

EMERGENCY ZIKV:
RESULTS OF THE CONSULTATION
PROCESS KNOWLEDGE, ATTITUDES
AND PRACTICES (KAP) ON ZIKV
COUNTRY REPORT:
EL SALVADOR

September 2016

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Abbreviations

KAP	knowledge, skills and practice
DN	National Office WV-ELS
DME	Design Monitoring and Evaluation
EHP	Humanitarian Country Team
ELS	El Salvador
GoELS	Government of El Salvador
MS	Ministry of Health of El Salvador
WHO	World Health Organization
ON	National Office
INGO	International non - governmental organization
PAHO	Pan American Health Organization
PDA	Area Development Programs
PPS	Probability proportional to size
SE	Epidemiological week
WV-ELS	World Vision El Salvador
WV	World Vision
Virus ZIKV	ZIKA

BACKGROUND

In May 2015 the first case of ZIKA (ZIKV) virus infection was confirmed in Brazil. In less than nine months the virus spread through 41 countries and territories in Latin America and the Caribbean, infecting more than 1.3 million people. A causal link has now been established between ZIKV and congenital malformations such as microcephaly and Guillain-Barre syndrome; the increase in abnormalities in other organs such as eyes and ears has also been associated with ZIKV ¹. In February 2016 the WHO declared that the emergence of clusters of cases of microcephaly and Guillain-Barre syndrome associated with the ZIKV epidemic constituted an international public health concern, i.e., a situation that should be treated as an emergency. By September 1, 2016, 73 countries and territories have reported the presence of ZIKV transmitted by mosquitoes since 2007 ².

In this context, WVI realized the need for a KAP (knowledge, attitudes and practices) survey related to ZIKV disease. The objective of this survey is to determine the knowledge, beliefs, behaviors and practices of people (adults and adolescents, women and men) on ZIKV, in communities where WV has developed a plan of response to the epidemic, which includes six countries (Brazil, Colombia, El Salvador, Honduras, Guatemala and El Salvador) in Latin America and the Caribbean.

In this report, the results of the KAP survey in El Salvador (ELS) are presented.

According to the Epidemiological Bulletin No. 35, El Salvador has a cumulative total of 7,297 cases, which added to the 3,836 cases in 2015 equals 11,133 cases recorded since the beginning of the outbreak. The current trend is a decrease from Week 25, which at

¹ Final Draft ZIKV Honduras Proposal. 07-2016

² WHO SitRep September 29, 2016.

the moment depicts a low incidence of the disease. The geographical areas of the country with higher Zika disease prevalence are Chalatenango, Cabanas, and Cuscatlán. Population age-groups with higher disease prevalence rates are children under 0-1 years of age (221 per 100,000), followed by 30-39 years of age (196) and 40-49 years of age (173).

SUMMARY

During the last week of August and first of September 2016, World Vision El Salvador (WV-ELS) surveyed 611 residents of twelve communities on their knowledge, attitudes and practices related to ZIKV. This document summarizes the results compared by population groups: adult men, adult women and adolescents. Some of them are:

