HEALTH COMMUNICATION CAPACITY COLLABORATIVE

HC3 Landscaping Report on Zika Communication and Coordination: Honduras, March 14-18, 2016

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USAID FROM THE AMERICAN PEOPLE

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ACRONYMS

CCP	Johns Hopkins Center for Communication Programs
CDC	Centers for Disease Control and Prevention
COHEP	Consejo Hondureño de la Empresa Privada
GBS	Guillain-Barre Syndrome
HC3	Health Communication Capacity Collaborative
JICA	Japan International Cooperation Agency
KAP	Knowledge, Attitudes, Practice
MOH	Ministry of Health
NGO	Non-Governmental Organizations
PAHO	Pan American Health Organization
PSA	Public Service Announcement
SBCC	Social and behavior change communication
TSA	Environmental Health Technician (Tecnicos Salud Ambiental)
UN	United Nations
UNAH	National Autonomous University of Honduras
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Emergency Fund
USAID	United States Agency for International Development
WHO	World Health Organization

I. INTRODUCTION

Zika is a communicable disease transmitted by the *Aedes aegypti* species of mosquito, which is native to Latin and Central American countries and also transmits the dengue and chikungunya viruses. The female *Aedes* mosquito bites mostly during the day and breeds in "clean" or standing water often found in containers in and around people's homes. While the Zika virus is not a new virus, the current outbreak is the largest ever reported and continues to spread rapidly throughout the Americas. Eighty percent of people infected with Zika are asymptomatic. The remaining 20 percent experience mild symptoms in the form of a fever, rash, joint pain and conjunctivitis (pinkeye).

The Zika outbreak has also coincided with a rise in reported cases of Guillain-Barre syndrome (GBS) and microcephaly, two severe neurological conditions. Based on research to date, the scientific consensus is that Zika virus is a cause of microcephaly and GBS[1]. No cure or vaccine for Zika currently exists, so preventative measures focus on vector control and awareness of risk and risk reduction for at-risk populations.

In response to a United States Agency for International Development (USAID) request, the Health Communication Capacity Collaborative (HC3) – based at the Johns Hopkins Center for Communication Programs (CCP) – conducted a social and behavior change communication (SBCC) landscape exercise for Zika in Honduras March 14 - 18, 2016. Due to the urgent nature of Zika, HC3 moved quickly to conduct this landscaping visit before the Easter holidays.

This was not a lengthy situational analysis, but rather an agile observation visit to quickly take the pulse of the Zika situation and the local response. The team of three SBCC professionals who conducted the landscaping have expertise in mosquito-borne diseases, *Aedes* vector control, risk communication, strategy design and implementation of a range of behavior change communication, as well as experience in the regional Central American context, family planning/reproductive health and journalism.

Over the course of one week, the HC3 team met stakeholders from the public, non-governmental organizations (NGOs) and private sectors. These interviews were not exhaustive of every group involved in Zika control, but rather representative of the main stakeholders. Despite the rapid pace of the visit, a picture of the Zika situation emerged. This report is the culmination of that landscaping exercise in Honduras. Below are the observations and impressions of the HC3 team regarding Honduras, as well as concrete recommendations for USAID to consider as it formulates its strategy to support Honduras in its efforts to fight Zika.

[1] World Health Organization. (2016). *Zika Virus, Microcephaly and Guillain-Barré Syndrome.* http://apps.who.int/iris/bitstream/10665/204961/1/zikasitrep_7Apr2016_eng.pdf?ua=1.

II. BACKGROUND

COUNTRY BACKGROUND

Honduras is a Central American country with a population of approximately 8 million (World Bank, 2014). It is one of the poorest countries in the Western Hemisphere, with more than two-thirds of the population living in poverty and half suffering from extreme poverty (World Bank, 2012). It is bordered by Guatemala to the west, El Salvador to the southwest, Nicaragua to the northeast, the Pacific Ocean to the south and the Caribbean Sea to the north.

Water supply and sanitation varies greatly between urban and rural areas. The temperature varies from tropical (lowlands) to temperate (mountain region) and the country has suffered a severe drought for several years. Many areas of the metropolitan Tegucigalpa area are "ruled" by gangs. San Pedro Sula, the second largest city in Honduras, is also prone to drought and civil unrest, with one of the highest murder rates worldwide due to drug trafficking. In 2014, the Honduras National Health Department was decentralized. As a result of this process, technical guidelines are developed at the national level, but vector control is conducted at the regional level. These factors all have implications for vector control.

