

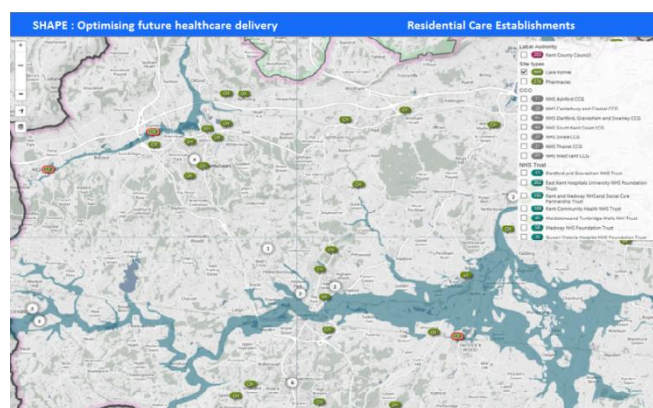


## Using the SHAPE tool to increase climate change resilience within health and social care

The health effects of flooding are significant and extensive: 3.4 million people have been affected by flooding in Europe in the last 10 years, during this time there have been 1,000 flood-related deaths due to drowning, physical injury, heart attacks, electrocution and fire. Flooding is frequently associated with acute and long-term impacts on mental health and wellbeing<sup>1</sup>. Understanding the exposure of health, emergency and social care infrastructure to flood risk will help to save money and lives, and protect business continuity.

### Challenge

- Up to 14% of emergency service stations and up to 8% of hospitals, care homes and doctor's surgeries are located within areas vulnerable to river and coastal flooding<sup>2</sup>
- Effective protection of these health and social care assets from flooding should include both physical protection of the site itself and its operational remit. Moreover, the resilience of supporting infrastructure should also be considered to ensure a whole-site approach to contingency planning<sup>3</sup>.



SHAPE Map showing location of residential care homes

### Response

- The [Strategic Health Asset Planning and Evaluation](#) (SHAPE) tool is a web-enabled application which informs and supports the strategic planning of services and physical assets across the whole health and social care system
- The inclusion of Environment Agency flood risk data into SHAPE coupled with pre-existing health and social care infrastructural data and populations vulnerability indices, provide an opportunity for further research and the identification of flood risk exposure.
- As part of Public Health England's (PHE) contribution to the [National Adaptation Programme](#), SHAPE is being used in the development of flood exposure modelling to improve planning, increase preparedness, and emergency response management across health and social care. This will aid the development of more flood-resilient healthcare facilities and potentially reduce the health impacts of flooding.
- The development of this programme of work will enable a whole system approach to commissioning, improve resilience planning and strengthen SHAPE's potential role in supporting integrated emergency management at the local level.

<sup>1</sup> World Health Organization (2013). [Floods in the WHO European Region: health effects and their prevention](#).

<sup>2</sup> Adaptation Sub-Committee Progress Report (2014). [Managing climate risks to well-being and the economy](#).

<sup>3</sup> Landeg, O. and Lawson, J (2014). Effective flood resilience in health providers: Flooding at a major NHS Blood and Transplant Facility.

## Kent County Council: using SHAPE to increase climate resilience at the local authority level

Kent County Council's Social Care, Health and Wellbeing Directorate worked with the SHAPE team at Public Health England to examine opportunities for using the application in a Local Authority social care setting. Effective strategic health and social care planning is essential for supporting, informing and managing future service design and delivery. The SHAPE application complements the range of tools used by Kent to support planning and commissioning decisions.

### Using SHAPE to inform clinical commissioning:

Kent's strategic commissioners use SHAPE as a county-level interactive mapping resource, allowing current and future planned services to be presented along with other relevant social care and health activities. This has enabled commissioners to select relevant data and match it with demographic trends for better strategic planning and design of health and care services.

Using SHAPE to model future planned housing developments and projected client numbers will inform joint service and asset planning with strategic partners across the local health and social care system. SHAPE is being developed to include voluntary sector services in Kent, catchment areas, local population needs, and local demographic profiling. This will support commissioners and health and care strategists in improving health outcomes and reducing health inequalities amongst local communities. Kent is working closely with voluntary organisations to use SHAPE effectively.

### Using SHAPE to improve community resilience and sustainability:

The Kent Health and Wellbeing Board is required to consider social, environmental and economic factors that impact on health and wellbeing. Kent partners from across health, social care and sustainability identified priorities as part of a Sustainability Assessment for the Joint Strategic Needs Assessment (JSNA), including housing, climate resilience, natural environment, air quality and planning. The JSNA has been showcased nationally through the Sustainable Development Unit of NHS England and Public Health England, and a toolkit produced to support other public sector partnerships in supporting sustainable communities. Embedding these principles within the JSNA has raised awareness (and senior support) of the critical link between the natural environment and health and wellbeing, and the importance of adapting to the impacts of climate change.

Using an Integrated Emergency Management approach the Directorate will use SHAPE to work with key partners across health and other local authorities to scope threats of flooding to premises crucial to the delivery of health and social care services. This will support the wider objective of business continuity planning and integrated care. The tool will also provide staff with the evidence needed to improve service continuity, identify vulnerable communities, map critical health and care infrastructure, and plan the deployment of health and social care staff during emergencies. The ongoing development of Kent's SHAPE work streams are helping to increase efficiency, service integration, value for money and health outcomes. Such work is closely aligned to the [Sustainable Development Unit's Strategy for Health, Public Health and Social Care system \(2014-2020\)](#).

For more information on using SHAPE please contact [Barbara Coyle](#) or [Owen Landeg](#)  
For more information on Kent's use of SHAPE please contact [Alan FitzGerald](#)

*"We have been working with the SHAPE programme on a project to develop the system for use in a local authority context, to support the Joint Strategic Needs Assessment (JSNA) and to reflect the new health and social care joint structures"*

*- Alan FitzGerald, Business Manager  
for Social Care, Health & Wellbeing,  
Kent County Council*



## The climate is changing. Are you?

A support service led by the Environment Agency  
[www.gov.uk/government/policies/adapting-to-climate-change](http://www.gov.uk/government/policies/adapting-to-climate-change)