82%	of male respondents feel vulnerable to ZIKV transmission	48%	of adolescents who responded stated they did not know what Guillain-Barre syndrome was	22%	of respondents expressed that they were most concerned about disabilities among babies caused by ZIKV
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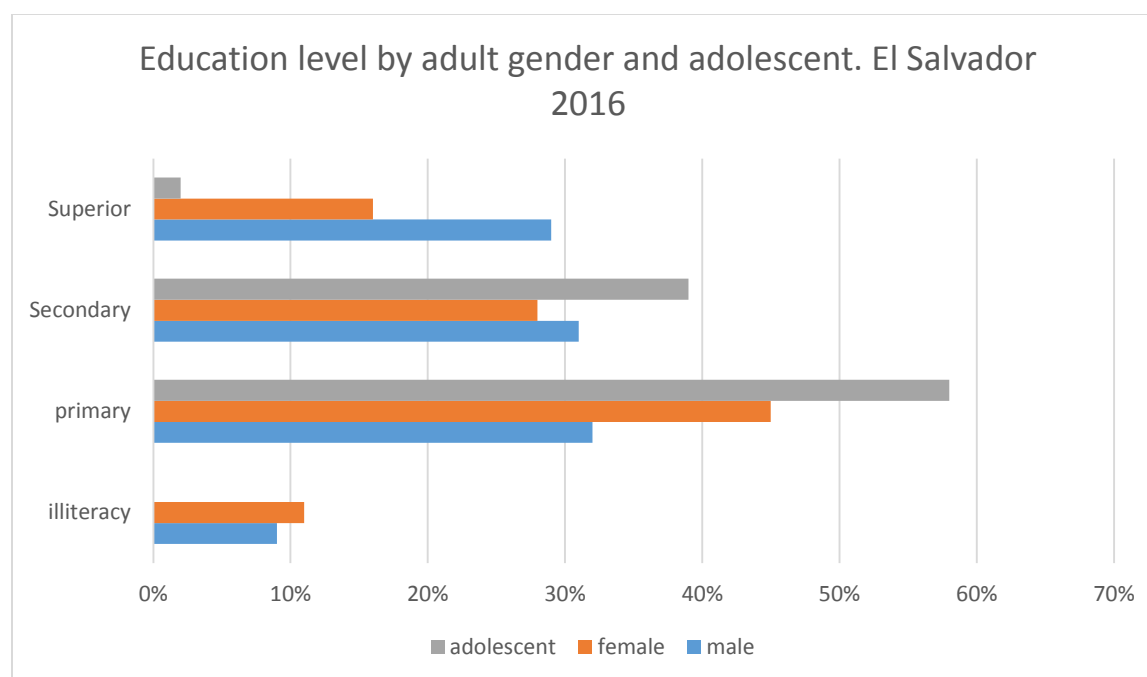
<p><5% of respondents mentioned sexual intercourse, breast milk or blood transfusion as mechanisms of transmission of ZIKV</p>	<p>21% of women expressed that microcephaly is the greatest risk to the fetus/baby of a pregnant woman infected with ZIKV</p>	<p>ZIKV in ELS</p>
Number of interviews:	611	
Without consent:	0	
Effective interviews	611	
Number of households interviewed:	611	
Population groups:		
Adult women interviewed:	205	
Adult men interviewed:	195	
Teenagers interviewed:	211	
Net number of interviews	611	

DEMOGRAPHIC DATA:

EL SALVADOR	MEN		WOMEN		ADOLESCENTS	
TOTAL	195		205		211	
	Rank	Average	Rank	Average	Rank	Average
	19-74 years	3 9 years	19-78 years	37 years	12-18 years	14.7 years

Number of people living-sleeping in the household of the respondent	4.8 people		4.6 people		5.12 people	
Area of residence						
Urban	94	48%	117	57%	15	55%
Rural	88	45%	69	34%	62	29%
Peri-urban	13	7%	19	9%	3.4	16%
Number of pregnant women living in the household	mean = 0.04 (9 pregnant women / 195 households)		average = 0.073 (15 pregnant women / 205 households)		mean = 0.06 (13 pregnant women / 211 households)	
Distance to the nearest health center	2.35 km (1km data 34 km)		3 km (1km data 30 km)		3.3 km (1km data 40 km)	

EDUCATION



METHODOLOGY

A cross-sectional survey using a mobile-technology-based structured questionnaire was administered to 611 inhabitants of 12 communities in 9 municipalities (see table 1) of El

Salvador during September 2016. The study used a 2-stage, 30-cluster sampling method. The sample size was determined using the following equation:

Equation 1

$$n = \frac{Z^2(p)(q)deff}{d^2}$$

$Z=1.96$ for error risk of 5% (statistical certainty)
 $Deff=2$ (design effect common for cluster)
 $P=50\%$ estimated prevalence of indicator in the population (hh with severely damaged shelter)
 $Q=1-p$ (population not presenting with indicator)

To compare between men and women (aged from 19 to 65 years) and adolescents (from 13 to 18 years), population sample was stratified by gender and age-group. Survey teams intentionally prioritized geographical areas where WV has a presence and/or wants to develop activities in the near future. Thirty clusters were randomly selected with probability proportionate to the size (PPS) of the population in the municipality. Within each cluster, 20 households were randomly selected. In each household one person was interviewed.

