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# Emergency Appeal

## Central America: Dengue Outbreak

 International Federation  
of Red Cross and Red Crescent Societies

Appeal n° MDR42005

550,000 people to be assisted

Appeal launched 18 September 2019

2,900,000 Swiss francs current funding requirements

Appeal ends 18 September 2020 (12 months)

806,249 Swiss francs total DREF allocations (Nicaragua, Honduras and Guatemala)

This Emergency Appeal seeks a total of **2,9 million** Swiss francs on a preliminary basis to enable the International Federation of Red Cross and Red Crescent Societies (IFRC) to support **five National Red Cross Societies of the Central American Region (Guatemala, Honduras, El Salvador, Nicaragua and Costa Rica)**<sup>1</sup> to deliver assistance to 550,000 people for 12 months, with a focus on the following areas of focus and strategies for implementation: **Health; Water, Sanitation and hygiene promotion (WASH) and National Society strengthening**. The planned response reflects the current situation of the dengue epidemic in Central America<sup>2</sup> and information available at this time of the evolving operation and it will be adjusted based on further developments and more detailed assessments. Details are available in the Emergency Plan of Action (EPoA) [<click here>](#)

## The disaster and the Red Cross Red Crescent response to date

**21 November 2018, 22 February and 25 June 2019:** PAHO<sup>3</sup> publishes [three epidemiological alerts](#) on the increased number of dengue cases in the Americas and recommends countries to engage in preparedness and response activities.

**July 2019:** Government of Honduras, Guatemala and Nicaragua declare epidemiological alert for dengue. The IFRC issues a DREF operation in Honduras ([MDRHN013](#)) of 222,826 Swiss francs to assist 42,510 people.

**August 2019:** IFRC issues two DREF operations, one for Guatemala ([MDRGT015](#)) - 296,716 Swiss francs to assist 35,500 people - and one for Nicaragua ([MDRNI009](#)) - 286,712 Swiss francs to assist 41,750 people.

**9 August 2019:** [PAHO issues new epidemiological alert](#) flagging that the most deadly serotype of Dengue (DEN-2) is circulating and it is of concern that the population being affected is primarily children under 15 years of age

**18 September 2019:** IFRC issues an Emergency Appeal for 2.9 million Swiss francs to assist 550,000 people in Guatemala, Honduras, El Salvador, Nicaragua and Costa Rica.



*Honduran Red Cross personnel carrying out fumigation activities in communities affected by Dengue. Source: Honduran Red Cross. August 2019*

<sup>1</sup> Panama has not been included in this regional approach considering that no significant number of dengue cases have been reported so far (only 8 cases of severe dengue have been reported in the whole country as of Epidemiological Week 35).

<sup>2</sup> The IFRC's Americas Regional Office is closely supporting National Societies responding to dengue outbreaks through a tailored approach that is based on the level of the outbreak in each country, existing capacities of the National Society to respond and ongoing response by national authorities. Thus far, DREF-funded operations have been launched in Honduras, Guatemala, Nicaragua, Dominican Republic and Colombia. IFRC continues monitoring the outbreaks in case further scale up is needed.

<sup>3</sup> Pan American Health Organization (PAHO) – World Health Organization (WHO).

## The operational strategy

### Needs assessment

Dengue is endemic in the Americas, with epidemics that recur every 3 to 5 years. The table below shows a comparison of the cases reported cases of dengue in the Americas Region between 2014 and 2019<sup>4</sup>. There has been a concerning increase in the number of cases of dengue reported to date in 2019 compared to other years in the Americas.

**Reported Cases of Dengue Fever in The Americas**  
by Country or Territory  
Cumulative Cases

Select Country or Subregion: (Multiple values) | Select Year: (All) | Select Epidemiological Week: 52

ID	Country or Subregion	Year	Serotype	Epi. Week (a)	Total of Dengue Cases (b)	Incidence Rate (c)	Laboratory Confirmed	Severe Dengue (d)	(SD/D) x100 (e)	Deaths	CFR (f)	Population X 1000
2	Central America lthmus and Mexico	2014			296,947	175.01	55,249	11,269	3.79	72	0.024	169,677
		2015			408,087	237.35	44,455	7,084	1.74	81	0.020	171,936
		2016			295,042	168.59	26,964	1,405	0.48	64	0.022	175,005
		2017			185,937	104.86	24,230	592	0.32	62	0.033	177,318
		2018			172,388	95.98	22,365	2,280	1.32	87	0.050	179,616
		2019			283,192	157.89	19,981	15,388	5.43	217	0.077	179,357
7	The Americas	2014			1,164,988	123.11	361,845	15,742	1.35	678	0.058	946,328
		2015			2,415,693	252.88	646,090	12,495	0.52	1,355	0.056	955,289
		2016			2,174,827	224.98	479,149	4,382	0.20	915	0.042	966,665
		2017			580,640	59.85	117,570	2,104	0.36	317	0.055	970,162
		2018			561,359	57.35	209,181	3,549	0.63	340	0.061	978,867
		2019			2,384,900	244.30	1,065,732	17,794	0.75	949	0.040	976,235

Source: [PAHO PLISA Health Information Platform for the Americas](#)