Due to the associated link between Zika and microcephaly and GBS, there has been considerable global concern regarding family planning use and access during this outbreak. Family planning use in Honduras is high, with a contraceptive prevalence rate (CPR) with modern methods of approximately 64 percent. However, there are access challenges for specific populations, including youth and women in areas of high violence and gangs. Family planning is provided free in government clinics and is also available through NGOs, pharmacies and the private sector. Since 2009 the Honduras Ministry of Health (MOH) has experienced serious financial constraints to purchase contraceptives, and in the last years United Nations Population Fund (UNFPA) has supplied the country with donations of contraceptives. This process reduces corruption but takes more time, does not always meet the demand and has led to stock outs. Abortion and emergency contraception are not legal.

OVERVIEW OF DENGUE, CHIKUNGUNYA AND ZIKA

Dengue and Chikungunya

To understand the landscape of the Zika outbreak in the region, it is important to understand it in the context of the ongoing and historical public health response to dengue and chikungunya. These three diseases are not only transmitted by the same vector, but they are seen as one public health crisis, which together cause significant morbidity and loss of productivity and resources to the region. In the same respect, the global public health interest and response to the current Zika outbreak is seen as not only a necessity but as an opportunity to make strides in beating back all of the *Aedes*-borne diseases.

Dengue fever outbreaks have been a perennial problem in the region for a long time, with increasing or decreasing cases of dengue and dengue hemorrhagic fever from year to year, due

to multiple serotypes of the virus in circulation, varying degrees of pre-existing immunity in the population and ineffective vector control. Only a portion of the clinically reported cases are confirmed in the lab because the number of suspected cases exceeds the diagnostic capacity of any lab. Many of the clinical symptoms and signs, when present, overlap with other febrile illnesses, resulting in over-reporting by the public and clinicians alike, while a high number of asymptomatic and mild cases results in under-reporting.

Vector control authorities and the general population report a seasonal increase of all types of mosquitoes during and right after a period of rain due to water accumulating in natural crevices and discarded containers, such as scrap metal of varying size, cans, jars and tires left out in the open. On the other hand, both authorities and the population report more mosquitoes in the water storage containers within the home during the drier periods due to the shortage of other habitats available to *Aedes* at such times. In any case, multiple dengue serotypes, persistence of water storage practices throughout the year and ineffective vector control allows dengue to remain endemic in Honduras and for the emergence of other *Aedes*-borne illness like chikungunya and Zika

Honduras has a long history of combating the *Aedes* mosquito and has had numerous dengue and chikungunya outbreaks during its history, including a devastating dengue hemorrhagic outbreak that hit San Pedro Sula in 2013 and a severe chikungunya outbreak in 2014-2015. Chikungunya paints a very similar picture to dengue, but with the following important differences:

1. Lack of pre-existing immunity, therefore a very large number of cases.
2. Causes chronic joint pain that persists long after the febrile period, increasing perceived severity for the population compared to classical dengue, but the lack of hemorrhagic or shock syndrome decreases the perceived severity for the public health establishment.
3. Circulation of a single serotype, granting life-long immunity and delineating chikungunya outbreaks more clearly over the perennial endemic dengue picture.

Zika's acute signs and symptoms are similar to classical dengue and chikungunya with two important differences:

1. More conjunctivitis (pinkeye)
2. Less joint pain

A rash may occur with both dengue and Zika.

Zika Epidemic in Honduras

In Honduras, the first case of Zika related to the current outbreak was reported in December 2015. Zika cases increased drastically in January 2016. On February 2, 2016, President Hernandez declared a national health emergency. More than half of the Zika cases were reportedly coming from San Pedro Sula and relatively few from Tegucigalpa. Since in-country laboratory testing was limited due to a shortage of the necessary reagents, Zika testing was

being done in the U.S., resulting in a delay in reporting. At the time of the landscaping visit there were only two confirmed Zika cases. According to landscaping interviews, 15 Guillain-Barre syndrome (GBS) cases occurred up to this period but none were attributed to Zika. One microcephaly case was reported but was negative for Zika.

Zika Risk Perception

At the time of the landscaping visit in March 2016, not many suspected Zika cases were being announced (they were still referencing the February figures of 3,037 in meetings) and the general population did not yet perceive themselves as being at high risk. Although some of the individuals HC3 interviewed suspected they may have had Zika, recent dengue and chikungunya experiences seemed much more prominent in people's minds.

The service providers HC3 met with reported they had not yet seen any pregnant women with Zika, and although their clients were curious about the virus, they were not overly concerned. At the time of the visit, some myths and misconceptions about Zika were circulating. For example, some people think that Zika is a type of HIV/AIDS virus, as they have heard it can be transmitted sexually or by exposure to body fluids. Clients are also confused regarding the mosquito's vector function, as well as immunity. For example, public confusion remains around why, if the same mosquito transmits Zika, dengue and chikungunya, one does not get sick with all three viruses at the same time, and whether or not a previous infection with dengue provides immunity against Zika.