The questionnaire consisted of 43 closed-ended questions selected from WHO's Knowledge, Attitudes, and Practices for Zika disease guidelines⁷. Seven supervisors and 19 community volunteers underwent a 2-day training period on interview techniques and utilization of mobile technology [(KOBOLLECT 1.4.8 (1057)]. The questionnaire was administered in Spanish in face-to-face interviews. Each interviewer used a smart phone to collect and store the interview data. When the team had access to the Internet, the completed questionnaires were sent to the SMAP management platform.

All collected data were downloaded from the SMAP server into Microsoft Excel. Data were checked for inaccuracies and inconsistencies and then entered into IBM SPSS Statistics 23 software. Data analysis was conducted in two steps. The first step consisted of the production of descriptive statistics for each variable included in the survey. The second included the calculation of *p*-values using a Mantel-Haenszel 2-tailed test.

MUNICIPALITY	COMMUNITY
Municipality Acajutla, Sonsonate	Armenia Urban Area
Lolotique municipality of San Miguel	El Palon
Caluco Municipality, Sonsonate	El Zapote
Ozatlán, Usulután	Casco Urbano,

Acajutla, Sonsonate	Metalio
San Francisco Menendez, Ahuachapan	Dirty face
Municipality of Jucuapa, Usulután	Tepesquillo Alto
Municipality of Jucuapa, Usulután	Urban area Jucuapa
Municipality of San Julian, Sonsonate	Chilata
Guaymango Municipality, Sonsonate	Morro Large
Guaymango Municipality, Sonsonate	Plantanares
San Francisco municipality of Javier, Usulután	San Francisco Javier Urban Area

Table 1: CAP-ZIKV El Salvador: list of communities by municipality where the collection of information was performed.

RESULTS

A. KNOWLEDGE

Knowledge

More than three-quarters (M=82%, F=78%, A=71%) of the population interviewed consider that it is possible at this time to get ZIKV in their community.

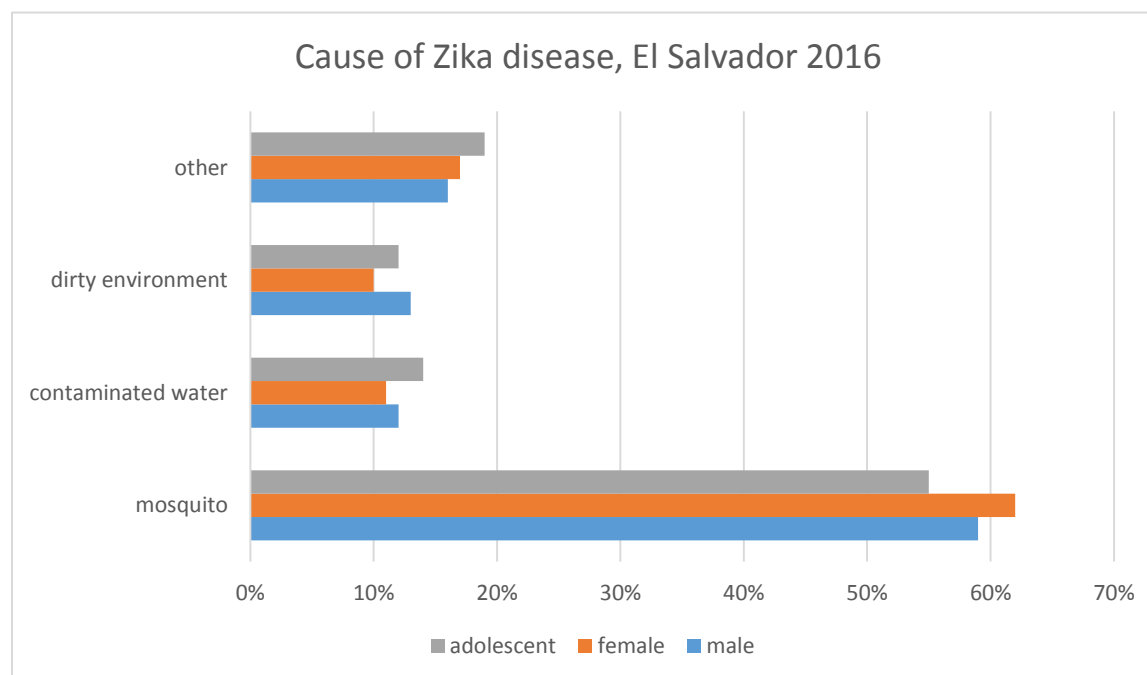
Three-quarters (M=77%, F=75%, A=72%) of those interviewed did NOT know anyone in their community who had recently contracted ZIKV.