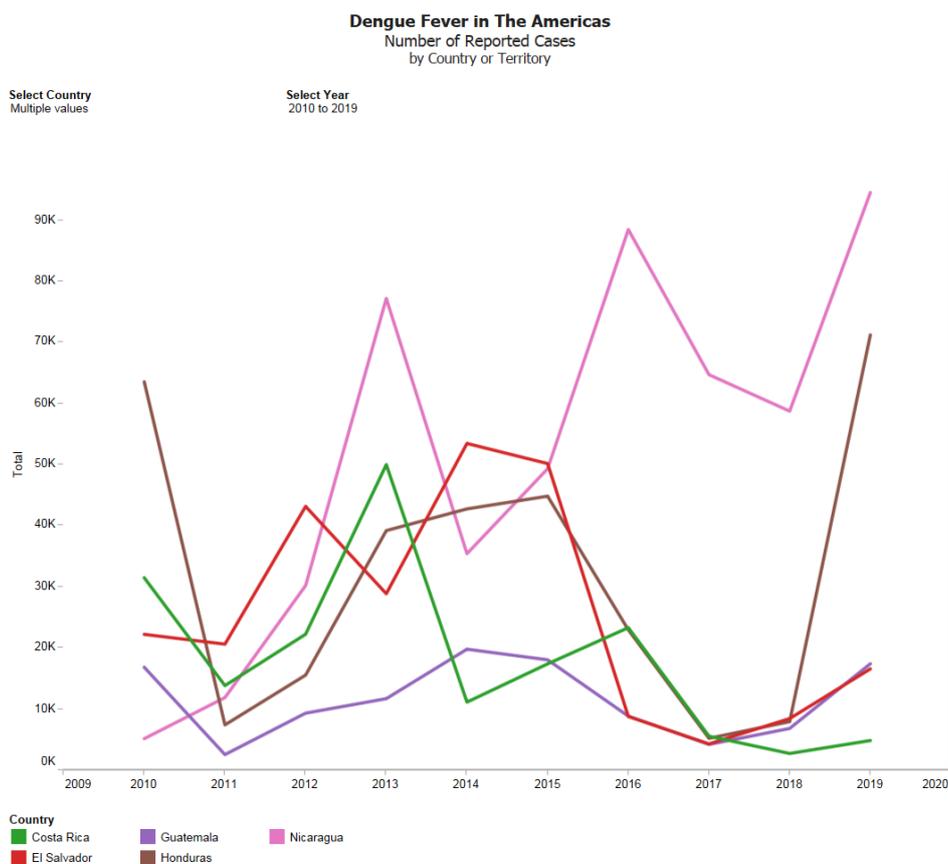
As of September 2019, case numbers in Honduras, Guatemala, Nicaragua and El Salvador have already surpassed the total case numbers of the 2016 outbreak. In the case of Costa Rica, the incidence of cases this year is much higher than the incidence of cases in 2018 and 2017. This is especially concerning given that Central America typically experiences its highest incidence of dengue between August and November.

Compared to the previous cycle in 2016, case numbers have increased significantly (1.5 times) beyond the emergency threshold. Honduras, Guatemala and El Salvador have already exceeded the emergency threshold (2.72, 2.55 and 1.6 times respectively). Nicaragua is close (1.10 times). In Costa Rica, there is a 250% increase compared to 2018.

While national health systems are currently managing cases appropriately and Case Fatality Rate (CFR) remains well under 1%, the increasing number of cases in the region, coupled with dengue affecting younger populations, present a potential for dengue to spread rapidly and overwhelm health services of affected countries.

<sup>4</sup> [PAHO statistics and data index](#)

The numbers and trends identified in the table below show that Central America is currently facing one of the largest outbreaks on record.



Source: Health Information Platform for the Americas (PLISA). Data reported by Health Ministries of the countries.  
 Note: Number of reported cases of dengue includes all dengue cases; suspected, probable, confirmed, non-severe and severe cases, and deaths.

Source: <https://www.paho.org/data/index.php/es/temas/indicadores-dengue/dengue-nacional/9-dengue-pais-ano.html?start=2>

Three countries in Central America have declared an Epidemiological Alert for the current outbreak: Honduras (14 June 2019), Guatemala (29 July 2019), and Nicaragua (31 July 2019). El Salvador and Costa Rica are reporting an increase in dengue cases compared to previous years and Ministries of Health of these two countries are implementing response activities to reduce the incidence of cases.

**Honduras** is experiencing the worst dengue outbreak in its history with 128 deaths and a CFR of 0.18%<sup>5</sup>. The country has reported 71,216 cases of dengue as of epidemiological week 35<sup>6</sup>. Nearly one quarter of the cases reported were classified as severe dengue.<sup>7</sup> The Ministry of Health indicates that the largest number of dengue cases are located in the Departments of Cortes, Santa Barbara and Comayagua.

The Honduran Red Cross (HRC) is implementing activities to respond to the ongoing dengue outbreak through the DREF. As of 15 September, the HRC has reached more than 50% of the targeted households and ensured the distribution of cleaning kits. Visits to households are continuing in order to ensure there are no more breeding sites in targeted communities. An education campaign is currently being implemented and coordination with the local authorities through the interagency coordination mechanism. It is expected that the fumigation activities will be implemented during the upcoming months.

