Providing more effective support for people in crisis

British Red Cross

The Challenge

- Deliver a broad range of efficient, appropriate and responsive services to support people in crisis in the United Kingdom

The Benefits

- More efficient responses to emergencies
- Shared understanding of fast-moving situations
- Targeted allocation of resources to areas of greatest need
- Well-informed decision making and improved reporting
- Time freed up to develop new solutions

The British Red Cross is using the latest ArcGIS technology to help it respond more effectively to all kinds of emergencies, from sheltering people affected by house fires and flooding to supporting vulnerable people through lockdowns. It has developed a suite of new web apps that enable it to better allocate its resources, collaborate effectively with partners and provide faster support for people in crisis.

The Challenge

In 2020, the British Red Cross launched a new ten year strategy, setting out its plan to not just respond to disasters and emergencies, but also play key roles in alleviating health inequalities and supporting displaced or migrating people. With this wider remit, the British Red Cross needed to be able to expand its use of data analytics and data visualisation tools to help it optimise the allocation of its resources and deliver relevant, efficient services to those most in need.

The Solution

The British Red Cross had been using Esri's ArcGIS Desktop solution for many years and decided to migrate to ArcGIS Pro and ArcGIS Online to gain access to the latest cartographic tools as well as a suite of ArcGIS apps, solutions and geospatial data. This advancement in the charity's geographic information system (GIS) capabilities stimulated greater use of geospatial data within the organisation and led to the development of several brand new solutions and web apps that are now supporting the charity in achieving its strategic goals.

Alongside ArcGIS Pro, the British Red Cross uses ArcGIS Online to share data internally and with partners. In particular, the charity is increasing its use of ArcGIS Notebooks within ArcGIS Online, a cloud-based interface for conducting geospatial data analysis and visualising data in a geographic context. In addition, the British Red Cross uses ArcGIS Maps for Power BI, enabling it to create more sophisticated and intuitive maps within the Microsoft Power BI app.

The organisation is now exploring how it can use ArcGIS Hub to provide a single place where the organisation can publish all its geospatial data, making information more accessible to the whole organisation, as well as partners. "We are moving towards our goal of creating a single source of the truth and geographic data, for everyone to use," says Paul Knight, GIS and Information Management Technical Advisor at the British Red Cross.

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> " The efficiency gains delivered by ArcGIS will allow the British Red Cross to support people in crisis faster and more effectively. "

Paul Knight, GIS and Information Management Technical Advisor, British Red Cross

The British Red Cross Community Education Workshop Planning Tool, an interactive map designed to be an intuitive and easy way to see vulnerability data relevant to educational workshops delivered by Community Education, so they can be effectively delivered to areas of high need.

The Benefits

More efficient responses to emergencies

The British Red Cross has significantly improved the efficiency of its responses to domestic emergencies, such as house fires, through the use of a new web mapping tool. Created using ArcGIS Online, the tool provides staff in the Crisis Response Contact Centre with a more streamlined way of assessing the locations of response resources relative to the locations of people who are in need of urgent help. Working 24/7, staff can access all the information they need from within the app to source volunteers and initiate the most appropriate response. "The efficiency gains delivered by ArcGIS will allow the British Red Cross to support people in crisis faster and more effectively," Knight says.

Shared understanding in a fast-moving situation

At the onset of the coronavirus crisis, the British Red Cross was able to use ArcGIS to rapidly create a COVID-19 Response App and a COVID-19 Vulnerability Index map, which provided its staff, volunteers and the 230 partner organisations that form the Voluntary and Community Sector Emergencies Partnership, with a shared understanding of the fast-moving situation. As everyone could see the same data, it was easier to coordinate the activities of multiple voluntary organisations and ensure that support was provided to groups most affected by the pandemic, lockdowns or furloughs.

Targeted allocation of resources to areas of greatest need

Using the capabilities of an ArcGIS Instant App template and ArcGIS Online, the British Red Cross has been able to analyse where to position its future service provision relative to need. For example, the organisation has used public deprivation data and its own derived COVID-19 Vulnerability Index data, both hosted on ArcGIS Online, to identify where there is greatest need for workshops delivered by the Community Education Team on issues such as loneliness and digital exclusion. ArcGIS Online has enabled the British Red Cross to re-use its own powerful datasets in multiple products, allowing different users at operational and strategic levels to make data-driven decisions.

Well-informed decision making and improved reporting

Using ArcGIS Maps for Power BI, the British Red Cross has been able to augment its existing Power BI reports and gain more insight into the specific areas where it delivers services. The ArcGIS Maps for Power BI visualisation allows the organisation to combine and present complex data on intuitive maps, within a tool with which users are already familiar. The information is easier for emergency response coordinators and senior managers to understand and use. For example, the British Red Cross uses Covid-19 Vulnerability Index data from ArcGIS Online, combined with volunteer location data from internal databases to analyse gaps in response capacity.

Time freed up to develop new solutions

The migration to ArcGIS Pro and ArcGIS Online has reduced the amount of time spent on data maintenance and data sharing, enabling the GIS team to work on more impactful projects. In one recent initiative, the British Red Cross has used ArcGIS Pro to identify the optimum locations for emergency response vehicle locations and reposition them to make them more accessible to the largest number of volunteers. "Using the latest ArcGIS technology frees up our time to work with service departments and develop new solutions, so that the British Red Cross can have a greater impact on the communities that it serves,"

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