Understanding Perceptions and Practices Related to Zika Prevention Behaviors in Central America & the Caribbean

February 21, 2018

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Breakthrough
ACTION + RESEARCH
FOR SOCIAL & BEHAVIOR CHANGE

Learning Objectives

- Describe findings from recent Zika-related research studies conducted among adults in the Dominican Republic and El Salvador
- Identify at least two ways these findings could be used to inform Zika programming in similar settings

Outline

- Overview
- Methods
- Findings/Implications: Use of Mosquito Repellents
- Findings/Implications: Cleaning Water Storage Containers
- Q&A/Discussion

Breakthrough
ACTION + RESEARCH
FOR SOCIAL & BEHAVIOR CHANGE

- Breakthrough ACTION + RESEARCH are sister projects
- Shared goal to improve health and development outcomes
- USAID's Flagship programs for social and behavior change
- Support to USAID Zika response

Methods

KAP+ Quantitative Study

Purpose

- Provide a snapshot of knowledge, attitudes, and practices (KAP) indicators at a regional level
- Offer programmatically relevant information to implementing partners

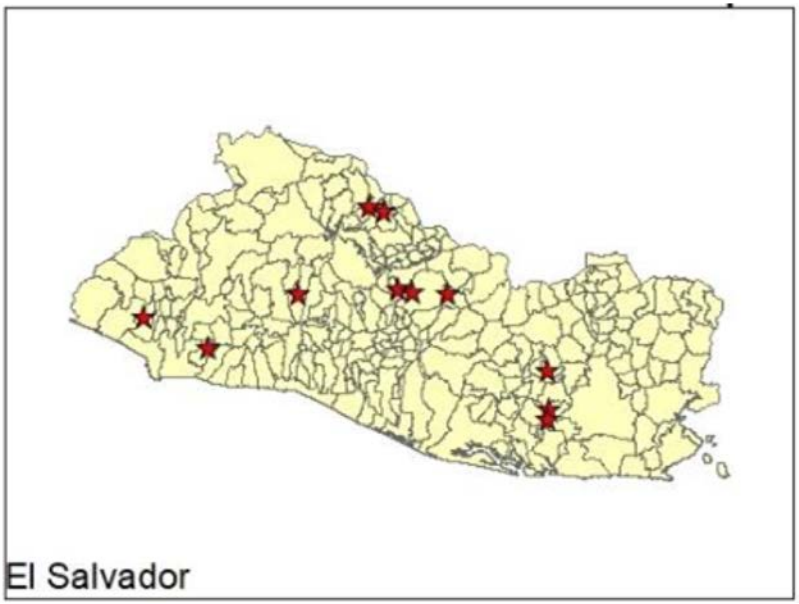
Methods

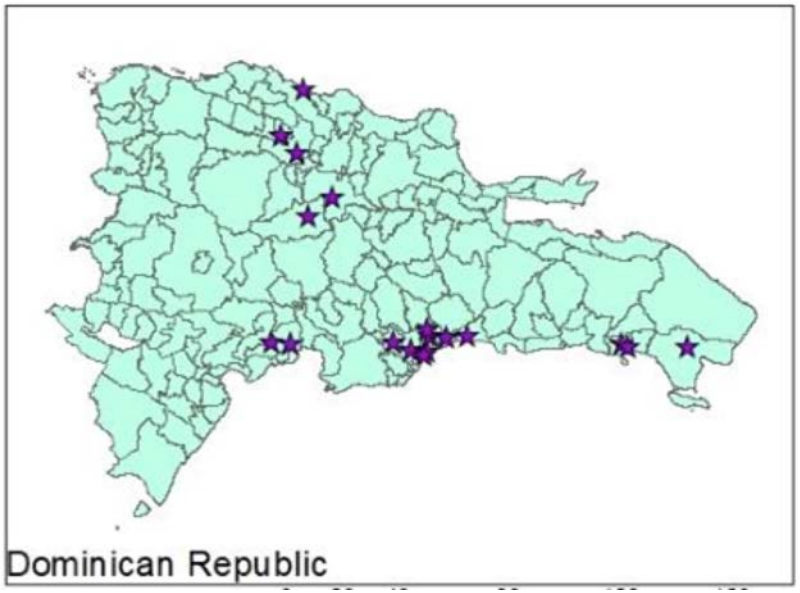
- Cross sectional population-based survey
- Weighted probability sampling within community engagement implementation areas
  - Each household has an equal probability of selection
  - Sample is representative of the population