III. NATIONAL ZIKA RESPONSE

Strategic Command against Zika

The national Zika response, known as the "Strategic Command against Zika" is being coordinated by the Vice Minister of Health of Honduras, Dr. Francis Contreras, in coordination with the Office of the President and the MOH. The President has been very visible in the campaign to combat Zika and is featured in a series of TV and radio public service announcements (PSAs) calling for intensified clean up campaigns. According to the Vice Minister, the Strategic Command includes a network of allies, such as the Pan American Health Organization (PAHO), United Nations Children's Emergency Fund (UNICEF), Red Cross and others. The collaboration structure and role of each organization was not fully evident at the time of the landscaping visit. Since then, however, HC3 understands that a series of meetings have taken place to better coordinate the stakeholders.

The main actions being called for by the Strategic Command include:

- **Community-based vector control** through clean up campaigns and cleaning of large water storage containers ("pilas") and barrels, via increased outreach efforts by MOH Environmental Health Technicians (Tecnicos Salud Ambiental or TSAs) stationed in every health region, and through local-level collaboration with community boards ("patronatos"), churches, NGOs and community volunteers.
- **Raising public awareness** through a communication campaign from the President's office, with the slogan: "Si no hay zancudo, no hay Zika" (If there's no mosquito, there's no Zika).
- **Social mobilization education** through the schools and a program to engage students in reporting on (and encouraging cleaning of) breeding sites in their homes.
- **Fumigation by TSAs** with adulticide where suspected Zika cases are reported, generalized use of larvicides and biological control using *Bacillus thuringiensis israelensis* (BTI) in water storage containers.

The Vice Minister also mentioned that, as part of the effort to raise public awareness, the Strategic Command has a Communication Strategy which is directed by the Office of the President. The HC3 team was not able to see a copy of this strategy, but were informed that it includes the development of communication materials for radio, television and print, as well as PSAs made by the president. A few agencies showed the team a set of materials that reportedly came from this strategy and were being either replicated and disseminated or used as a basis for developing additional resources for local use. HC3 was also informed that PSAs about Zika were included on electricity and water bills, and the Central Command was about to launch a campaign called "Summer without Zika," with an emphasis on breeding site reduction. During Easter Holy Week, the MOH planned to have a breeding site clean-up campaign at beaches and other popular places where large numbers of people were expected to gather.

MOH Vector Control Program

The Zika response at all levels was not standalone, but rather was seen as an opportunity to promote ongoing and enhanced mosquito control for dengue, chikungunya and Zika. HC3 met with a group of five MOH TSA's from different health centers. They have been intensifying house-to-house visits in recent years to address the dengue and chikungunya outbreaks in each of their regions and have seen promising results, citing a reduction in positive infestation indices from 70 percent to 4 percent. The TSAs who met with HC3 were very proud of their collaboration with churches, private and business sectors, and even gang leaders. These relationships enabled them to gain trust and access to all neighborhoods, even those that are often inaccessible due to security issues. They talked about integrating vector control into other outreach efforts as well, such as house-to-house visits for canine rabies vaccination.

The TSAs saw house visits as the primary vector control method. They discussed efforts to promote attitude changes around ownership and self-sufficiency, so that people understand they need to take an active role in ridding their homes of breeding sites and not passively wait for fumigation. They explained that they limit adulticide fumigation to homes around a suspected case, although they do spray schools monthly. They also discussed other creative measures they take, such as puncturing old tires to drain them of water and working with private cemetery owners to overturn flower pots left out during the rainy season. The primary barrier to their work is being unable to gain access to houses for home visits and fumigation (due to both working households and security problems), as well as a shortage of insecticides, equipment and funding for transportation and salaries.

MOH Social Mobilization Program

Beyond the President's Zika communication campaign, the MOH Department of Normalization is in charge of social mobilization efforts at the community level. They have paid community health workers contracted by the government called Health Guides ("Guías de Salud"). The Department of Normalization trains the Health Guides who, in collaboration with community boards (patronatos), churches and other community groups conduct home visits.