In **Guatemala**, according to latest information available, a total of 38 deaths out of 17,413 cases (50 severe) have been reported as of EW 32<sup>8</sup>. Among the deaths reported, over half were of children younger than 15 years and most of those occurred in children aged 5-9 years.<sup>9</sup> According to the Ministry of Health the most affected departments are Huehuetenango, Quetzaltenango, Petén, Suroriental, Guatemala and Las Verapaces.

<sup>5</sup> PAHO Epidemiological Update. 9 August 2019

<sup>6</sup> <https://www.paho.org/data/index.php/es/temas/indicadores-dengue/dengue-nacional/9-dengue-pais-ano.html>

<sup>7</sup> Situación Epidemiológica de Dengue hasta la Semana Epidemiológica 31. Secretaría de Salud. Gobierno de Honduras. 9 August 2019.

<sup>8</sup> <https://www.paho.org/data/index.php/es/temas/indicadores-dengue/dengue-nacional/9-dengue-pais-ano.html>

<sup>9</sup> PAHO Dengue Cases. PLISA Health Information Platform for the Americas.

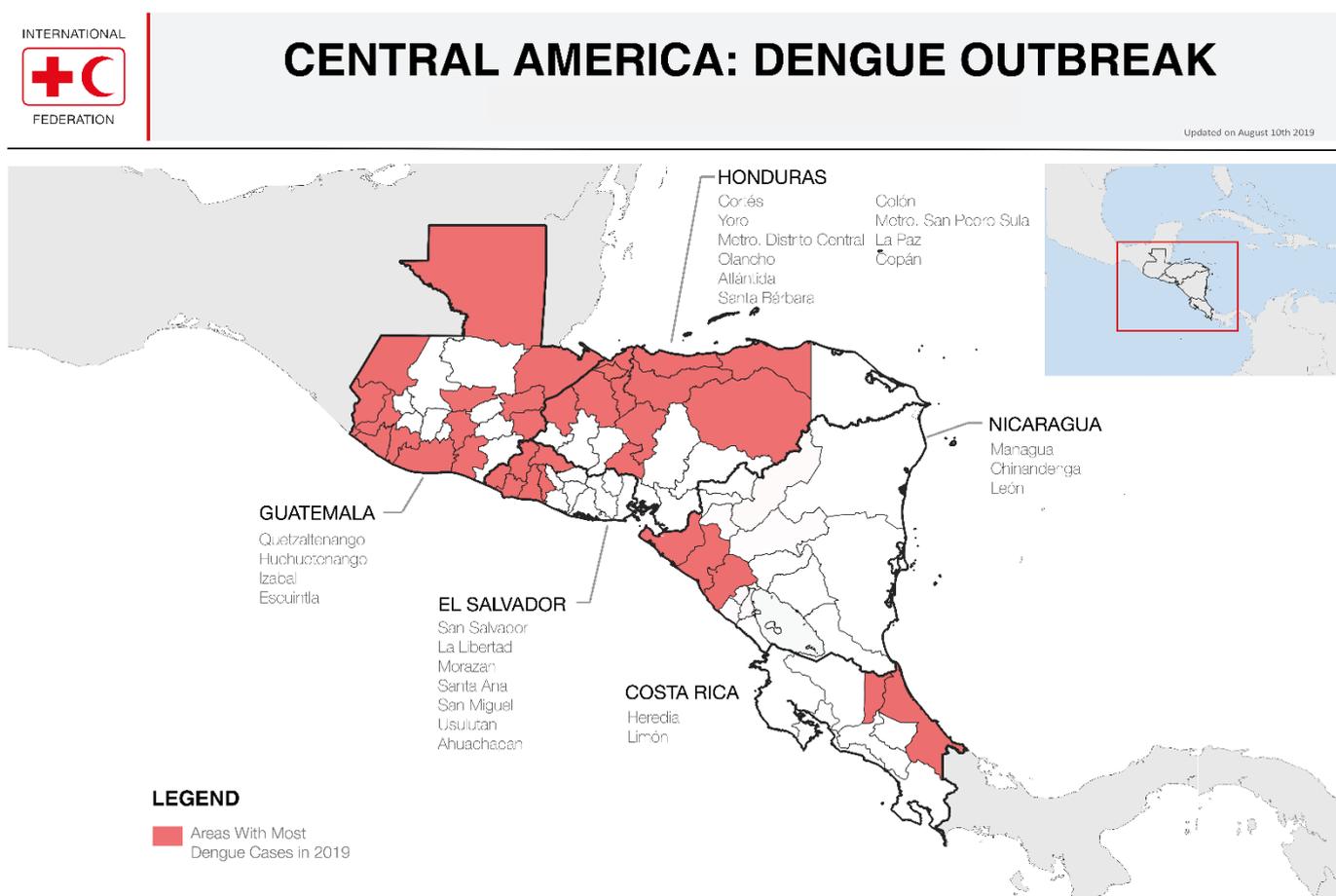
The Guatemalan Red Cross (GRC) is also implementing DREF activities in response to the dengue outbreak. The recruitment of the local staff in 4 branches has now been completed and strong collaboration is ongoing with the local authorities for coordination and planning purposes. The main procurement of the supplies included in the DREF has been launched and the supplies are expected to be delivered in the upcoming weeks. The design of the education campaign materials has now been completed.