SYMPTOM CAUSE

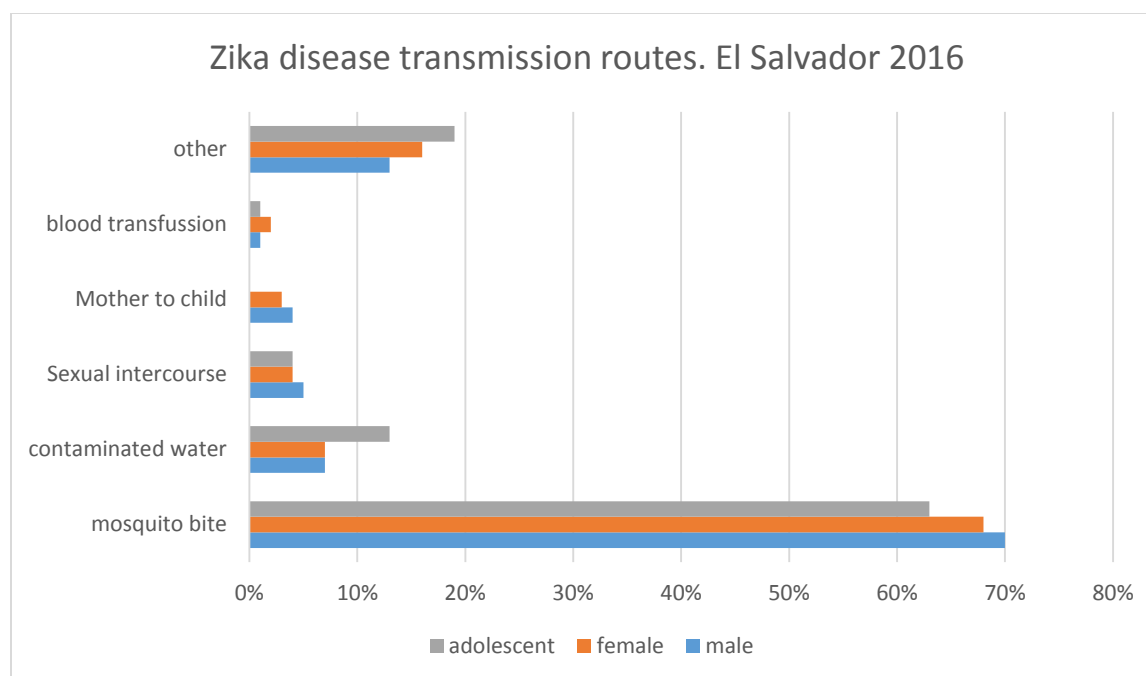
Although 42% of the interviewed men consider that they can contract ZIKV (as well as 36% of the women and 33% of the adolescents consulted), 22% of the men and women interviewed relate ZIKV as a child's illness (27% of adolescents). Only 6% of the interviewees associate women of childbearing age with ZIKV.

59% of male respondents identified mosquitoes as the cause of ZIKV (and 62% of women and 55% of adolescents). In addition, all respondents relate contaminated water and a dirty environment as ways of contracting this disease. Less than 3% of respondents relate it to sexual

intercourse, breast milk (0%) or vaccines (0%). 3% of the men interviewed stated not knowing the cause of ZIKA (2% in the group of women and adolescents).