The Department of Normalization has an ongoing campaign about lifestyle changes, which promotes healthy behaviors such as exercise, healthy foods and water, sanitation and hygiene (WASH). This campaign includes household cleanliness and breeding site clean-up. One of the project activities involves the placement of a poster in each home that lists all of the proper *Aedes* control behaviors and a traffic light symbol with green, yellow and red. The Health Guides subsequently mark the colors according to household compliance with the recommended behaviors. The expectation is that marking the houses publicly will encourage people to get "good marks" and perform the various breeding site control behaviors, such as cleaning water containers. They have piloted this activity in a few communities with great anecdotal success, although they do not yet have evaluation data from the regional government. They are also working on a project at the school level where they use an integrated environmental health manual titled *Entornos Saludables*. The manual has six components, one of which is on pests and pesticides and includes *Aedes aegypti* control. This project also works with schools on an activity where they give students an inspection sheet to

use in their homes to check for proper cleaning of breeding sites. The intended outcome of this project is that students will encourage their parents to clean up their yards, but will also build lifelong habits for *Aedes* control as they become adults.

Zika Coordination

The government's Zika initiative has been quick to get off the ground and has pushed Zika to the forefront of media attention. However, at the time of the landscaping visit, there was some confusion and concern on behalf of other vector control and potential Zika implementing partners and donors that the government effort was not adequately guiding all stakeholders and including other groups in decision-making and strategy design. This was particularly felt in terms of Zika SBCC and messaging for mobilization and education campaigns. For this reason, a number of institutions have started developing their own strategies and interventions, albeit still waiting on a consolidated effort from the government.

UN Agencies: UNICEF, PAHO and UNFPA

The United Nations (UN) agencies were calling for a unified and technically sound, evidence-based communication effort in Honduras, and drafted a Communication Plan they presented to the landscaping team in PowerPoint format. UNICEF took the lead in drafting this plan and hoped to collect other stakeholder's input and present the plan to the MOH at the end of March 2016. The plan included mass media (radio, TV and mobile phones), community mobilization through local leadership (such as community boards, churches, and Commites de Emergencia Locales or local emergency committees), Health Guides and school-based education.

The UNICEF communication plan was comprehensive, but needed strengthening in certain areas, some of which were already under discussion during the landscaping visit. The feasibility and effectiveness of some of the recommended behaviors needs to be further explored and additional messaging directed at TSAs, health workers, journalists, pregnant women and women of child-bearing age should be included. The timeline for the plan was six months (for development, implementation and evaluation), but UNICEF expressed they felt it would be better suited for a longer implementation period.

UNFPA efforts in Honduras are implemented through two mechanisms: (1) with the Japan International Cooperation Agency (JICA) who has donated $5 million to Honduras to promote health communication on family planning for women of all age groups of reproductive age with special focus on adolescents, capacity building of health providers, and distribution of contraceptives; and (2) via a UNFPA donation of $200 million to work with UNICEF, PAHO and Red Cross International to purchase and promote the female condom for pregnancy prevention among adolescents in multiple countries in the "Dry Corridor" – Guatemala, El Salvador, Honduras, and Nicaragua – for five years.

The Red Cross

The Red Cross was also preparing a national response plan against Zika that included outreach and communication efforts in the 52 municipalities where they work, taking advantage of 2,500

Red Cross volunteers, including youth groups, first-aid volunteers, fundraisers, and corporate and professional volunteers. The Red Cross distributed a cleaning kit during the 2012-2013 dengue epidemic that included a brush, bleach and Ace (a detergent) that they plan to deliver to about 6,000 homes for the Zika epidemic. In terms of vector control, they meet weekly with the Municipal Emergency Committee in the Central District to divide up the municipality to make home visits and destroy breeding sites. They too explained that they have credibility in and access to dangerous areas of gang-controlled cities where others cannot go, especially in San Pedro Sula, Tegucigalpa and Cortez. They also contribute to fuel and insecticide costs for fumigation efforts.

Overall, the Red Cross suggested that any Zika communication messages need to step away from being fear based and empower the communities to become conscious of the problem and work together to control breeding sites. They also noted the difference regarding who is "in charge" in this epidemic: in the case of natural disasters, it is clear that Commision Permamenente de Contingencias (COPECO) is in charge, but with Zika, the MOH has been in charge. In previous health epidemics they worked in collaboration with municipalities and PAHO, but this time they see the need for something more structured.

Consejo Hondureño de la Empresa Privada (COHEP)

COHEP is an association of 70 private sector companies. They were invited to a meeting with the Zika Strategic Command and asked for support in printing and disseminating materials. COHEP also developed a PSA and solicited donations from their members for Zika, including diesel fuel (for fumigation efforts). COHEP does not give cash to the government, only resource donations. They would welcome further collaboration on resource mobilization for Zika (such as for printing and donating meeting space), but would prefer going through a third party that has more stringent accountability systems.