In **Nicaragua**, 94,513 dengue cases have been reported as of EW 35, including 15 deaths due to severe dengue<sup>10</sup>. The government of Nicaragua has reported that the most affected provinces are Managua, Estelí, and Masaya. Similar to Guatemala, the outbreak is primarily affecting children<sup>11</sup>.

As part of its response to the ongoing dengue fever outbreak the Nicaraguan Red Cross (NRC) has set up strong coordination mechanism with the Ministry of Health at central level and with local health authorities at provincial and municipal level. The recruitment process of the staff included in the DREF operation has started including the deployment of Regional Intervention Team (RIT) member who is expected to join the NRC team by the third week of September. The main procurement of the supplies and equipment has also started.

In **El Salvador**, 16,573 dengue cases have been reported as of EW 35, including 5 deaths for severe dengue<sup>12</sup>. According to the Ministry of Health, the most affected departments are Santa Ana, Ahuachapán, Sonsonate and Cabañas. The El Salvador Red Cross has developed strong relationship with the Ministry of Health over the last few years and constant coordination is ensured with regards to the ongoing dengue outbreak in the country.

PAHO has reported a 272% increase in dengue cases in **Costa Rica** compared to 2018 (as of EW 35)<sup>13</sup>. As of EW 35 a total of 4852 cases have been reported in the areas located close to the border with Nicaragua (North Central and Huetar Caribe).



The maps used do not imply the expression or any opinion on part of the International Federation of Red Cross and Red Crescent Societies or National Societies concerning the legal status of a territory or of its authorities.  
Map data sources: Dirección Vigilancia de la Salud e INCIENSA (Costa Rica), Ministerio de Salud (El Salvador); Secretaría de Salud (Honduras); Ministerio de Salud (Honduras); Ministerio de Salud (Panamá), PAHO IFRC, Natural Earth GADM - Produced by IM Americas.

<sup>10</sup> <https://www.paho.org/data/index.php/es/temas/indicadores-dengue/dengue-nacional/9-dengue-pais-ano.html>

<sup>11</sup> [PAHO Dengue Cases. PLISA Health Information Platform for the Americas.](https://www.paho.org/data/index.php/es/temas/indicadores-dengue/dengue-nacional/9-dengue-pais-ano.html)

<sup>12</sup> [PAHO Dengue Cases. PLISA Health Information Platform for the Americas.](https://www.paho.org/data/index.php/es/temas/indicadores-dengue/dengue-nacional/9-dengue-pais-ano.html)

<sup>13</sup> [http://www.paho.org/data/index.php/es/temas/indicadores-dengue/dengue-nacional/9-dengue-pais-ano.html](https://www.paho.org/data/index.php/es/temas/indicadores-dengue/dengue-nacional/9-dengue-pais-ano.html)

PAHO has warned that this latest cycle of dengue outbreaks affecting the region is of concern because children under the age of 15 appear to be among the most affected. The higher incidence of dengue in this younger population indicates that this population is unlikely to have been exposed to previous outbreaks of dengue, increasing their vulnerability since they do not have acquired immunity against the serotypes circulating in the current outbreak. This situation also applies to the adult population that has not been affected in previous dengue outbreaks. It is important to point out that it has been evidenced that if the patient is immune compromised (whether adult, young or old) he or she is more likely to become ill with dengue fever<sup>14</sup>. Compounding the danger of this outbreak in Central America is that it is the deadliest of the 4 serotypes of the virus (DEN-2).

Figures showing the total number of cases reported this year can be found in table below (source: PAHO<sup>15</sup>).

### Reported Cases of Dengue Fever in The Americas

by Country or Territory  
Cumulative Cases

Select Country or Subregion		Select Year		Select Epidemiological Week								
(Multiple values) ▼		2019 ▼		52 								
ID	Country or Subregion	Year	Serotype	Epi. Week (a)	Total of Dengue Cases (b)	Incidence Rate (c)	Laboratory Confirmed	Severe Dengue (d)	(SD/D) x100 (e)	Deaths	CFR (f)	Population X 1000
2	Costa Rica	2019	DEN 1,2	35	4,852	97.96		2	0.04	0	0.000	4,953
	El Salvador	2019	DEN 2	35	16,573	258.47	667	98	0.59	5	0.030	6,412
	Guatemala	2019	DEN 1,2,3,4	32	17,413	100.97	730	50	0.29	38	0.218	17,245
	Honduras	2019	DEN 1,2	35	71,216	777.64	128	14,379	20.19	128	0.180	9,158
	Nicaragua	2019	DEN 2	35	94,513	1,503.79	4,729			15	0.016	6,285

Source: [PAHO PLISA Health Information Platform for the Americas](#)

There is an increasing risk of dengue infections as these countries experience their rainy season, especially in poorer areas where improper waste disposal and water and sanitation systems allow for the collection of stagnant water as breeding sites for the *Aedes aegypti* mosquito and mosquito populations climb. The messages coming from PAHO warn about the concerning impact of dengue specially for children where the mortality is the highest.<sup>16</sup> Especially concerning is that in populations where immunity is low and mobility high (as is the case in Central America) small increases in mosquito populations allow for rapidly increased potential of arboviral disease outbreak.