70% of male respondents believe that the ZIKV is transmitted by mosquito bites (68% women; 63% in adolescents). Other aspects such as drinking contaminated water, a dirty environment and a virus are considered to be relevant factors for contracting ZIKV. Less than 5% of respondents in the three population groups mentioned sexual intercourse, breast milk or blood transfusion as mechanisms of ZIKV transmission. On the other hand, 1% of men reported not knowing how ZIKA is contracted (as well as 5% of women and 7% of those adolescents surveyed).



Among the men interviewed, the most commonly recognized signs and symptoms of ZIKV infection in a person were fever 24% (25% for women and 24% for adolescents), headache (~ 21%), rash (~ 11%) and joint pain (~ 17%) in the three population groups.

82% of the men interviewed said that all who contract ZIKV have symptoms (76% of women and 80% of adolescents).

89% of men and adolescents interviewed said that it is possible to prevent ZIKV (91% of women). The three groups of respondents pointed to the following measures as the most efficient: using bed-nets at night (~ 23%), cleaning/scouring water containers (~ 13%), removing stagnant water (~ 16%) and fumigating the home (~ 9), in the three population groups.

Treatment seeking medical care

53% of the men interviewed said that there is treatment available for ZIKV (55% of women and 45% of adolescents). 16% of the men interviewed indicated that there is no treatment (15% of women and adolescents). 23% of men interviewed said they did not know whether treatment for ZIKV was available (22% in women and 28% in adolescents).

Risk

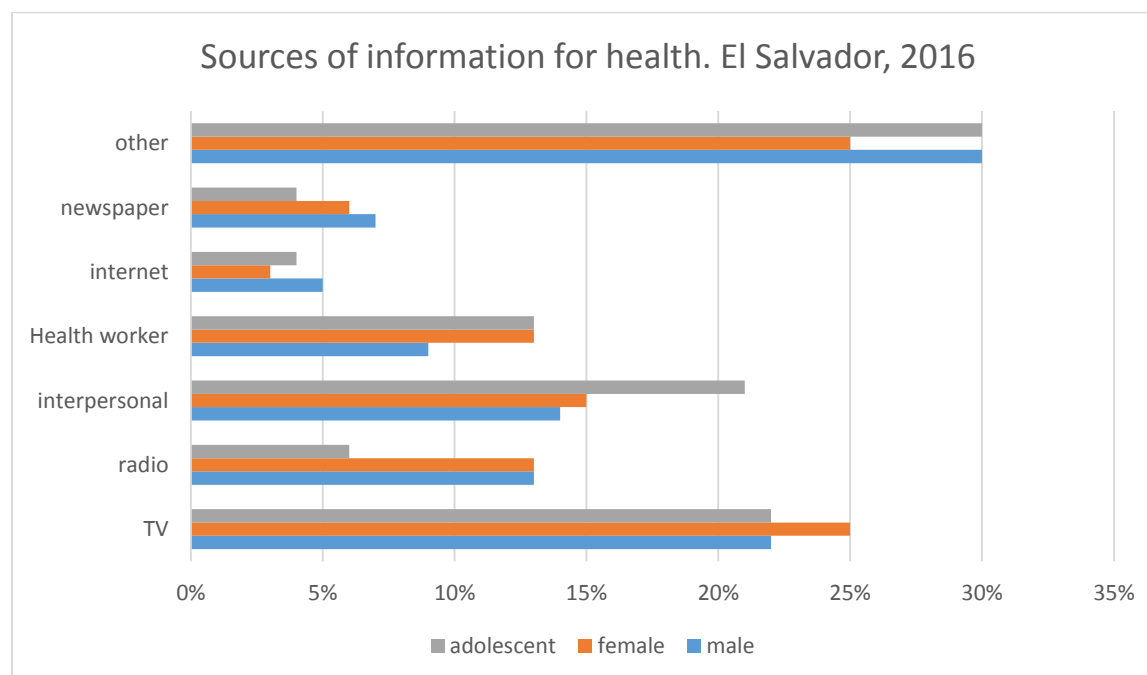
SSR- sexual and reproductive health

The men, women and adolescents interviewed stated that pregnant women (~ 35%), children (~ 29%) and the elderly (17%) were the groups most at risk of harm by ZIKV.

