Department for International Development: Humanitarian Coding

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Introduction

The Department for International Development is a ministerial department leading the UK's humanitarian response to the Syria Crisis. Severity of need is measured with the OCHA severity scale, which is reported annually and evaluates the ground situation for specific sectors in a scale up to 6, with 6 being the highest severity of need.

Objectives

Debug and enhance the R code used to clean and process data coming from partners in the ground to improve its efficiency, make it more user-friendly, and add new capabilities to allow for more detailed monitoring and evaluation of results.

Explore the capabilities of R regarding mapping and data visualisation to provide an explanatory analysis of the distribution of aid in specific areas according to the severity of their needs and their evolution over time.

Method

For the R code, a short time to understand its workings and the errors reported was necessary. Then, and with continuous feedback from the supervisors, corrections to the code were made and tested with small and large samples of datasets and verified with complete quarterly datasets with randomly selected or one-to-one (where appropriate) comparisons of the results. Resulting in enhanced datasets to be used in future monitoring and evaluation.

For the mapping project, severity of need was represented using the OCHA Severity Scale which is reported on an annually basis by subdistrict in different sectors, such as Education, Nutrition, Health, etc. Scales were then included in the clean datasets and attached to geographical markers from shapefiles publicly available online by subdistrict and sector. An example is presented in Fig.1.

The enhanced datasets were processed by partner and sector, and specific kinds of aid were selected and aggregated at the subdistrict level to elaborate an explanatory analysis of geographical distribution and the evolution of the severity of need in the areas where aid was given. An example is presented in Fig.2, as can be seen, this provides an explanatory analysis of the evolution of severity in the subdistricts that were attended from year to year.
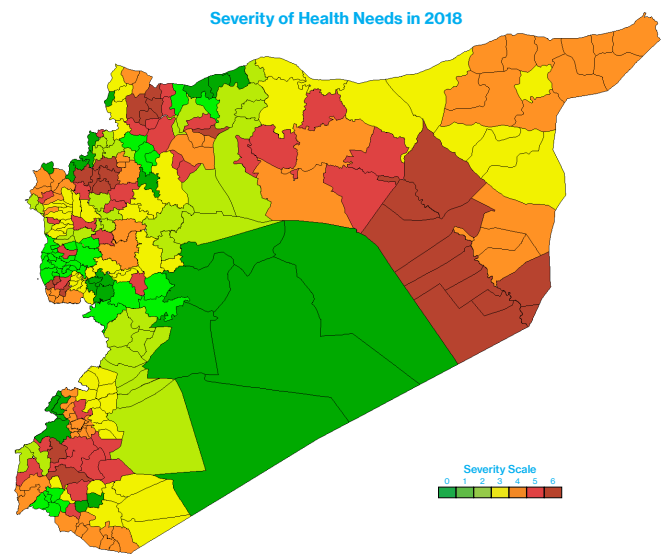
Severity of Health Needs in 2018

Severity Scale
0 1 2 3 4 5 6

Fig.1 (Only illustrative, data randomly generated for security purposes)

of First Aid Kits provided in 2017

0	1	2	3	4	5
20%	13%	44%	9%	10%	4%

of First Aid Kits provided in 2018

0	1	2	3	4	5	6
12%	6%	22%	28%	11%	15%	6%
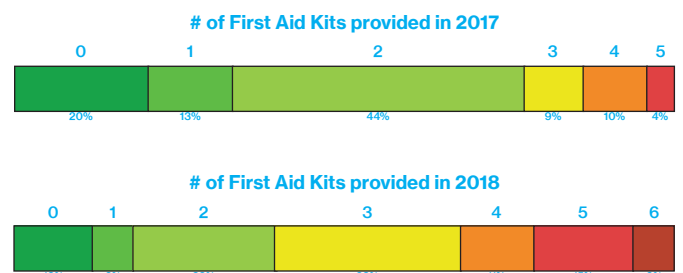
Fig. 2 (Only illustrative, data randomly generated for security purposes)

either as markers for their response, or as markers of the effect of their programs within a subdistrict in a specific sector.

Results and Conclusions

While the projects did not have specific research questions, the process provided two interesting findings for future analysis. Firstly, the annual severity scale used in the explanatory analysis, while helpful to guide action, is still limited when analysing the specific effect of aid being delivered.

Secondly, the severity scales can be used to complement the monitoring and evaluation process of the partners in two ways,

Key Skills Learnt

I have learnt to manage complex datasets with both temporal and spatial dimensions during my internship, as well as the basics of data cleaning, debugging, and mapping in R to provide explanatory analysis while being adaptive and resourceful to overcome its limitations and those of the datasets.

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Q-Step

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