The following factors and conditions contribute to the risk of a worsening outbreak exceeding endemic thresholds throughout the region:

- Increased rainfall leading to faster outbreak spread due to increased mosquito breeding sites.
- Typically, highest incidence for dengue in Central America occurs from August through to November and sometimes extends to January.
- Currently the 4 dengue serotypes circulate simultaneously in Central America (DENV 1, DENV 2, DENV 3 and DENV 4), which increases the risk of serious cases, with the consequent burden of care for health services. Serotype 2 is one of the deadliest and is the one that is currently affecting children and adolescents in the region.
- Children under 15 appear among the most affected. In Honduras, they constitute 66% of all confirmed deaths, while in Guatemala, they represent 52% of the total cases of severe dengue. According to PAHO, this heightened risk is the result of low exposure and therefore low immunity among this age range.<sup>17</sup>
- There has been inadequate environmental management and limited access to water services in areas of poverty.
- The Central American region is experiencing a series of political and social challenges (restructuring of the Ministry of Health in El Salvador; health sector strikes and social mobilizations in Honduras, Nicaragua and Guatemala; etc.) that are hindering access to health services for the population affected by dengue fever.
- Migrants and internally displaced populations in the region may find accessing health services challenging,

National Societies in Central America have been able to support community health outreach activities and have used their unique access to cover gaps in service provision including support for environmental approaches to health. They have worked in the past to overcome the issues outlined above and are well equipped with the skills to respond.

<sup>14</sup> [PAHO Epidemiological Update. 9 August 2019](#)

<sup>15</sup> [idem](#)

<sup>16</sup> [PAHO 15 August 2019](#)

<sup>17</sup> [PAHO Epidemiological Update. 9 August 2019](#)

Continued investment in community-level coordination and response is needed beyond the timeframe of the DREF operations to ensure Red Cross continues to support affected and at-risk communities throughout this epidemic. In addition, this will ensure that Red Cross continues to participate in interagency coordination mechanisms led by the Government Agencies from each country, which will be up and running until the outbreak is fully controlled.

Dengue fever is typically a self-limiting disease with a mortality rate of less than 1%. However, the outbreak is causing deaths in Central America, and Psychosocial support (PSS) provided to families with deceased patients (and patients hospitalized with severe dengue) forms an important part of a sustainable response in this scenario<sup>18</sup>. PSS support will be provided through individual and family sessions. If the mental health condition is serious, the case will be referred to hospitals of the Ministry of Health. PSS activities will also be carried out for volunteers who provide PSS support to affected families<sup>19</sup>.

It is important to highlight that National Societies of the region have previous experience in the response to other diseases transmitted by mosquitoes of the *Aedes* genus (chikungunya, Zika). At the regional level, Zika prevention projects (Community Action on Zika -CAZ-, ZICORE, Zika-Caribe) have been implemented in the last 3 years, building capacities in 19 National Societies that are serving as the basis for implementing actions against the current vector borne epidemic. Key dengue communication messages have been designed and shared in the Red Cross Red Crescent Movement (the Movement) and will contribute to the development of communication and awareness campaigns for the National Societies currently responding to the ongoing dengue outbreak. These key messages are based on lessons learned through the CAZ project which were developed based on community participatory diagnostics and were proven successful with knowledge, attitudes, and practices (KAP) surveys.

In 2013, there were 5 NSs<sup>20</sup> in the Americas that successfully responded to dengue outbreaks. Some of the most relevant highlights from the regional lessons learned exercises are presented below and will be integrated in the planned intervention:

#### Monitoring and evaluation:

- Conduct an assessment of the needs and include the training and knowledge needs of the National Societies as part of a baseline.
- Develop an impact assessment strategy from the beginning and plan the appropriate data collection.

#### Vector Control:

- Use of trainings, talks, knowledge sharing, fairs, cleaning sessions and maps in schools to develop and raise awareness about the subject.

#### Community participation and accountability:

- Involvement of members of the school community as agents for the dissemination of key messages in the eradication and control of vectors.
- The participation of parents, teachers and students implies a greater incidence and capacity to replicate the messages transmitted as agents of change at the community level that can contribute to greater sustainability and continuity of the actions carried out.
- Use appropriate community engagement and accountability (CEA) strategies and tools to strengthen feedback mechanisms throughout the project cycle.
- Strengthen the link between community-based organizations and relevant institutions to ensure a timely response to the dengue epidemic.

#### Implementation of Community Based Health and First Aid (CBHFA) approach:

- The development of follow-up home visits to verify the implementation of the transmitted messages. This has not only served to know the scope and success of the teachings but also as a continuous reinforcement and supervision for the appropriation of good health practices by families.
- Give continuity to the training processes of the Red Cross volunteers and strengthening of branches, which allow them to update their knowledge and apply community monitoring models

#### Communications:

- The communication campaigns carried out in the media and the broad coverage achieved have proved to be a key and successful factor in the dissemination of key messages on health promotion and disease prevention.