Respondents said that if a pregnant woman is infected with ZIKV, the main risks facing her include the risk of having a natural abortion (40% surveyed men, 43% in women surveyed, 38% in surveyed adolescents), difficulty during childbirth (29% of respondents) or being ill (21% surveyed men, 17% women and adolescents consulted). 5% of respondent men did not know about the risks facing pregnant women (3% of women and 7% in adolescents).

The men interviewed said that if a pregnant woman is infected with ZIKV the main risks facing her baby are: risk of being born with microcephaly (22% men and adolescents consulted; 21% women), risk of not growing or developing naturally in utero (19%; 21% among adolescents), risk of natural abortion (18%; 11% among adolescents) and / or risk of stillbirth (11% in all groups).

The three population groups surveyed reported they have received information on the ZIKV through: television, radio, family, friends and health workers in the health center. However, only 42% of women indicated that microcephaly is when the baby is born with a smaller than normal head. 30% of the men interviewed, 34% of women and 39% of teenagers do not know what microcephaly is.



Interviewees consider that there is a relationship between ZIKV and microcephaly (53% of men, 48% of women and 54% of adolescents). 32% of women DO NOT KNOW if there is a relationship between ZIKA and microcephaly.

Table 2: Knowledge of microcephaly and its association with ZIKV. El Salvador 2016

Microcephaly	Male	Female	adolescent
No knowledge	30%	34%	39%
No association with ZIKV	47%	52%	46%

45% of men and women respondents reported not knowing what Guillain-Barré syndrome was (as well as 48% of those adolescents surveyed). 33% of men reported that this syndrome is a type of paralysis (32% of women and 27% of those adolescents surveyed).

36% of the men interviewed expressed NOT knowing if there was a relationship between ZIKV and Guillain-Barre syndrome (40% of women and 35% of adolescents). 41% of men said that YES, this relationship does exist (38% in women and 42% in adolescents).

B. ATTITUDES

Risk

34% of the men interviewed considered themselves to be at high risk and 37% at medium risk of being infected with ZIKAV in the next 6 months (for women 37% and 32%, respectively, for adolescents 39% and 34%, respectively). Of this group of respondents, about 63% of men and 64% of women (for adolescents 57%) relate the risk with the presence of mosquitoes in their neighborhood and the fact that they do not have or do not use mosquito netting (13% of men, 14% of women and 15% of adolescents). Another reason is that the house does not have metal screens on doors or windows, or because they do not use repellents.

13% of male respondents consider themselves at low risk and 6% believe that there is no risk of them contracting ZIKV in the next 6 months (women 16% and 3%, respectively, adolescents 14% and 4% respectively). This group of respondents relate the low risk of infection with having cleaned their yard at home (33% men, 31% women and adolescents), clean-up campaigns in their neighborhoods or the fact that the water stored is covered (13 % of men, 15% women, 19% of adolescents).

PREVENTION

Most of participants placed responsibility of protecting the household from the Zika transmission at the individual level (39% of adults and 38% of adolescents). Followed by head of the household and health workers.

SSR- Sexual and Reproductive Health

Male and female respondents (48% of men, 46% of women and 47% of adolescents) expressed that they strongly agreed that women should avoid becoming pregnant at this time due to the risk of potential ZIKV infection). Respondents stated that the reason for their answer is that there is a risk that the baby will be born with disabilities (26% of male respondents) and that women may become ill (26% of women surveyed).

Information / Communication

56% of the men, 55% of women and 45% of adolescents interviewed believe that they do not have enough information about the ZIKV, but YES they would like more information. This group

expressed their desire for more information on the cause of the infection, as well as information on prevention, signs and symptom. Few people (<7%) showed interest in Guillain-Barre syndrome.

49% of men surveyed felt that the key messages were always clear and easy to understand (46% of women and 48% of men).

Knowledge

Of the interviewed men, 29% stated that their greatest concern about ZIKV was that it could kill people (24% of women and 30% of adolescents surveyed), cause disabilities in infants (26% of men, 31% of women and 27% of adolescent respondents) and cause disabilities in adults (10% men, 11% women and 9% adolescents).

