Public Health Capstone Projects   School of Public Health

Summer 8-11-2020

Healthcare for All: Achieving Universal Health Coverage (UHC) through the Strengthening of Health Systems

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ABSTRACT

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By

Diene Kaba

June 15, 2020

The Sustainable Development Goal (SDGs) number three aims to achieve good health and well-being. In order to achieve SDG3, WHO has identified many health targets including the achievement of Universal Healthcare Coverage (UHC). National Public Health Institutes (NPHIs) serve as the focal point for a country's public health activities. Without an NPHI, public health activities can be fragmented with responsibility spread across multiple entities. This can lead to inefficiency, a lack of leadership and accountability, and ultimately, a reduced impact of programs. NPHI coordination of public health functions strengthens health systems and public health infrastructure overall. The goal of this capstone is to discuss the link between NPHIs, health system strengthening efforts and UHC, and specifically, how having a strong NPHI contributes to UHC.

Healthcare for All: Achieving Universal Health Coverage (UHC) through the Strengthening of Health Systems

by

Diene Kaba

B.A., THE OHIO STATE UNIVERSITY

A Capstone Submitted to the Graduate Faculty
of Georgia State University in Partial Fulfillment
of the
Requirements for the Degree

MASTER OF PUBLIC HEALTH

ATLANTA, GEORGIA
30303

APPROVAL PAGE

Healthcare for All: Achieving Universal Health Coverage (UHC) through the Strengthening of
Health Systems.

by

Diene Kaba

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Acknowledgements

I would like to express my immense gratitude to the following individuals as I could not have made it this far without you all:

- My amazing committee: Dr. McCool and Kristy, thank you so much for your patience, understanding, and guidance throughout the entire process.
- My family and friends: Thank you from the bottom of my heart for your unwavering support. I love you all so much!
- My peers: I am beyond glad that I was able to share this journey with you all, and you inspire me to continue reaching for the stars.

In loving memory of my father, I dedicate this final project to you. You encouraged and inspired so many to obtain an education. I hope I have made you proud!

Lastly, I would like to thank God for watching over me as I embarked and completed this remarkable journey.

Author's Statement Page

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<u>Diene Kaba</u>
Signature of Author

Table of Contents

Background and Introduction

According to the World Health Organization (WHO), "Half of the world's population does not have access to the health care they need." In order to address this concern, in September 2019, the United Nations General Assembly gathered many stakeholders and held a meeting to discuss Universal Health Coverage (UHC). The goal of the meeting was to obtain solutions on how world leaders can help address this issue. The WHO defines UHC as "all people have access to the health care they need, when and where they need it, without facing financial hardship." UHC also aims to address the following three objectives: all citizens should have access to healthcare services regardless of their ability to pay, the quality of health services should be good enough for the individuals receiving care; and the cost of services should not put the population at risk of financial impairment. (WHO)

UHC can be traced back to the 1978 Alma-Ata Declaration. The Declaration was a major breakthrough in the field of Public Health. (WHO, 2017) The document provides a strong focus on primary care. Primary care is a vital component of a health system. Additionally, it serves as the first step of reference for individuals as it is the first step of the health care process (WHO). Based on the Declaration, it can be assumed that achieving UHC lies in the development of health systems and a focus on public health. Most developed countries such as Canada and the United Kingdom, have achieved UHC (Chung, 2017, para. 3&9). National Health Insurance (NHI) in Canada provides universal coverage through a government run insurance program. Citizens are responsible for contributing to this insurance in the form of tax payments. While the government provides communal insurance however, the practitioners providing care practice privately. The government provides funding for medical services such as surgeries and other

medical procedures. Insurance providers are private, but the government sets the prices for these institutions (Chung, 2017, para. 9). In the United Kingdom, the model of care used is the Beveridge model. Developed by Sir William Beveridge in 1948, this model provides free healthcare services to the population through government funded health care. The providers in this system are government employees. Taxpayers are responsible for funding the coverage. Every individual has access to coverage as long as they are a citizen of the United Kingdom.