<sup>18</sup> [Mental Health Protection and Psychosocial Support in Epidemic Settings](#). PAHO 2016.

<sup>19</sup> [IFRC Psychosocial Support Programme - Reference Centre for Psychosocial Support](#). 2016

<sup>20</sup> The five NSs that implemented DREFs funds in 2013 were: Guatemala (129,671 CHF). Costa Rica (139,066 CHF), Nicaragua (148,536 CHF), Honduras (148,536 CHF) and Colombia (297,813 CHF). For further reference see the IFRC public page: [link](#).

## Target population

The total population targeted is 550,000 people in Guatemala, Honduras, El Salvador, Nicaragua and Costa Rica. The calculation of the target population is based on the direct population to be reached through the proposed activities at community level and through school interventions.

The communities in which the activities of the Emergency Appeal will be implemented will be chosen in coordination with the Ministries of Health of each country based on the following criteria:

- Zones with high incidence of dengue;
- Areas with negative social and environmental determinants (poverty, inadequate urban planning, limited access to drinking water, among others);
- Areas with limited access to health services;
- Areas in which the Ministries of Health of respective countries want to improve their coverage.

## Coordination and partnerships

The IFRC maintains close and constant coordination with PAHO; which in turn works closely with the different Ministries of Health responding to the dengue outbreak in their respective countries. Only a very limited number of humanitarian actors are currently responding to the impact of dengue in the region; thus, highlighting the need for the Red Cross to continue and increase its actions in the current context.

PAHO has established joint missions to affected countries and coordination is in place to ensure National Societies are integrated into Ministry of Health plans, and PAHO technical experts are available to provide technical advice as needed.

The complexity and scale of the epidemic and the potential spread of dengue require a regional approach for coordination and support for National Societies' various response tools, as well as full support and coordination of the IFRC teams regionally and globally to ensure consistency throughout the organization.

Since the declaration of the nationwide epidemiological alerts in Honduras, Guatemala and Nicaragua continuous coordination meetings were organized with the Ministry of Health of each country. Strong coordination has also been set up at field level through the intersectoral coordination mechanism. It is expected that this intersectoral coordination mechanism will continue until the outbreak is fully under control.

The IFRC actions are always in support of the National Societies' efforts and will continue to be coordinated with other actors currently supporting countries in preparedness and response to major epidemics. The National Societies of the region, in compliance with their work as auxiliaries of the public authorities, are collaborating with their Ministries of Health in activities to prevent and control the Dengue epidemic. Considering the ongoing outbreak affects several countries of the region at the same time, regional coordination is needed to facilitate the following processes:

- Ensuring the quality and consistency of the National Societies' response based on the experiences gained in the CAZ project.
- Promote support among National Society staff,
- Synergize efforts with other regional agencies that are involved in dengue response
- Strengthen the prevention and response components of countries that have not yet declared a health emergency.

Constant coordination is also ensured with external partners carrying out dengue fever response activities. In Honduras; OCHA has provided an Emergency Cash Grant (ECG) of US\$100,000 for the United Nations while MSF continues supporting hospitals in the most affected geographical areas with human resources, medical equipment and supplies. PAHO/WHO is also providing support through the purchase of medical supplies for the response. In El Salvador OXFAM is supporting municipal authorities with fumigation campaigns and distribution of WASH supplies in schools and Save the Children continues supporting 11 municipalities with their existing Zika programme.

## Movement coordination

Various partner National Societies have presence in Central America. In Guatemala, Spanish RC and Norwegian RC are supporting the Guatemala RC in different programs related to health and disaster management, among others. In Honduras, Spanish RC, Norwegian RC, Swiss RC and Italian RC are present in the country. There are some ongoing coordinated actions to respond to the dengue outbreak with the Italian RC. In El Salvador, Spanish RC, Norwegian RC, Swiss RC and Italian RC have permanent delegations in country. In Nicaragua, Spanish RC and Norwegian RC are

present and ongoing coordination is led by the Nicaragua RC. There are currently no partners National Society with permanent presence in Costa Rica.

The International Committee of the Red Cross (ICRC) has permanent missions in Guatemala, Honduras, El Salvador and Nicaragua coordinated by the ICRC Regional Delegation for Mexico and Central America based in Mexico City. The ICRC coordinates its actions and cooperates closely with the different National Societies and Movement partners active in these countries, in particular the IFRC. The main activities of the ICRC in the countries in which the Emergency Appeal is implemented (except Costa Rica) aim at alleviating the human suffering caused by violence in the region and provide a response to the humanitarian needs of the missing persons and their families, the migrants and the internally displaced, persons deprived of freedom and people affected by violence. In Nicaragua, the ICRC focuses in the area of detention and supporting the capacities of the National Society in Safer Access and Restoring Family Links. In all countries, the ICRC strives to strengthen the capacities of the National Societies in close coordination with the IFRC and partner National Societies. The ICRC will provide all the support needed to facilitate the implementation of this Emergency Appeal.