On the other hand, less than 4% mentioned that ZIKA could be transmitted through sexual intercourse.

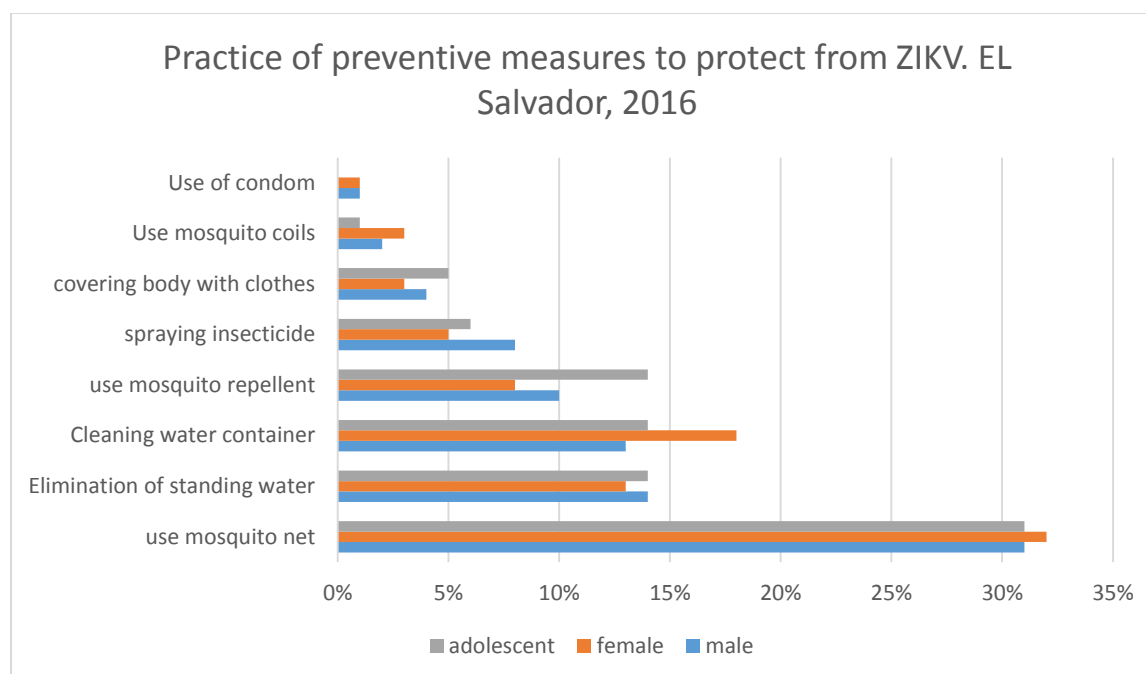
C. PRACTICES

PREVENTION

77% of the men interviewed stated that they had taken the following steps to avoid contracting the disease, since they had heard of ZIKV (as well as 88% of women and 69% of adolescents): use bed-nets at night, clean/discard containers with standing water storage or water, place a lid on water storage tanks and eliminate standing water.

About 18% of male respondents (12% of women and 26% of adolescents) said they had not taken any steps to prevent ZIKA infection since hearing of the ZIKV. The most common reasons for this response was not knowing what to do or the belief that there is no risk of contracting ZIKA.

70% of male respondents answered YES to having taken steps to prevent cases of ZIKV in their communities (73% in women and 64% in adolescents). In this group, the measures taken included cleaning the sources of water storage, placing a lid on the source of water storage, eliminating standing water and removing the trash.



Among respondents who said they have not taken any preventive measures against cases of ZIKV in their communities (22% of men, 26% of women and 33% of adolescents), the reasons specified were not having the resources or access to preventive measures (20% of men and 14% of women), believing that the community was not at risk (24% women and 20% adolescents) and not having time to take preventive measures in the community (19% adolescents), or not knowing what to do (22% of men, 20% of adolescents).

33% of male respondents and adolescents (46% of women) indicated that local / municipal organizations have NOT taken any action to protect them from ZIKV.

However, ~ 58% of respondents said that the local / municipal organizations HAVE indeed taken steps to protect with cleanups in the community, home visits for counseling of family members, educational messages on TV and training in schools and colleges.