Selection Criteria

- One person per household
- Must reside in household for at least previous six months
- Must not spend more than four nights away per week (to maximize potential exposure to programming within the community)

Study Sample





N=672
Median age = 33
Male = 31.5%

N=651
Median age = 33.9
Male = 33.9%

Constructs Measured

Knowledge	Attitudes	Practices
• Awareness • Transmission routes • Health effects • Prevention behaviors	• Perceived risk • Perceived effectiveness • Perceived feasibility • Self-reported level of motivation	• Preventive behaviors in last 30 day • Preventive behaviors in last 7 days

Qualitative Exploration of Zika Prevention Behaviors

Methods

Purpose

- Explore attitudes and factors that influence Zika prevention behaviors

Behaviors

- Personal protection
- Vector control
- Enabling behaviors

Constructs

- Perceived risk
- Perceived feasibility
- Perceived effectiveness

Recruitment

- Save the Children

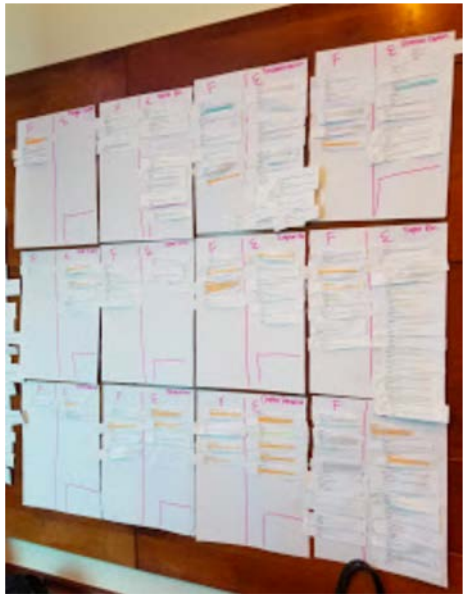
Data Collection

- Free listing
- In-depth interviews
- Focus group discussions
  - Pile sorting/voting
  - Simulation
    - Drawings
    - Cleaning water containers

Study Sample

	Dominican Republic	El Salvador
Methods		
In-depth interviews	8	12
Focus group discussions	12	11
Type of participant		
Male partners of pregnant women (18+)	32	27
Pregnant women (18–30)	27	30
Non-pregnant women (18–30)	27	24
Total	86	81