National Autonomous University of Honduras (UNAH)

The National Autonomous University of Honduras (UNAH) has also undertaken their own initiative to organize an interdisciplinary Zika committee with experts from public health, medicine, communication, education and the university media (TV station). The UNAH efforts were mostly directed to their campuses, and included highly trained epidemiologists, virologists, entomologists and social scientists eager to contribute their services and expertise at the national level. The UNAH committee is in charge of implementing a communication strategy they developed that targets the student population across all their campuses (an area that houses 100,000+ individuals and has the potential to be a large breeding site for mosquitoes). The University's educational campaign was being developed at the time of meeting with HC3. It included video spots for the university television station, informational pamphlets and social network messages. Many of the messages promoted general clean-up, while some focused more on the direct destruction of mosquito eggs on the walls of pilas using bleach. None gave clear instructions on breeding site reduction methods or priorities. A student group is also conducting periodic sample larval surveys in UNAH surroundings and at other universities. Through these surveys they identified San Pedro Sula University as a particularly large breeding site. When asked if an assessment of behavior change or an evaluation of the

vector control efforts existed, UNAH showed HC3 an evaluation survey it is currently using in one region, which included a few basic knowledge, attitudes and practice (KAP) questions.

The UNAH laboratory is in charge of processing laboratory samples for the country and has achieved a certain level of expertise within the global community. It collaborates closely with the U.S. Naval Medical Research Unit (NAMRU) in Lima on febrile diseases and works with the U.S. Centers for Disease Control and Prevention (CDC) in Atlanta to establish correct laboratory norms. They have been working with PAHO and the University of Texas to confirm suspected Zika cases and etiology of reported GBS and microcephaly cases, but since they have no direct Zika funds, all of this work is being done through discretionary funding. The country has not been doing dengue or chikungunya diagnostics for two years now due to the overwhelming number of cases and lack of resources.

UNAH is in contact with the Strategic Command but it too recognized a lack of coordination and potential for duplication of efforts. It was not aware of a comprehensive Zika response strategy document. UNAH has also been assisting the national response by organizing and training physician graduates doing their post-graduate social service in the neurological manifestations of Zika. It also discussed the need for better training in entomology and presented some ideas it has been researching for training, for which funding is needed.

Japan International Cooperation Agency (JICA)

The Japan International Cooperation Agency (JICA) works on the ground in 12 municipalities through their own volunteer programs and in collaboration with the local Health Guides. JICA was waiting to hear more details about who was coordinating the national Zika communication efforts and how they could participate. It saw a need to prepare its own Zika educational materials, which it is planning to incorporate into existing outreach efforts. JICA was in touch with the Department of Normalization, which helped them align their pamphlet with that of the MOH.

JICA also just approved a $200 million emergency donation for UNICEF and UNFPA. UNICEF plans on using the funds to develop a school-based Zika prevention program and UNFPA would like to promote the female condom during the Zika outbreak. JICA was forthright about the need for better coordination in the Zika communication efforts and would be very interested in working with USAID should USAID assume such a role.

IV. CHALLENGES

National Campaign Challenges

Due in part to the national coordination and transparency of the outbreak being slow to emerge, HC3 was told by many that a certain public apathy and even mistrust exists about the current outbreak. One noted perception is that it could be politically motivated, as elections are nearing and the Zika outbreak occurred at a time when other political tensions – including the choice of a Supreme Court justice and conflicts with civil society aggravated by the murder of the activist Bertha Caceres – would have made a distraction convenient for the government. Among SBCC and vector professionals, it was acknowledged that the Zika Strategic Command has a high political profile which helps to position the topic, but there was apprehension that it was not technically rigorous enough to produce behavior change. There was also unease that the high political profile generates "communication noise" that might impede the important Zika public health messages, due to resistance to the government in important sectors of Honduran society. The University team expressed concern that even among their peers, some doubt the existence of Zika.

Lack of Harmonized and Technically Strong Messages

A number of parties were apprehensive that the messages being disseminated were not technically strong and may be confusing people with mixed messages. For example, the campaign messages show many images of fumigation, which the TSAs feel is counterproductive as it creates apathy when they show up to inspect for household clean-up campaigns and the people insist they should be spraying instead. In actuality, the government is only spraying when a case has been detected. Others pointed out that many of the materials being disseminated talk about the importance of general household "cleanliness" versus specific calls to action about how to rid homes of breeding sites. Some of the materials shown had illustrations of supposed breeding sites but not all the pictures listed were appropriate (for example, photos of puddles or of raking leaves).