In contrast, many developing countries have been unable to achieve UHC. A study that analyzed 47 countries in the WHO's African Region highlighted major gaps in the healthcare systems on the African Continent (Sambo et. Al., 7). The following are potential reasons why countries have been unable to achieve UHC: 1. A very low density of healthcare professionals, 2. Insufficient number of healthcare facilities for the populations, 3. Lack in the availability of health technologies with many countries ill-equipped to perform diagnostic testing, 4. Limited financial protection for those seeking health services and have high out of pocket expenses. A focus on healthcare systems predominantly on primary and public health can help some of these countries achieve UHC. (Sambo et al., 20). A review of the literature has shown that these two systems are the key to achieving UHC in low- and middle-income countries.

In the text, Health Workforce Contributions to Health System Development: A Platform for Universal Health Coverage, the authors share a case study of Thailand. Thailand is a developing country that has been able to achieve UHC through health systems strengthening. The country focused on the reduction of the financial burden of healthcare services on the population. The government introduced a two phased approach. In 1975, the first approach was the implementation of a tax system that provides free care (outpatient and inpatient) to the underserved population. The system is referred to as the "Low-Income Card Scheme"

(Tangcharoensathien et al., 875). The second mechanism, the establishment of a "social health insurance" mechanism in 1991. The insurance is funded through payroll taxes and employees working in for-profit sector. Furthermore, a mechanism was created to increase access to healthcare services, primarily in the rural population. The government created district hospitals that were comprised of additional centers. The district and the centers were able to increase access to even the unattainable areas (Tangcharoensathien et al., 877). The restructuring of the healthcare system in Thailand was a very complex journey. However, their focus on primary care through their two phased approach led to their achievement of UHC. While there is research available on countries that have achieved UHC, literature is still limited on the overlap of UHC, Health Systems Strengthening and NPHIs.

Primary healthcare is healthcare that should be delivered to everyone in a society regardless of their ability to pay. (White, 105) Additionally, an entire population should have access to these services. In his article, Franklin White states that primary healthcare should include input from the community and discuss different aspects relating to health such as maternal & child health, chronic illnesses and their causes, proper nutrition, and much more. Primary healthcare also includes healthy living discussions such as the promotion of health and preventing diseases. Public health on the other end relates to the health status of an entire population (White, 105). In addition to clinical care professionals, public health includes many stakeholders including: physicians and clinical staff, politicians, educators, community members and other individuals that may make an impact.

The complexity of UHC requires multiple actors in public health and the health care system to lead to successful implementation. One of these stakeholders are National Public Health Institutes (NPHIs) which are organizations that are responsible for housing all public

health functions under one roof in a country. In the United States, the CDC serves as the country's NPHI. The public health functions may include: disease surveillance, emergency preparedness and outbreak response, disease-specific control programs, public health workforce development, occupational and environmental health, and public health research (CDC NPHI, 2019). While all of the public health functions are important, disease surveillance, emergency preparedness and outbreak response and workforce development are very essential as they overlap with UHC initiatives.

Disease surveillance is largely comprised of data collection (Africa CDC Framework for Development of National Public Health Institutes in Africa, 2019). Data collection leads to the establishment of disease indicators. Indicators, in turn, helps inform policies and recommendations that can lead to high-level system changes. Equally as important, emergency preparedness and outbreak response efforts strengthen a country against a public health threat. If the country's response system is properly structured and prepared, lives can be saved and information can also be obtained for future response efforts that help to mitigate the next hazard. Lastly, workforce development is crucial as the public health workforce is the individuals on the frontlines responding to outbreak responses. This workforce serves as the foundation to responding to emergencies and outbreaks, and they must be well trained, equipped and educated.

The WHO's General Programme of Work 2019 – 2023 includes a measurement strategy to ensure country progress towards the Sustainable Development Goals (SDG). This strategy includes the Triple billion targets for one billion additional people benefitting from UHC, one billion (people protected from health emergencies, and one billion additional people with

improved health and well-being. The UHC billion target is based on SDG 3.8.1 coverage of essential health services which is a compilation of 14 tracer indicators (WHO, 2020).