Information has been continuously shared through the dengue regional dashboard, epidemiological updates, dengue information bulletins and other approaches. Partners have expressed interest in the dengue outbreak and Red Cross response.

## Security

Access to some geographical areas affected by organized violence can be challenging in some communities of Central America, especially in the Northern Triangle. National Societies of the region have increased their capacity to access some of these areas through trainings in security management and Safer Access (some of them implemented through DREF funded operations in the region). This is quite relevant especially in a vector control response like the dengue outbreak where access to affected communities is essential.

## Proposed Areas for intervention

The strategy of this Emergency Appeal is to contribute to prevent and respond to the dengue epidemic in the most vulnerable and affected countries in Central America.

The main efforts will be focused on the following actions.

1. Supporting National Societies to decrease community level risks through source reduction actions for mosquitos including environmental management and water and sanitation activities in communities and in schools;
2. Support community prevention and response through risk communication campaigns and community engagement and accountability;
3. Support Ministries of Health and other partners in meeting gaps in epidemic response, especially with regards to community engagement around chemical methods of mosquito control (larvicide and fogging).

## Areas of Focus



### Health

**People targeted: 550,000**

Male: 275,000

Female: 275,000

**Requirements (CHF): 1.5 million**

### Proposed intervention

**Needs analysis:** *Dengue in the Americas has evolved from a low dengue-endemic state to pandemic state with indigenous transmission now observed in almost all countries<sup>21</sup>. The increasing trend in severe dengue cases and the occurrence of more severe cases in children is alarming. There is no specific treatment to cure dengue, but the early identification of early warning signs and symptoms and early supportive care can save lives. Control measures rely on reducing the population of the *Aedes aegypti* mosquito through vector control activities. The success of these activities relies on a consistent behavior change. To ensure appropriate care-seeking for early supportive care, and to encourage household- and community-level action to reduce mosquito populations in the community, all actions*

<sup>21</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2803522/>

will be based on the Community Engagement and Accountability (CEA) approach. This approach will be used to share key messages that promote positive behaviour change in communities, carry out risk communication activities based on the evolution of the epidemiological situation, monitor and respond to rumours and misinformation, and increase participation of volunteers and community leaders in dengue prevention activities.

**Health outcome: The morbidity and mortality of dengue has been reduced through effective management of health emergency risks in affected and at-risk countries.**

**Output 1.1 The spread and impact of dengue is reduced through community-based Health and first aid (CBHFA) approach**

- Training workshops for volunteers on identification of dengue symptoms and importance of referral to care
- Strengthening of community health committees using the CBHFA approach
- Development of risk maps for the elaboration of an Intervention Plan for Vector Control at the community level
- Supporting surveillance of mosquito populations coordinating with Ministries of Health in collaboration with WASH teams
- Carry out home visits to promote key prevention messages against dengue and carry out vector control activities.

**Output 1.2 Schools have information on the prevention and early detection of dengue complications.**

- Training and/or strengthening of school health committees to carry out dengue prevention activities in their school community
- Educational sessions with directors, teachers, children and adolescents on the identification of signs and symptoms, timely referral of severe cases, dengue prevention measures including self-protection measures (using the Zika, Dengue Chikungunya Toolkit developed during the Global Zika Appeal in conjunction with the Climate Change Centre)
- Development of risk maps for the elaboration of an Intervention Plan for Vector Control at the school level.

**Output 1.3: Improvement of the capacities of vulnerable populations through communications campaigns based on the CEA approach that promote the adoption of behaviors that decrease the incidence of dengue cases.**

- Identification / validation activities of key messages - CEA implementation at community level including adaptation of risk communication according to the epidemiological scenario and the monitoring of rumors and misinformation
- Conduct awareness campaigns including dissemination of messages in the media based on community assessment of most appropriate media channels (for example broadcast of radio messages by local stations) about vector control, identification of warning signs and obtaining timely medical assistance
- Reproduction of educational material (flyers, posters, school notebooks, cards)
- Collect evidence on community development actions in order to identify best practices to improve the response against future outbreaks of dengue or other arboviruses
- Implementation of a system that promotes bidirectional communication with people in the communities.

**Output 1.4 The National Societies affected have the necessary resources and competence to support health authorities in activities in the communities affected and at risk of the dengue epidemic.**

- Support local health authorities in vector control and provision of materials and personal protective equipment
- Support refresher workshops for health personnel on guidelines for care of patients with dengue fever
- Participate in coordination meeting, joint mission and activities at community level.
- Support update workshops for health personnel on standards of care for patients with dengue fever
- PSS sessions aimed at family members of people who have died of dengue fever or who have been admitted to hospitals for dengue fever.



## Water, sanitation and hygiene

People targeted: 550,000

Male: 275,000

Female: 275,000

Requirements (CHF): 580,000

### Proposed intervention

*This area of focus will promote activities based on integrated vector control management, to improve efficiency and achieve sustainability of the prevention and control actions and includes the following:*

- Selection of vector control methods at community level in order to focus on its most productive sites (i.e. breeding sites for mosquitos with the highest yield of mosquito populations)
- Removal of stagnant water in houses and around, provision of larvicides in line with Ministries of Health initiatives, community clean-up sessions of public areas, clean-up campaign in schools and home visits
- Proactively engage the community and establish community feedback mechanisms designed to prevent and respond to negative perceptions of vector control activities.