The adults interviewed mentioned that mosquitoes can be reduced or eliminated from the home by fumigation (29%), keeping water sources / storage / water containers clean (11%), removing standing water (14%), keeping the environment clean and removing waste (18%). Only 7% said it was important to keep a lid on the source and storage of water. Adolescents interviewed mentioned that mosquitoes can be reduced or eliminated from the home by fumigation (35%), removing standing water (16%), keeping the environment clean and removing waste (14%). Only 4% said it was important to keep a lid on the source and storage of water.

78% of the men interviewed stated that the last time they had cleaned their water storage source was between 1-7 days (along with 81% of women and 68% of those adolescents surveyed). 14% of men said that it was over a week ago.

40% of the men and 44% of the women interviewed (17% of the adolescents) described cleaning the water storage source by emptying the container and rubbing it with soap or other solution before filling it.

Treatment and seeking medical care

About ~ 70% of respondents said that if someone (other than a pregnant woman) thinks they have ZIKA, they should go to the health center. Other options chosen were to go to the private doctor and stay home and take drugs to lower the fever and relieve pain, and drink plenty of fluids.

84% of the men interviewed mentioned that if they had a fever at the moment they would consider taking a diagnostic test to know if they have ZIKV (as well as 92% of the women and 86% of the adolescents consulted).

66% percent of the men and adolescents interviewed said that if a woman gets a fever while she is pregnant, she should go to the health center (67% of women). They also suggested going to a private doctor (10%) and receiving care and prenatal checkups.

MAIN FINDINGS

On knowledge about ZIKA, the KAP-ZIKA consultation in El Salvador showed that more than 80% of respondents believe that YES, it is possible to get ZIKV in their community, although three - quarters of respondents did not know someone in their community who had contracted ZIKV recently.

About 37% of respondents believe that everyone can get ZIKV; 22% consider ZIKV as a disease of children. Less than 6% of respondents associate women of childbearing age with ZIKV. Less than 3% of respondents consider sex, breast milk (1%) or vaccines (1%) as forms of ZIKA transmission. Nearly 80% of those surveyed said that ALL those who get ZIKV have symptoms and about 53% said that YES there is treatment for ZIKV.

The interviewees stated that if a pregnant woman is infected with ZIKV, the main risks she faces are: risk of having a natural abortion, difficulties during labor (29% of those consulted) or become ill. On the other hand, the main risks facing the baby are: risk of being born with microcephaly and risk of not growing or developing naturally in the uterus.

Although the three population groups interviewed reported that they had received information about the ZIKV through TV, radio, family, friends and health workers, only 42% interviewed knew the meaning of microcephaly; about 50% related microcephaly with ZIKV, while about 30% did not know the relationship between microcephaly and ZIKAV. On the other hand, about 45% of those interviewed did not know what Guillain-Barré syndrome was: less than 33% declared it to be a type of paralysis. Less than 40% of respondents said they did NOT know if there was a relationship between ZIKV and Guillain-Barré syndrome.

On attitudes around ZIKA, less than two-thirds of respondents believe that they are at high and medium risk of contracting ZIKA within the next six months, and relate it to the presence of

mosquitoes in their neighborhood because they do not use mosquito nets, or the absence of meshes on doors and windows. Those who consider themselves to be at low risk or at no risk (less than 19% of respondents) are reassured by clean-up campaigns in their neighborhoods, because they have a yard free of hatcheries or because the water stored is covered. Those consulted, mainly women (~ 47%) indicate that women should avoid becoming pregnant due to ZIKA, because of the risk of the baby being born with a disability.

Almost half of those surveyed feel that they do not have enough information on ZIKA; they want more information primarily on prevention, signs and symptoms and the cause.

More than three quarters of respondents indicated that local / national organizations have taken no steps to protect them from ZIKV with community clean-up campaigns, home visits for family counseling, TV education messages and training in schools and colleges.

Two thirds of respondents said that if a woman develops a fever while pregnant, she should go to the health center, and that she needs to receive antenatal care and prenatal checkups.