Vector Control Challenges

Recommended container cleaning behaviors are labor intensive and need to be repeated frequently which makes them difficult to sustain. In Honduras, the preferred method for promotion by the government is to clean pilas (large wash basins) with "Untadita," a combination of bleach and detergent applied directly to the mosquito eggs along the inside walls of water containers. Although vector control staff usually understand how to conduct effective household cleaning, when these skills are passed from mentor trainers to new trainers to community volunteers to household members, the skills to perform the cleaning correctly is at risk of becoming lost or misrepresented. Meanwhile, the behaviors easiest to carry out are those for general garbage clean-up, which tend to also be a misguided focus of PSAs and general print materials.

Fumigation for *Aedes* control also has inherent challenges. The TSAs explained that some people welcome the fumigators, as they feel they would benefit from the spraying, but others

do not wish to allow them into their homes, or are not home when the sprayers arrive. The TSAs mentioned that some people do not like the nebulizer as they think they are just spraying water if there is no appearance of smoke or it does not smell like insecticide. The TSAs observed a contradiction between spraying and/or applying larvicide one week and recommending the Untadita the following week. In addition, there are resource challenges to vector control, including limitations in staff pay, biological security equipment, uniforms, money to repair their insecticide pumps or even photocopiers to print their surveillance sheets. One TSA mentioned that because their vests are blue, a political color, they are sometimes refused entry to homes because people think they are from a particular political party.

Reproductive Health and Family Planning Challenges

At the time of this landscaping visit, little was happening on the ground with regard to a family planning or reproductive health response to the Zika epidemic. A pronounced spike in GBS/microcephaly was not yet reported and the CDC had not yet announced the scientific consensus linking GBS and microcephaly to Zika. While the providers with whom HC3 met did say that antenatal care clients were asking about Zika, they said that since there was nothing they could do for cases except treat the fever, they tell clients to protect themselves from mosquitoes and go to a doctor if they have a fever. Of the six providers at the meeting, no one had yet seen a suspected case of Zika among their patients. They reported sending about 50 blood samples from febrile patients to the laboratory, but had not yet received results back on any of them. Later that week UNAH mentioned that results had just come in from PAHO about the six pregnant women in country suspected to have Zika to date. Three were positive, one was negative and two were inconclusive.

UNFPA informed HC3 that MOH funds earmarked for contraceptive purchases have increased, which they see as a positive development. The MOH has now also approved the female condom as an option and it is included in their recommendations. UNFPA said a robust contraceptive supply is stored at the central level, but distribution at the periphery is difficult. Contraceptives reach the regional level but are not as fast to reach the primary care level, where they are to be distributed. HC3 learned previously that the Honduran Army was helping with the distribution of contraceptives to try to address this issue. UNFPA would like to improve all family planning access for adolescents and youth because access is much more limited for this group compared to married women. UNFPA mentioned a national effort to offer youth-friendly services inside the clinics and health centers to reduce barriers to adolescent access. In addition, seven clinics and La Asociación Hondureña de Planificación Familiar (Ashonplafa) are trained to perform vasectomies. However, they mentioned a resistance on the part of the doctors who find vasectomies time-consuming and prefer to perform tubal ligations during delivery instead.

UNFPA informed HC3 that they were forming a committee to work closely with the Strategic Command on Zika, especially since the effort complements UNFPA's own initiative to introduce the female condom. However, they voiced concerns around a limited national capacity to deal with a possible upsurge in microcephaly, including limited ultrasound equipment and inadequate training of providers. They explained that there is ultrasound equipment at the

primary care facilities but the general doctors are not trained to use it. The current capacity for GBS testing and treatment is limited, and the capacity to provide newborn support, family support and counseling for positive GBS or microcephaly cases is similarly constricted. To address these concerns, UNFPA had developed a rapid response concept note that offers to cover contraceptive purchase and distribution costs and the training of health providers in ultrasonography.

Infrastructure and Decentralization Challenges

Limited water and/or a deficient distribution system was the primary infrastructure challenge cited, leading to increased water storage, as well as concerns about emptying water storage containers and using water to clean containers to remove larva. In addition, most efforts on the part of householders to protect their stored water are not adequate to stop *Aedes aegypti* from laying its eggs inside these containers. For example, covers used on containers are rarely hermetic. Moreover, partial covering may enhance rather than reduce egg-laying, because it provides protection and shade for this container-adapted mosquito. In addition, stakeholders in Honduras discussed that the lack of waste collection results in garbage discarded from homes/yards sitting in the streets where it often collects rain water.

While Honduras has high technical laboratory capacity and local staff have been trained and certified in the laboratory procedure to test for Zika, there is a shortage of reagents to conduct the tests. This may have had an impact on both the speed at which the epidemic was identified in the country, as well as the regularity in which updated numbers are released to the public. This also affects the ability of service providers to follow-up with confirmed cases, as described above.