### Outcome 2 Dengue's risk has been reduced thanks to hygiene promotion and vector control

#### Output 2.1: Social mobilization is promoted for the elimination of dengue vector reproduction sites

- Formulate an action plan for sanitation and hygiene promotion
- Purchase and distribute cleaning kits in communities and schools (chlorine, rake, shovel, broom, liquid soap, gloves)
- Development of Risk maps for the Development of a School Intervention Plan for Vector Control and implementation of an intervention plan (cleaning of breeding sites)
- Carry out community cleaning campaigns for the eradication of breeding sites in affected communities (including schools) supported by the use of the Zika Dengue Chikungunya Toolkit for schools
- Training of community volunteers and school staff in vector control, hygiene and sanitation campaigns (using the *Aedes aegypti* rota folio guide of the IFRC Zika Project that has been community tested in most countries in Central America)
- Conduct regular home visits to monitor control measures and the use of appropriate methods of vector control.

#### Output 2.2 The response of the Ministry of Health is strengthened

- Acquisition of personal protective equipment for carrying out chemical vector control activities, fogging equipment and supplies for fogging / spraying sessions, mosquito nets
- Guarantee the training of community volunteers and collaborators in the multiple interventions and the appropriate use and maintenance of equipment and materials
- Home visits to apply larvicide and monitor density of vector and acceptance of the community in adopting such measures.

## Strategies for Implementation

Total Requirements (CHF): Total 820,000

Technical and coordination support required to deliver in this operation will be set up, depending on demand. The following programme support functions are needed in order to ensure an effective and efficient technical coordination: **human resources; logistics and supply chain; information technology support (IT); communications; security; planning, monitoring, evaluation, and reporting (PMER); partnerships and resource development; and finance and administration.**

### Strengthen National Societies

**Outcome S1.1: The capacity development and organizational development objectives of the National Societies are facilitated to ensure that they have the legal, ethical and financial foundations, systems and structures, skills and capacities necessary to plan and act.**

***Output S1.1.1: National Societies have increased their capacity to manage emergency health and response risks***

Activities planned:

- CBHFA training for volunteers
- Training of community leaders including school staff and students
- Dengue management (prevention measures, identification of sign symptoms warning signs of dengue, referral systems)
- CEA workshops and risk communication strategy
- Public Health in Emergency - Regional Training
- Collaborative actions at community level
- Support the contingency plans for each National Societies with regards to preparedness to respond to future outbreaks

***Output S1.1.2. National Societies have the necessary corporate infrastructure and system in place***

Activities planned:

- Acquisition of office supplies
- Communication and Internet coverage of the volunteers involved
- Visibility and operational team for volunteers participating in the operation.
- Insurance for volunteers participating in the operation
- Coverage of transport costs
- Recruitment of personnel for the operation
- Acquisition of portable radios
- Fuel for vehicles, rental and maintenance

**Ensure Effective International Disaster Management**

***Output S2.1: An effective response preparation and response capacity mechanism is maintained in case of emergency situations of National Societies***

Activities planned:

- IFRC supervision visits
- Assist and monitor the implementation of the appeal and guarantee the continuous support and appropriate follow up
- Integrate epidemic and pandemic elements in the preparedness and contingency plans as part of the preparation and response capacity mechanism of the National Societies
- Ensure the timely deployment of health technical assistance based on competencies
- Guarantee the sharing of information at all levels for informed decision and feed the regional information platform
- Workshop on lessons learned
- External Evaluation of the operation

## Budget

International Federation of Red Cross and Red Crescent Societies

### EMERGENCY APPEAL

#### MDR42005 - CENTRAL AMERICA

##### *Funding requirements - summary*

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HEALTH	1,500,000
WATER, SANITATION AND HYGIENE	580,000
STRENGTHEN NATIONAL SOCIETY CAPACITIES	320,000
ENSURE EFFECTIVE INTER'L DISASTER MANAGEMENT	500,000
<b>TOTAL FUNDING REQUIREMENTS</b>	<b>2,900,000</b>

*all amounts in Swiss Francs (CHF)*

**Elhadj As Sy**  
Secretary General

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## Contact Information

For further information, specifically related to this operation please contact:

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## How we work

All IFRC assistance seeks to adhere to the **Code of Conduct** for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGO's) in Disaster Relief and the **Humanitarian Charter and Minimum Standards in Humanitarian Response (Sphere)** in delivering assistance to the most vulnerable. The IFRC's vision is to inspire, **encourage, facilitate and promote at all times all forms of humanitarian activities** by National Societies, with a view to **preventing and alleviating human suffering**, and thereby contributing to the maintenance and promotion of human dignity and peace in the world.

The IFRC's work is guided by Strategy 2020 which puts forward three strategic aims:



**Save lives,**  
protect livelihoods,  
and strengthen recovery  
from disaster and crises.



Enable **healthy**  
and **safe** living.



Promote **social inclusion**  
and a culture of  
**non-violence** and **peace**.