As previously mentioned, public health workforce development is very important in NPHI work and is also one of the 14 tracer indicators. Africa CDC, which serves as the NPHI for the African continent, developed a framework for establishing an NPHI. The framework includes all of the core functions of an NPHI. Africa CDC mentions the following focus areas for this particular core function: "Identify public health workforce needs, and develop programs, such as field epidemiology training programs (FETPs), or work with universities and other partners to address them, link with schools at various levels to ensure development of a pipeline of future public health professionals and articulate core competencies for public health positions at all levels of the public health system (Africa CDC Framework for Development of National Public Health Institutes in Africa, 2019)." The NPHI relies heavily on the FETP program, which is an applied epidemiology training program and modeled off of CDC's Epidemic Intelligence Service. FETP is a joint collaboration between a country's Ministry of Health or NPHI and CDC. Three training levels exist: Frontline, Intermediate and Advanced training at different time intervals and expertise. Upon graduating from the program, they represent the workforce development portion of NPHIs (CDC FETP, 2020).

The FETP Program is essential to the advancement of UHC. The creation of the Liberia NPHI is an example of why programs such as FETP are important. The National Public Health Institute of Liberia (NPHIL) was founded in 2015 after the 2014 Ebola epidemic. The program provides the intermediate and frontline trainings to their residents (TEPHINET, 2020). FETP graduates have been able to contribute to many outbreaks that have occurred such as Ebola in 2015, meningitis in 2017/2018 and the COVID-19 outbreaks (TEPHINET, 2020). Their quick

responses have led to timely discovery of diseases, disease monitoring and "contact tracing"

that have helped curbed the devastation of these outbreaks (TEPHINET, 2020). Countries are

overburdened and do not have the adequate number of physicians to cover the population as

highlighted by the data provided by Sambo and Kiriga. FETP residents can serve as public health

residents who can help alleviate some of the burden on physicians and shift the focus on

population health. The investigation of how NPHIs best support public health functions and

integrate into the overall health care system of a country can provide important insight into

steps that these countries can take to achieve UHC. Further, NPHIs can be instrumental in the

implementation and ongoing, robust support of UHC. This project will investigate the NPHI

framework and how NPHIs can contribute to health systems strengthening, in order to create a

'best practices' guide for NPHIs to create organizational strategies that will incorporate UHC

initiatives within their organizations.

Methodology

This section discusses the methodology of National Public Health Institutes efforts to

advance the progress of Universal Health Coverage (UHC) through health systems

strengthening. The CDC NPHI team in partnership with the International Association of National

Public Health Institutes (IANPHI) will conduct a qualitative study. The qualitative analysis will

consist of primary data collection through semi-structured interviews with selected NPHI

directors from select LMICs using a standardized interviewer guide and questionnaire

developed by the CDC NPHI team and IANPHI. The responses will be synthesized to identify

current and future roles of NPHIs in UHC. The final outcome of the interviews would lead to a

Best Practice Document that will be available to all NPHIs. The Best Practice document will help

NPHIs develop strategies/policies on the integration and development of UHC in their respective countries.

Interviewer Guide and Questionnaire

The CDC NPHI team and IANPHI representatives held a discussion to establish the reason for the interviews and the final outcome. The group developed a draft interview guide and questionnaire that is included in the appendix of this document. The interview guide remains in a draft format. The interview guide was developed through an iterative process within the CDC NPHI Team and sharing a potential list of questions with IANPHI representatives. The initial questions were developed by a member of the NPHI team using current knowledge of UHC and information learned from the NPHI Team. The initial questionnaire began with four general questions regarding UHC and NPHI. The review and feedback of the questions occurred over a period of eight weeks. The NPHI Team and IANPHI review group consisted of seven individuals who have expertise in NPHI development (CDC NPHI Director and Public Health Analysts), Health Systems Strengthening (IANPHI Director and Director of Programs) and UHC knowledge obtained from longstanding research (Senior Advisor for Public Health Practice).