Other infrastructure challenges mentioned included limited equipment to support life-threatening GBS (the teaching hospital is in the process of buying 20 respirators, which it was excited about, but knows will not be enough), and a lag time between case identification and vector control notification for perifocal control. The TSAs mentioned a challenge with timely and thorough communication around suspected cases, citing they are often not notified until weeks after a case has been identified, or it is presented to them without a complete address, which further delays follow up.

Lastly, the decentralization of health services was brought up as causing additional challenges during an outbreak such as Zika. For example, the country dissolved their vector control program at the national level due to decentralization, so general funding and staffing issues at the regional level affect everything from the purchase of insecticides to equipment, fuel and staffing for outreach and fumigation. There is also a fear that the decentralization of health services has created a disconnect between the technical guidance (including communication guidance) being produced at the national level and the implementation happening at the regional or local level.

V. RECOMMENDATIONS

Communication Strategy and Partnerships

- It is important that Honduras move quickly to solidify the collaboration and coordination of the multiple stakeholders working to fight Zika. Many players are already working on SBCC for Zika and others are waiting for guidance and leadership from the government, but combined resources and unified messaging will greatly increase the effectiveness and success of the efforts. Developing a national Zika control and prevention communication strategy and a corresponding operational plan to implement that strategy would ensure that all political and technical stakeholders are communicating a unified and technically sound message across the country.

- The Honduran government and Office of the President may want to consider recognizing and endorsing the inter-institutional coordinated body currently being led by UNICEF and jointly develop a short- and long-term plan for collaborated communication efforts. The leadership and collaborated effort should be expanded and include representation from: the MOH (including the Office of the President and the Zika Strategic Command, vector control, surveillance/Epidemiology, the Department of Normalization and service providers, etc.); NGOs and other entities working in SBCC, community mobilization and advocacy (including faith-based organizations and the private sector); university and/or research representatives; and those responsible for family planning promotion, distribution and placement. The process should also include local leaders, who are especially important due to the decentralized health systems. Collaboration among partners should not stop at the strategy design phase but ensure continued coordination, mapping and reporting of activities as efforts progress.

- Identify internal or external technical SBCC support to refine and finalize the Zika Communication Plan and corresponding Zika SBCC Operational Plan. Final documents should include not only specific communication objectives but also: key messaging (including specific "calls to action"); guidance on key audiences, channels and tone (creative briefs); and identification of leadership, responsibilities and distribution of efforts across partners and geographic areas.

- While all parties interviewed were concerned about an inevitable resurgence in Zika cases once the rainy season arrives, at the time of the visit it did not appear that stakeholders were clear regarding long-term planning. This may have changed, but plans should be disseminated as soon as possible for a second wave of Zika and a possible upsurge in microcephaly/GBS cases. Planning should include a focus on:
    - **Resource mobilization and allocation** through and beyond the rainy season
    - **Communication strategy** based on possible scenarios of the epidemic (and according to phases)

- **Vector control strategy** based on possible scenarios of the epidemic (and according to phases)
- **Family planning and reproductive health strategy** based on possible scenarios of the epidemic (and according to phases)
- **Service provider needs and priorities**
- **Microcephaly and GBS management** (patient, newborn and family support and counseling)

- The team met individuals at multiple entities that had sound backgrounds in SBCC and/or social marketing and would be appropriate as leads or partners in the SBCC response. In addition, individual projects have mandates and resources for SBCC interventions that can and should be leveraged. The Department of Normalization has staff with background in SBCC and social marketing and communicators in each of the decentralized parts of the country. The University is well positioned, has prestige and the credibility to be an educational agent and endorse communication messages. JICA has a staff member well versed in SBCC that seems willing and able to collaborate. The Red Cross is moving forward with their own work but is very anxious to be part of a larger collaborative effort. COHEP has a private sector network for message dissemination and resources for sharing, although they emphasized that collaboration via an international entity might be easier on their part.

Formative Research and Monitoring and Evaluation

- Honduras would benefit from rapid qualitative formative research to better understand the perceptions, myths and motivations around Zika, mosquito-borne illnesses, breeding site reduction behaviors and use of family planning during the Zika outbreak, etc. The national effort could capitalize on the UNAH survey being designed by integrating additional KAP questions for monitoring and evaluation purposes, as well as World Health Organization (WHO) guidelines being developed on priority KAP questions and social science research being conducted and collected at the regional level (including such global partners as Population Services International and Anthrologica). The research should include exploration of knowledge, attitudes and perceptions of vector control outreach workers, community mobilizers and family planning providers to better incorporate them as both target audience and disseminators of messages for Zika communication efforts.

