist also allows for the development of new vision, mission, goals and objectives for programming. A leader with a strategist style will often say things like "It's important to help develop the organization as a whole, as well as the growth and individual achievements of my direct reports".

Direct translation of leadership styles to Trinidad and Tobago health systems may be easier now than historical attempts, as new leadership in the health departments have been receptive to adopt new behaviors aimed at delivering high quality service [2]. The departments in Trinidad and Tobago conducted an evaluation of their leadership and management as a response to an economic disturbance in the local health systems. Citing leadership styles as an area of improvement, they created new standards for upper and middle management to follow. The change in leadership styles showed a positive correlation with the economic upturn for the health departments.

## PH 3.0: A Resource for Emerging Health Issues

Historically, infectious diseases were seen as the major contributors to death and disease. However, in the 21st century, there has been a shift to non-communicable diseases being the major cause of morbidity and mortality. In the country Trinidad and Tobago, infectious diseases and non-communicable diseases have an equal effect on the population. It can be foreseen however, that non-communicable disease will take over like many of the developed countries around the world.

In Trinidad and Tobago, lifestyle diseases such as diabetes and heart disease are the new and emerging health issues. It is simple to say that these can be fixed on an individual level, having the person change dietary habits and increase exercise intensity. However, it is more realistic to understand lifestyle diseases from a population level. PH 3.0 can be used as a tool to navigate the prevention and control of diabetes and heart disease. The CHS should gather a group of professionals and interested partners to carry out this mission.

For stakeholders, it is very important to carry out a stakeholder

analysis and many partners in Trinidad may not have the power to enforce change, but they may be very interested in the mission and vision. Nontraditional partners are also very important in a diverse population. Some nontraditional partners could include grocery stores, churches, banks, carnival bands, and spa owners. Currently these companies have initiatives that seek to reduce the community impact on lifestyle disease. For example, the carnival band Tribe has over 1 million members that take part in their events annually and they have a calendar of community events such as 5 k walk runs, outdoor dance events, and world health day celebrations. Partners like these have high influence and power to attract and get the affected communities to participate.

The use of culturally sensitive programs and the PH 3.0 approach will increase successful efforts. The goal is to reduce lifestyle disease by providing the communities with tools to engage in self-management and prevention behaviors with the CHS leading the mission and vision.

## Public Health Partners

PH 3.0 was created to transform communities through leadership and collaboration. Traditional and non-traditional partners are very important to driving this new face of public health forward. The local health department is the pillar of PH 3.0 and these local health departments have shared similar traditional partners that share the goal of improving their community's health. A few of these traditional partners include but are not limited to hospitals, private practice, government agencies, large businesses, schools and higher education, and local media.

For example, in Port of Spain the health department traditional partners consist of the community school boards, major healthcare facilities, Port of Spain large businesses such as automotive and groceries, local community organization like YMCA and Balisier House, private health and vision. They are also governed through the Port of Spain City Corporation Board of Directors and City Hall Collaborates.

While traditional partners have been sufficient in the past, PH 3.0 aims at cross sectional collaboration, ensuring that a wider range of sectors have a seat at the table and contribute to their community's health. In the spirit of innovation and sustainability, using the National Association of County and City Health Officials MAPP (Mobilizing of Action Through Planning & Partnerships) process, non-traditional partners can be integrated at all levels of public health. It is very important at the program level to think outside the box and the gain the trust of the community.

For example, including faith based stakeholders in Port of Spain, Trinidad and Tobago, would possibly increase the participation of African Americans or even East Indians as they have been seen to trust their faith leaders more than their healthcare providers [3]. Incorporating novel partners can also increase the funding allocated to local public health and programming which is a recommendation of Public Health 3.0. With expanded and multi sector partnerships, there will be a difference in program development and delivery from public health in the past. Many of the services delivered by LHD will be performed in the community, allowing for a wider range of people to access their services in an environment that they are comfortable in. For example, nutritious foods can be distributed at local churches, service stations and transportation hubs where can community members already visit and have built relationships. The services that are not being utilized in the LHD building should take a drastic approach to diversify the type of programs and location. Here is a brief list of resources and knowledge

nontraditional partners can provide to improve local public health:

- Diverse and additional infrastructure to reach a wider range of the community.
- Knowledge of expansive funding models to be adopted for local public health.
- Knowledge of diverse community members and deliver healthcare and public health programming understanding and being sensitive to a diverse population.
- Leverage of networking and funding opportunities afforded to non-profit organizations
- Availability of comprehensive health impact assessments through collaboration with the transportation and housing sectors.

### Legislative policy issue

A legislative policy suggested by working groups in top public health and health education organizations is directly related to research based on chronic/ lifestyle disease prevention in childhood and aging populations. An example of this policy would be “Every K-12 School should have a nutrition program.” A randomized control trial showed that school based nutrition programs was successful in reducing the BMI of obese participants and changed healthy diet attitudes [4]. The SNAP education and evaluation study found that children participating in nutrition education programs increased their daily fruit and vegetable consumption at home and at school. This study also looked at the impact of low income seniors and showed similar results to that of school children.

In Trinidad and Tobago, this policy is already in place. The program is called the School Feeding Program and it began in 1976. This was not without its challenges. The task force that implemented this program did not consist of any public health personnel or CHS, hence there were glaring programmatic issues. The challenges faced were implementation, funding, and inadequate facilities. Currently, this School Feeding Program provides two meals per day to low income students at all public and government assisted schools. The current challenges of the program are updated administrative systems, record keeping, inadequate facilities and high food waste. There is still no indication of a public health official or CHS being a part of the planning or implementation of this legislative policy and program, and this may be the reason there are still the same challenges from 1976. There needs to be a revamp of the legislation and a trickling effect into the program for it to truly be effective for the population it is meant to serve.

### Discussion

The CHS would prioritize the creating of a political action committee comprising of local and congressional members who are passionate about school based nutrition issues [5]. There are state resources that can be accessed to support the committee. The CHS may not be the expert at teaching committee members to go through the legislative procedures. Hence, outsourcing the expert to teach the committee members advocacy and lobbying skills is important. A key function of this committee would be to create sustainable funding or advocate for

state funding for all schools to have a nutrition program. One potential legislative policy action that could be taken is the removal or revamping of block grants. Due to the manner in which block grants are created, it gives less money, fewer meals, and childhood hunger does not improve at a suitable rate and there are no nutrition standards that accompany them. Congress has been blocking grant funding for school meals and other nutrition programs. The removal of these grants will lead to the removal of these nutrition programs. Research shows that hungry children struggle with academic performance, attendance and behavior at school.

### Conclusion

The PH 3.0 model will address many gaps in the delivery of health education and health services in the United States. In Trinidad and Tobago there is still no clear picture of how this will work as there is very limited scope on the infrastructure and governance of the public health system in Trinidad and Tobago, hence making the PH 3.0 model a bit more advanced for the current system. With the current research and information available of the public health system in Trinidad and Tobago, the PH 3.0 model can only be applied in a hypothetical manner. Future research can focus on investigating the type of public health system in Trinidad and Tobago to precisely assess if the PH 3.0 model is a good fit for their public health system.

### Data Availability Statement

No data was generated or analyzed for this article.

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