The most recent draft of the document includes six questions. The six questions are divided among four different categories consisting of: Introduction, NPHIs Public Health Functions and Linkages, Challenges and Conclusion. Probes were included for some of the questions to help facilitate the interview process and aid the interviewer in obtaining the most accurate responses to the questions. The introduction section of the questionnaire was designed to set the tone for the interview and obtain the current status of UHC in a given NPHI's country. The NPHI Public Health Functions and Linkages category refers to the relationship between an NPHI and their country's UHC plan. In some countries, NPHIs have

more of a robust relationship with their governments. Some NPHIs are housed within the Ministry of Health and in other countries, the NPHI may be a stand-alone institution that works with the Ministry of Health. Countries housed within their Ministry of Health may have more input regarding their country's UHC implementation. Lastly, the challenges and conclusion categories inquire if the interviewee can anticipate any challenges with the implementation of UHC. Furthermore, the question will inquire the interviewer's solution to an NPHI overcoming these challenges.

Target Audience

The interviewer guide and questionnaire will be targeted for interviews held with NPHI Directors in selected countries (LMICs). Directors hold the most accurate information regarding the operation of their NPHIs. Most are responsible for reporting to the government and Ministers of Health. Directors will be the primary target and associate directors will be secondary targets. The CDC NPHI team and IANPHI will coordinate initial conversations with selected countries. The interviewers will first be contacted to inquire if they are available to participate in the qualitative study. If the response is yes, the next step is to coordinate interviews. Priority will be given to the interviewer's schedule.

Country Selection and Conducting Interview

Interviews will be conducted in countries based on geographic location in each of WHO's regions and those that have a strong working relationship with the US CDC NPHI Team. Countries with more established NPHIs, such as Zambia, Mozambique, Nigeria, Colombia, etc., will be given priority. There will be a minimum of 6-8 countries in order to obtain enough information for the qualitative analysis. After the countries have been selected, the interview guide will be piloted. Phone interviews will be scheduled by the team to pilot with selected

NPHI Directors. Upon their return, they can provide feedback and edits to the group. The changes will be made to the current interview guide. Upon making the necessary edits, the group will invite the NPHI Directors to interview. The team will begin conducting interviews upon the confirmation of countries and directors.

The interview will be conducted by the NPHI team. The original plan was to conduct phone/video conference interviews with the NPHI Directors. However, phone interviews may be difficult to schedule. In the event that phone interviews are able to be scheduled, the interviews will be recorded for use by the NPHI team. The interviewee will give permission for the interview to be recorded. Alternatively, the group discussed the possibility of interviews distributed via email in the form of surveys. The biggest challenge with the survey is that the group cannot guarantee that the information received was completed by an NPHI director. This method of interviewing may skew the qualitative analysis results.

Analysis and Results

Upon the completion of all the interviews, the information will be analyzed. The first step of the analysis will consist of performing member checks in order to ensure the accuracy of the information obtained by the interviewers. The interviewers will send an email to the interviewees. The message will summarize the information captured during the interview and request that the interviewee review the information to confirm the accuracy of the information. Next, using NVIVO, team member/members will transcribe the interviews if done via phone. Alternatively, if the interviews were done through surveys, the responses will all be collected and synthesized with NVIVO as well. The information will be analyzed by using thematic analysis. The thematic analysis will identify macro and micro themes within the data.

The results of the study will be provided to the full CDC NPHI team and IANPHI as a summary of findings. The outcome would indicate that the chosen country NPHIs are actively taking steps to help achieve UHC. After all the information has been compiled, CDC NPHI and IANPHI will publish a best practice document on UHC and NPHIs. The best practice document will be publicly available on IANPHI's website as a resource. The results will also be shared with the interviewees. The best practice document will serve as a guide to help NPHIs facilitate or implement steps to achieve UHC in their given countries.

Limitations

The study will yield important information that can showcase how NPHIs can help contribute to the achievement of UHC. The interviews will provide insight and understanding of the current UHC landscape in these countries. While the best practice document will be quite useful, the information obtained may be a bit skewed. One potential limitation is if the interviews are completed via surveys. The target audience for the interview is NPHI Directors. If the surveys are distributed via email, there is a possibility that the surveys will not be completed by an NPHI director. The Director in most instances is the direct liaison with the Ministry of Health. As previously mentioned, some NPHIs are not located within the Ministry. However, in these instances, the institutions continue to work closely together. If another staff member other than the director answers the questions some high-level information may not be obtained.