- Ensure communication and mobilization activities include monitoring and evaluation that measures not only process indicators (materials produced, houses visited and clients counseled, etc.), but also impact indicators (household mosquito infestation indices and use of family planning, etc.), if at all possible.

Message Fine Tuning and Communication Platforms

- Zika prevention messaging presents an opportunity for wider vector prevention and should focus on reemphasizing the larger *Aedes aegypti* vector control (dengue, chikungunya and Zika) with a "shared responsibility" tone, outlining specific calls to action for breeding site reduction by the family, and motivational messaging to reposition mosquito-borne illnesses as beatable and not acceptable or inevitable. While the national slogan ("Si No Hay Zancudo, No Hay Zika,") includes a call to action to get citizens involved in Zika prevention, it relies heavily on vector control outreach and community mobilization activities ("jornadas") organized by the governments which are insufficient to keep the mosquito population down.

  Messages should not be positioned as "general cleanup" messages. While these are good for overall and long-term health, for the immediate epidemic this confuses recipients about priority actions. Preventative behaviors should focus on the most important larval habitats and campaigns should de-emphasize behaviors directed at unimportant habitats. Monitoring (entomological surveys) and recognition campaigns should be based on this as well (i.e., no prizes for a clean yard, just for containers free of larvae/eggs.)

  Linking Zika to microcephaly and GBS should be done in a way that is empowering, realistic within the local context and not fear based, with an emphasis on family planning access and informed choice and use. More attention should be paid to family planning messages in the Zika context for women and couples who choose to postpone pregnancy. Currently sexual transmission of Zika is not addressed, but this should be integrated into counseling guidelines.

  At the same time, specific messages are needed for pregnant woman to avoid Zika, as well as women and couples who may be thinking about having children in the near future. Some information is available for pregnant women, but personal protection messages can be stepped up and proactively integrated into a range of counseling and outreach opportunities. For confirmed GBS cases, the emphasis should be on how to care for a family member with GBS inside and outside the home.

- Technical support is needed to help identify specific, realistic and effective calls to action to address in national communication strategies. This should include a technical vector control team to assess the available breeding site reduction techniques (e.g., larvicides, Untadita of bleach with and without detergent, alevines (small fish), house-to-house surveillance and jornadas), and to develop recommendations on priority actions for individuals and vector control teams, including recommended larval reduction techniques by container, household and geographic location.

- Audience-specific materials should be based on technically sound and global recommendations. Regional guidance documents could be identified or developed for specific SBCC Zika materials, or generic and adaptable creative briefs/materials developed for country adaptation. These could include:

    - Provider jobs aids (family planning and Zika, sexual transmission, prenatal Zika prevention, microcephaly and GBS prevention and treatment)
    - Outreach workers' *Aedes* breeding site reduction aid
    - Press information packet

- Train vector control field staff and other NGO outreach workers in inter-personal communication, as well as personal prevention of Zika, chikungunya and dengue, recognition of symptoms and health care seeking.

- Further explore all the existing school curricula utilized for Aedes vector control, identify which ones were successful in promoting household participation, promote them nationally and include them in the national strategy.

- Experience in the recent Ebola outbreak and other risk communication issues has demonstrated the importance of good press communication and education. It would be useful to establish an ongoing system to regularly update the press, as well as establish open, transparent communication for questions and timely exchanges.

- Digital platforms can be explored for improving communication and outreach to pregnant women and women of reproductive age via WhatsApp, or along the lines of the txt4baby platform. This would be an opportunity to enable women of reproductive age to access information they need related to pregnancy prevention and family planning in the context of Zika. This falls into the context of the SMART client approach, where interventions empower women to answer the questions they might already have, think about what else they need to make decisions and get access to resources to address their needs (informational and/or family planning services). The platform would need to be promoted, presumably through existing relevant mechanisms.

- Digital platforms can support providers in family planning counseling and Zika prevention during pregnancy. Local WhatsApp groups could be organized for providers with Zika frequently asked questions (FAQs) as a job aid.

Stakeholder Coordination

- Take better advantage of the NGO community that has strong links to peri-urban and rural communities. Many of these NGOs use community participation methodologies that empower communities to be proactive in vector control. Bring on more partners who can widen the reach, such as church networks and the private sector, who benefit from a healthy workforce and play a large role in some countries in the tourist industry.

- Interface with the Council of Ministers of Health of Central America and Dominican Republic (COMISCA) and the health arm of the regional coordinating body, Central American Integration System (SICA), to increase consistency in Zika prevention, especially prevention messages for pregnant women, family planning messages for couples and vector-control messages for families as well as to share lessons learned across the region with substantial cross-border commerce and tourism.

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