Data Analysis



Findings

Use of Mosquito Repellent

Dominican Republic

Country Context

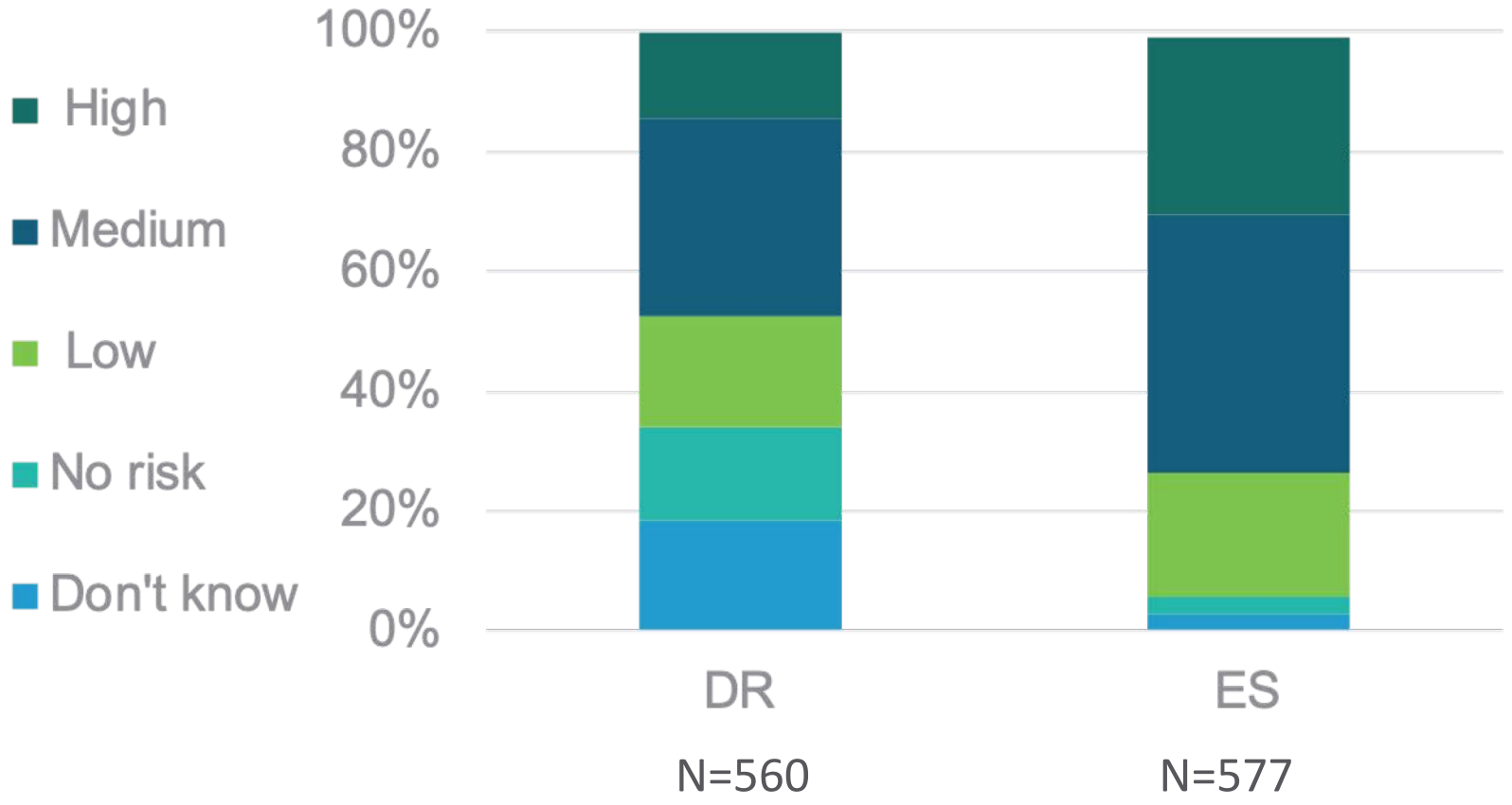
Ever heard about Zika	78% of men 90% of women (p<.05)
Know Zika is transmitted by mosquitoes	52% of men 64% of women (p<.05)
Know that birth defects are a possible health effect of Zika	10%

El Salvador

Country Context

Ever heard about Zika	88%
Know Zika is transmitted by mosquitoes	95%
Know that birth defects are a possible health effect of Zika	10% of men 18% of women ($p<.05$)

Zika Risk Perception



Repellent Use

Knowledge, Perceived Efficacy, and Practice

	Dominican Republic	El Salvador
Knowledge Repellent use can protect against Zika	3.7%	28%
Perceived effectiveness Repellent use is in top three most effective preventive actions	18%	20%
Behavior Used repellent in last 30 days	6.4%	Men 4.3% Women 8.9% (p<.01)

Self-Reported Motivation to Use Repellent

	Dominican Republic		El Salvador	
	P value	Marginal Effect	P value	Marginal Effect
Sex (female)	<.001	24%	-	-
Wealth	.001	25%	-	-
Perceived feasibility	<.001	27%	<.001	30%
Risk perception No risk Don't know	 - .015	 - -17%	 .008 -	 30% -

Controlling for: Age, fertility intention, perceived effectiveness, knowledge of prevention behavior, having received a home visit

Repellent Use in Last 30 Days

	Dominican Republic		El Salvador	
	P value	Marginal Effect	P value	Marginal Effect
Knowledge	-	-	<.001	19%
Perceived effectiveness	<.001	12%	<.001	17%
High motivation	-	-	.01	8%
Risk perception Medium High	 .005 .003	 9% 13%	 - -	 - -

Controlling for: Age, wealth, sex, fertility intention, high feasibility, having received a home visit