A second limitation to the study can be the number of countries selected to conduct the interviews. The original interviews will take place with six to eight countries. The number of countries is a small sample size and the group may not be able to obtain enough information to inform the best practice document. A larger group of countries could provide more information

on the landscape of UHC. Furthermore, the countries will not be selected randomly. Selection bias could present itself in the results of the study. NPHIs differ and some are stronger establishment than others. The stronger organizations could present information that is already expected by the group.

Recommendations and Conclusion

Recommendations cannot be provided due to the inability of conducting interviews and gathering the necessary data to complete the best practice document. UHC can be very achievable should countries around the world strengthen public health and primary healthcare systems. As the first line of access to health for many populations, a strong primary health system can help alleviate financial burden on country citizens. Disease prevention, family planning, immunization and other health related efforts can all be addressed with proper primary healthcare. Franklin White mentions in his article that primary healthcare can properly be established and effective using the socio-ecological model (White, 107).

The same health related efforts addressed by primary healthcare overlap with public health systems. In terms of public health systems, NPHIs are the first solution. NPHIs house the public health functions in a given country. NPHIs focus on different public health functions based on the country. While the role of NPHIs have not been fully established within the goals of UHC, this study can help to guide the framework and best practices for how NPHIs can support the implementation and function of UHC. This will help to position NPHIs as fundamental resources in successful UHC integration.

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UHC and NPHI – Structured Interview Guide - DRAFT

INTRODUCTION & UHC PRELIMINARY DISCUSSION

CDC and IANPHI are seeking to identify ways in which NPHIs can support Universal Health Coverage. We value your insight and would like to hear about your experience in this area. Your answers to the following questions will be used to inform the development of a Best Practice that will be available as a resource for other NPHIs.

The WHO defines universal health coverage as "ensuring that all people have access to needed health services (including prevention, promotion, treatment, rehabilitation and palliation) of sufficient quality to be effective while also ensuring that the use of these services does not expose the user the financial hardship." Achieving universal health coverage has been identified by the World Health Organization (WHO) as a strategic priority. This priority also aligns with the Sustainable Development Goals set forth by the United Nations (target 3.8.)[2]
This discussion will take about 20-30 minutes to complete.

1. Where is your country in planning and implementing Universal Health Coverage (UHC)?
   - **SKIP TO PROBE 2 IF THE ANSWER IS "WE HAVEN'T STARTED"**

   - **Probe 1:** Please tell me more about how UHC will be implemented?
     a. Is there a target timeline for implementation?
     b. What is the NPHI's role in UHC?
     c. Please share examples of how the NPHI is currently supporting or has the capacity to support the implementation of UHC in your country?

   - **Probe 2: Describe current planning for UHC.**
     a. Which organizations are involved in these conversations?
     b. Is the NPHI involved in these conversations?
     c. Is there a target timeline to start implementation?

NPHI PUBLIC HEALTH FUNCTIONS AND LINKAGES

Next, I would like to discuss the linkages between NPHIs and UHC. As you may know, an NPHI's role for UHC implementation will differ based on the country. Some NPHIs may have more robust linkages to their country's UHC plan than others and have a direct role. For example, discussion in one country includes the NPHI serving as a lead for their country's UHC community health strengthening objective.

2. How is the topic of linkages between the NPHI and Universal Health Coverage being addressed during conversations about UHC?[1]

3. The World Health Organization (WHO) has indicators for Universal Health Coverage. The four indicators we will discuss have potential overlap with public health functions. Does your country's NPHI have a role in implementing activities that directly or indirectly support these indicators? We'll go through them one by one. **(*Note to interviewer – have a printed copy of the 4 indicators below so they can read and respond*)**

   - <u>Coverage</u> of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)
   - <u>Access</u> to essential health services (including promotion, prevention, curative, rehabilitative and palliative care) with a focus on primary health care, measured with a UHC index
   - The density of human resources for health defined as the number of health workers per 1000 population in the given national and/or subnational area
   - International Health regulations (IHR2005) capacity and health emergency preparedness

4. What are the facilitators of UHC implementation?

CHALLENGES

5. What challenges do you foresee with the implementation of UHC?
   - How can the NPHI help overcome them?

CONCLUSION

6. Is there anything else you would like to add?

Thank you for taking the time to answer these questions. We are grateful for your input.

