DRAFT for review

# CHART-ING RISK FOR MATERNITY SERVICES

## Introduction

The UK Government set the target of making the England and Wales "the best place in the world to give birth" and to halve the number of stillbirths, maternal and infant deaths and serious brain injury by 2025. Part of any major improvement programme is the understanding of risks in current and proposed future services. Healthcare is an inherently complicated system that requires a systematic and holistic approach to identifying and quantifying risk.

The Engineering Design Centre at the University of Cambridge has developed CHART (Cambridge Healthcare Advanced Risk Tool). This tool produces a computational model of a clinical system that helps identify, quantify and prioritise risk. It takes risks identified by clinicians and determines how they can propagate through a healthcare system. In other words, the impact of errors elsewhere in the system. This can help inform the development of interventions that help achieve the targets that have been set.

## Approach

The CHART approach creates a model and detailed scenarios of the clinical system and pathways in a form that clinicians and other stakeholders can readily understand and respond to. These are then converted into a computational model that can determine how risks might propagate through the system and weight the importance of the risks so that they can be appropriately prioritised. This can then be reported and form the basis of the development of interventions to reduce risk and help tackle the problems that currently lead to adverse outcomes.

Cambridge Healthcare Advanced Risk Tool