Findings:
Qualitative Exploration of Zika Prevention Behaviors

Use of Mosquito Repellent

Free Listing Frequency

Dominican Republic	El Salvador
1	4

Repellent Use

Focus Group Discussions	Feasibility		Effectiveness	
	Dominican Republic	El Salvador	Dominican Republic	El Salvador
Men	Moderate	Low	High	Moderate
Pregnant Women	Moderate	Moderate	High	High
Non-pregnant Women	Low	Low	Low	Moderate

Repellent Use

Barriers

Both	• Cost • Need to reapply
Dominican Republic	• Mosquitoes bite anyway
El Salvador	• Concerns about chemical use • Smell • Preference for other non-effective methods

It takes a lot of effort because
you need to put a bit on now
and then a bit later.
You have it pending in your mind
that you need to be reapplying all day.

Program Implications

Use of Mosquito Repellent

Program Implications

- Increase awareness regarding effectiveness of repellent to prevent mosquito bites
- Highlight benefits of short-term investment during pregnancy
- Dispel myths about safety of repellent use during pregnancy
- Identify ways to make repellents more affordable
- Frame repellent use to prioritize repellent use among pregnant women within households

Findings

Cleaning Water Storage Containers

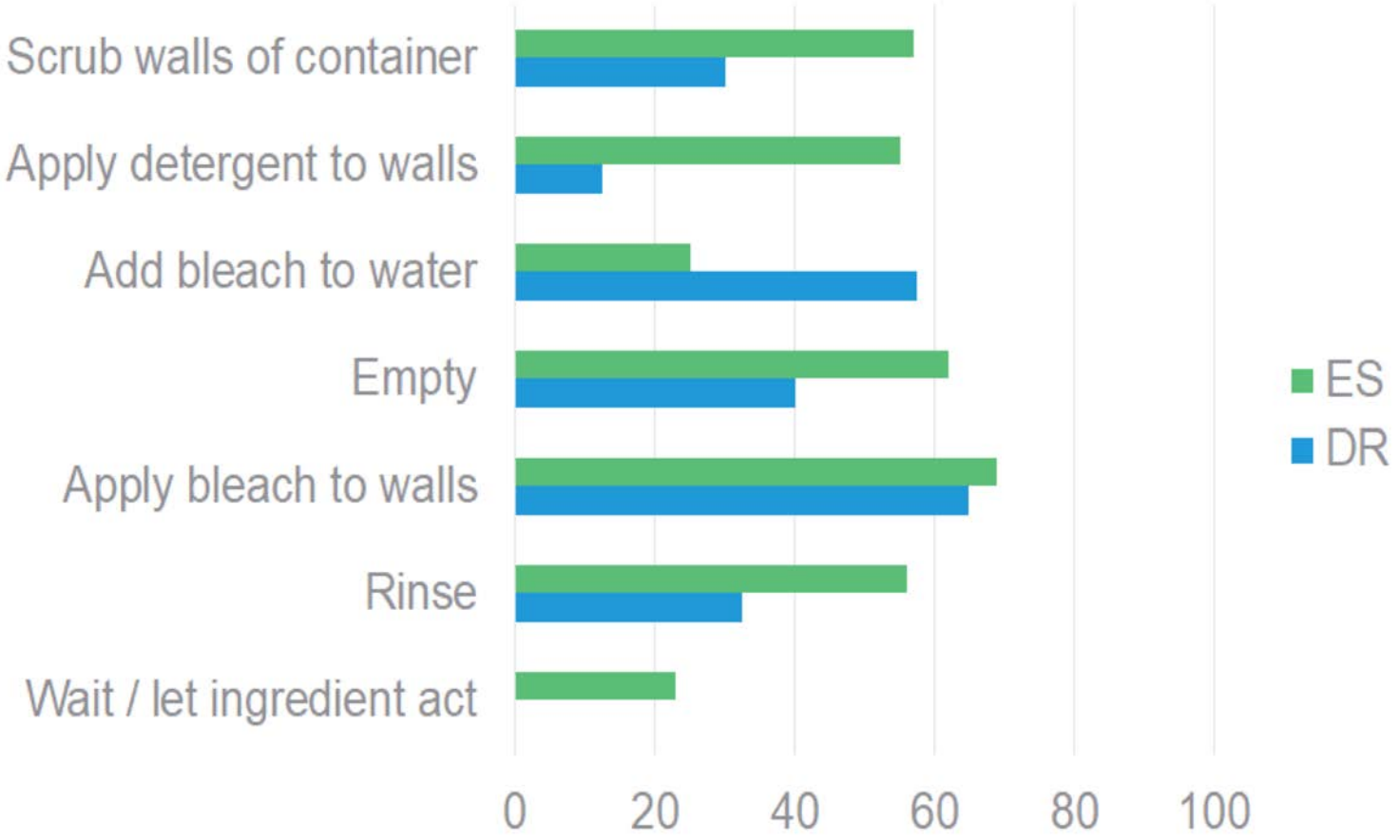
Cleaning Containers

Knowledge, Perceived Efficacy, and Practices

	Dominican Republic	El Salvador
Knowledge Cleaning water storage containers can protect against Zika	15%	67%
Perceived efficacy Cleaning containers is in top three most effective preventive actions	10%	39%
Behavior Cleaned water storage containers in the last 30/7 days for mosquito prevention	7%	58%
Behavior Cleaned water storage containers in the last 7 days but not for mosquito prevention	16%	7%

Cleaning Container

Steps Taken



Self-Reported Motivation to Clean Container

	Dominican Republic		El Salvador	
	P value	Marginal Effect	P value	Marginal Effect
Fertility as motivator	<.001	16%	-	-
Knowledge	<.001	-31%	.04	10%
Perceived effectiveness	-	-	.048	10%
Perceived feasibility	-	-	<.001	26%
Risk perception No risk Don't know	- <.001	- -32%	- .032	- -29%

Controlling for: Age, wealth, sex, having received a home visit

Cleaned Container in Last 30 Days

	Dominican Republic		El Salvador	
	P value	Marginal Effect	P value	Marginal Effect
Wealth	-	-	.025	17%
Knowledge	-	-	<.001	34%
Perceived effectiveness	-	-	.013	11%