1. https://www.who.int/healthsystems/universal_health_coverage/en/
2. https://www.who.int/health-topics/universal-health-coverage#tab=tab_1

National Public Health Institute Factsheet

DIVISION OF GLOBAL HEALTH PROTECTION

NATIONAL PUBLIC HEALTH INSTITUTES
Building Better Public Health Systems

BY THE NUMBERS

20
More than 20 countries/entities are currently supported by CDC to develop or strengthen national public health institutes

100
More than 100 members from nearly 100 countries in the International Association of National Public Health Institutes

5B
5 billion people across five continents live in countries with national public health institutes

Taking responsibility for PUBLIC HEALTH

{ NPHIs provide leadership and coordination for public health at the national level. }

National governments take responsibility for keeping people healthy and addressing public health challenges. Many countries create national public health institutes (NPHIs) to carry out these roles. A strong NPHI enables countries to:

- Generate and share knowledge, data, and evidence
- Assess and track people's health
- Improve delivery of public health services
- Use limited funds more efficiently
- Prevent, detect, and respond to public health threats
- Conduct research to inform policies and programs
- Have a strong national voice for public health issues

Public health leaders from around the world share ideas at the IANPHI annual meeting.

CREATING AND STRENGTHENING CONNECTIONS

In most cases, NPHIs sit within the government or work in close association. The U.S. version of a national public health institute is the CDC in Atlanta. Many other countries have similar organizations.

CDC's NPHI program partners with the International Association of National Public Health Institutes (IANPHI), a global network of public health institutes with a presence across nearly every continent. When countries request

CDC's assistance, our program engages with national partners to:

- Map existing public health systems
- Take a close look at available resources
- Provide technical guidance and support
- Develop strategic and operational plans
- Prioritize public health activities and operations

For more information, visit
https://www.cdc.gov/globalhealth/healthprotection

Centers for Disease Control and Prevention
Center for Global Health

Field Epidemiology Training Program (FETP) Fact Sheet

Disease Detectives in Action

"Our collaboration with CDC and FETP has been indispensable in tracing and stopping disease outbreaks."
— *James Swan, Former U.S. Ambassador to Democratic Republic of the Congo*

An FETP resident investigates a suspected foodborne illness outbreak among 35 monks at a Buddhist temple in Cambodia.

Building a Global Health Workforce

A proven approach. In 1980, CDC established the first Field Epidemiology Training Program (FETP) to train field epidemiologists in developing countries. Graduates of these programs have the skills to collect, analyze, and interpret disease information, using evidence to take quick action and save lives.

Learning by doing. Program residents spend 20-25 percent of their time in the classroom and 75-80 percent in the field. By training disease detectives in their own countries, FETP helps meet the global health security goal of establishing a trained public health workforce.

Meeting country needs. FETP is modeled after CDC's successful Epidemic Intelligence Service (EIS) program, and individual countries and ministries of health own the program. Programs are tailored to meet the needs of each country, recognizing differences in disease burdens, cultures, priorities, partners, capacities, and public health systems.

Boots on the Ground

FETP residents and graduates are our "boots on the ground" in the ongoing battle against infectious diseases, public health emergencies, and chronic diseases. FETP graduates have responded to health threats including:

- Anthrax in East Africa
- Ebola virus disease in West Africa
- MERS-CoV transmission in the Middle East, South Korea, and the Philippines
- Polio in Pakistan and Nigeria
- Acute encephalitis in India
- Hurricane recovery in Haiti

Learn more about how we protect health and save lives around the world.

By The Numbers

More than 80 countries have participated in CDC-supported FETPs

More than 4,000 investigations of outbreaks and public health emergencies since 2005[i]

More than 18,000 FETP graduates around the world trained in disease detection and response since 1982