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# Knowledge, Attitudes, and Practices: Measuring Community Understanding of Heat Waves





A volunteer for the German Red Cross interviews two builders in Hanoi's Hoàng Mai District on November 1, 2018 as part of the "FbF Ready" project's Knowledge, Attitudes, and Practices Survey.

# A BASELINE FOR THE FBF APPROACH

In June 2018, the Vietnam Red Cross (VNRC) and German Red Cross (GRC) launched the "FbF Ready" project in Hanoi, Vietnam. The project seeks to identify early actions that can reduce the health impacts of heat waves with a special focus on vulnerable groups including the elderly, children, people with disabilities, people with chronic disease and street workers. The project will also equip the VNRC to replicate the FbF approach to respond preemptively to other disasters.

To develop a Forecast-based Financing (FbF) mechanism and stage anticipatory humanitarian action, the Vietnamese Red Cross (VNRC) and German Red Cross set out to collect qualitative and quantitative data about the **knowledge**, attitudes, and practices of individuals within the most vulnerable segments of city's population.

Toward this end, and with the assistance of volunteers from the Hanoi University of Public Health, the VNRC and GRC carried out an **Knowledge**, **Attitudes**, **and Practices** (**KAP**) **survey** of four key groups:

- Street vendors
- For-hire motorcycle drivers
- Construction workers
- Slum dwellers

Special attention was paid to collecting responses from the elderly, who are represented across all four sampled groups.

The demographic information and findings baseline of this study will also contribute to the finalization of the vulnerability mapping process and the targeting of beneficiaries. Moreover, the baseline will also contribute to determine S.M.A.R.T indicators to be measured during the project life cycle.

# SAMPLING STRATEGY

Random sampling was conducted in three out of 12 of Hanoi's districts, which were also selected randomly. Of the 12 districts, four were categorized as "central" (Ba Dinh, Hoan Kiem, Dong Da, Hai Ba Trung) and eight as "expanded"

(Cau Giay, Ha Dong, Long Bien, Nam Tu Liem, Bac Tu Liem, Thanh Xuan, Hoàng Mai, Tay Ho). The central district selected was Ba Dinh and the "expanded" districts selected were Ha Dong and Hoang Mai.

The survey's sample size was set up to achieve a confidence level of 95 percent with a standard error of 0.07.

#### **RESULTS**

Although in-depth review of the survey data is ongoing, a preliminary analysis of the data produced a number of compelling results. Among the intitial takeaways:



A Red Cross volunteer interviews a street vendor in Hanoi's Hoàng Mai District on November 1, 2018 as part of the "FbF Ready" KAP survey.

- All surveyed groups worked more than 8 hours per day. Street vendors reported working the longest hours (10.4).
- The majority of persons from vulnerable groups have experienced symptoms of heat exhaustion during heat waves. However, only 33 percent know some of the symptoms of heat stroke.
- About 30 percent of the street vendors and shippers surveyed have seen their income reduced between 25 and 50 percent. (See Fig. 1)

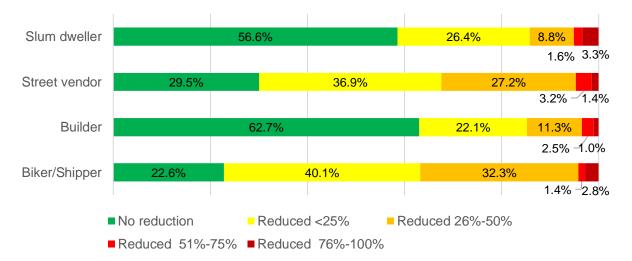


Fig. 1 Reduction of Income During Heatwaves

- 22 percent of vulnerable persons have been to the doctor during heat waves.
- Healthcare costs (visits to the doctor and medicine) equal between 1.5 and 2.5 times the daily income of surveyed groups. (See Fig. 2)
- The majority of vulnerable groups stated they adopt key measures to better adapt to very hot weather, including drinking plenty of fluids, staying houses and shaded places, and taking long breaks at midday.
- Only 24 percent of vulnerable groups could recognize the signs of heat-related illnesses and only 7 percent cope by staying as long as possible in air-conditioned places (only 20 percent of slum dwellers surveyed had access to air conditioning in their bedrooms).

550 2.53 days 500 515 2.3 days 450 427 Thoundsand VND 414 400 1.39 days 350 378 1.51 days 337 300 243 250 220 200 185 204 150 100 Builder Slum dweller Biker/Shipper Street vendor Health cost Mean Health Cost Group Mean Income per day Mean Group Income Mean

Fig. 2: Healthcare Costs versus Income Per Day

# **NEXT STEPS**

Following the collection and analysis of the quantitative results of the KAP survey, project staff will conduct **Focus Group Disussions (FGD)** to gain a deeper understanding of the results of the KAP survey and to gather additional qualitative data about heat wave knowledge, adaptations, and coping capacities, among other topics.

The results of the KAP survey and FGDs will then be used to develop a **Theory of Change** in consultation with beneficiaries and other stakeholders to identify behaviors among vulnerable groups that can be transformed and improved.

# **KEY FIGURES:**

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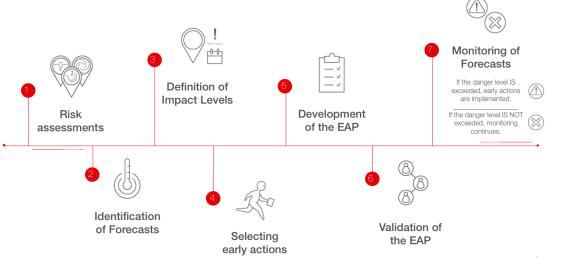
Total interviews.

66%

Percent of the respondents reported feeling four to seven symptoms of heat exhaustion.

*22%* 

Percent of vulnerable people who went to the doctor during a heat wave.



Above: The "FbF Ready" project's progress as of December 2018. Before identifying the forecasts and defining the impact levels at which early actions will be triggered, the VNRC and GRC must conduct extensive surveys and assessments to understand the impact of heatwaves on Hanoi's most vulnerable populations.