High motivation	-	-	<.001	21%
Received home visit	.015	6%	-	-
High risk perception	.006	-12%	-	-

Controlling for: Age, sex, need to store water, fertility intention, high feasibility

Findings:
Qualitative Exploration of Zika Prevention Behaviors

Cleaning Water Storage Containers

Free Listing Frequency

Dominican Republic	El Salvador
30	54

Cleaning Water Containers

Attitudes

- Associated with having a clean home
- Associated with prevention of general illness as well as Zika
- Perceived as common practice and inexpensive
- Perceived as woman's domain

Cleaning Water Containers

Focus Group Discussions	Feasibility		Effectiveness	
	Dominican Republic	El Salvador	Dominican Republic	El Salvador
Men	High	High	High	High
Pregnant Women	High	Moderate	High	High
Non-pregnant Women	High	High	High	High

Cleaning Water Containers

Barriers

- Frequency of cleaning associated with water availability
- Perception that a “clean” container equals protection

Sometimes people live in places where water does not come frequently. Therefore, we have to wait until we consume [the water] and later clean [the container]. If an adequate quantity [of water] comes, then you dump what you have, you clean [the container].

Cleaning Water Containers

Simulation

Both	• Few described the most effective techniques for egg removal • Use of bleach varied
Dominican Republic	• Most used sponge, bleach, and detergent
El Salvador	• Most used brush, bleach, and detergent

Program Implications

Cleaning Water Storage Containers

Program Implications

- Clarify the proper cleaning technique, including highlighting egg removal as a specific step to cleaning water storage containers
- Piggyback on current general cleaning habits
- Disentangle water purification behaviors from *Aedes aegypti* breeding site elimination behaviors

Thank You

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Resources

1. Perceptions About Zika-related Prevention Behaviors Findings and Implications from two Qualitative Studies
   - Dominican Republic (English and Spanish)
   - El Salvador (Spanish)
2. KAP+ Research Briefs will be uploaded in the coming weeks as resources on the Zika Communication Network website
3. Zika Prevention Behavior Matrix
4. Technical Specifications Content Guide for Behaviors with High Potential to Prevent Zika