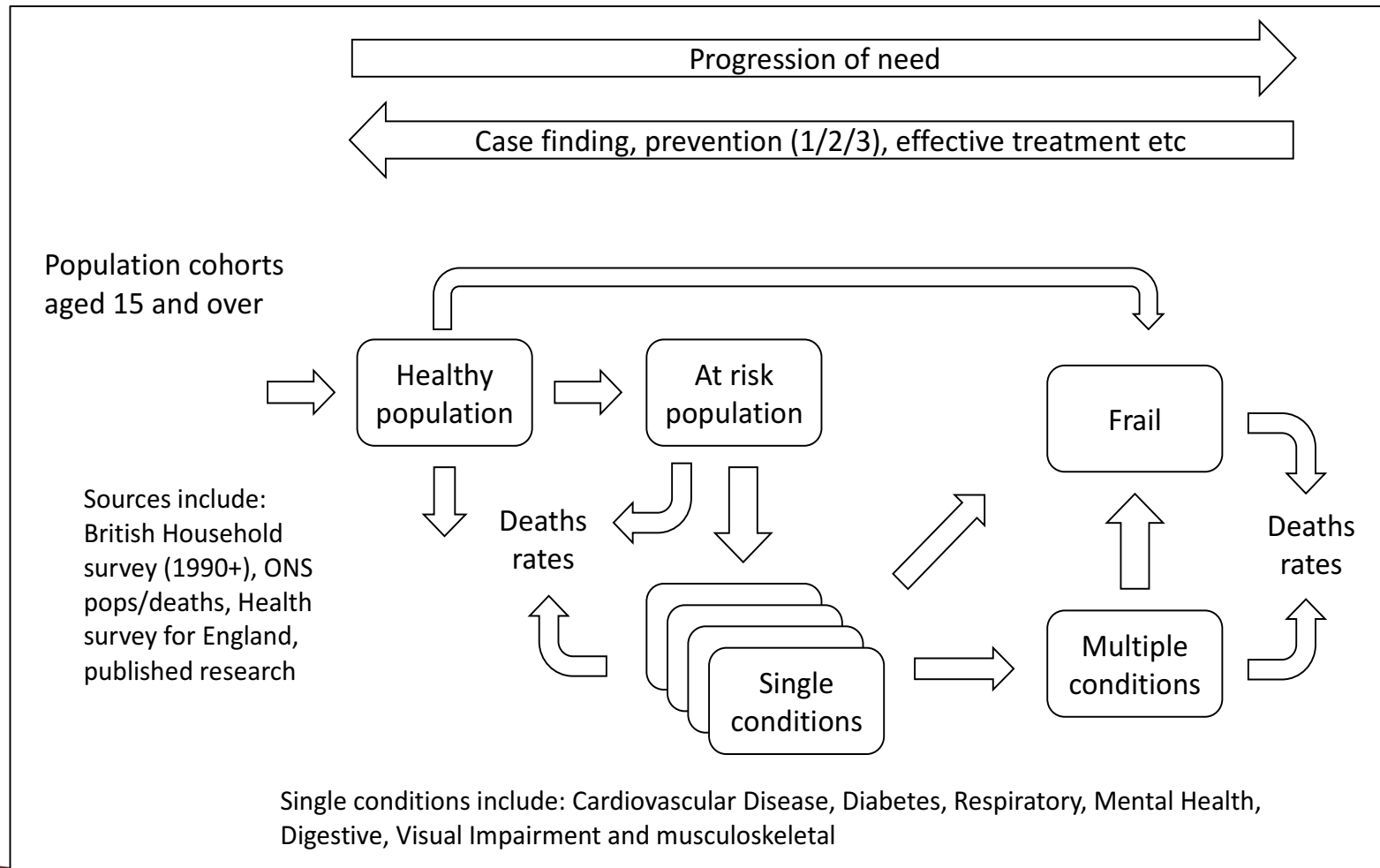


Kent population health modelling project

Health & Wellbeing Board
March 2017

The model architecture



The approach

- For the prototype demonstrator we have used national cohort studies, calibrated to Kent socio-demographics;
- We have built the model using System Dynamics software, a modelling tool available to local KCC Public Health Intelligence team and already used in a number of Kent projects;
- The model can be adapted to fit different geographies, with plans in place to apply it in the Encompass Vanguard over the coming months.

The art of the possible – at a population level....

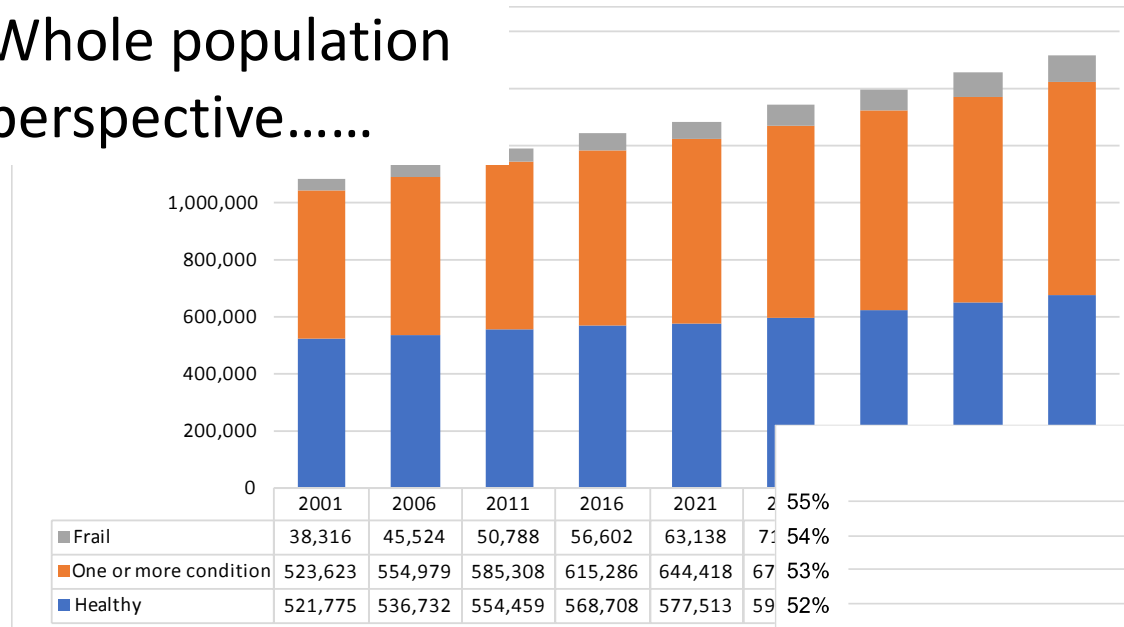


- Smoking levels are falling, but what if we were to accelerate that reduction.....
- Obesity levels are rising, but action is being taken and there is a growing public awareness of the risks, so what if these trends were reversed.....
- Hypertension can be managed effectively with appropriate, low cost drugs, so what if this were extended across the population.....
- [NOTE: these are illustrative for purposes of the current exercise, with many more potential areas of impact to explore, including wider determinants of health.....]

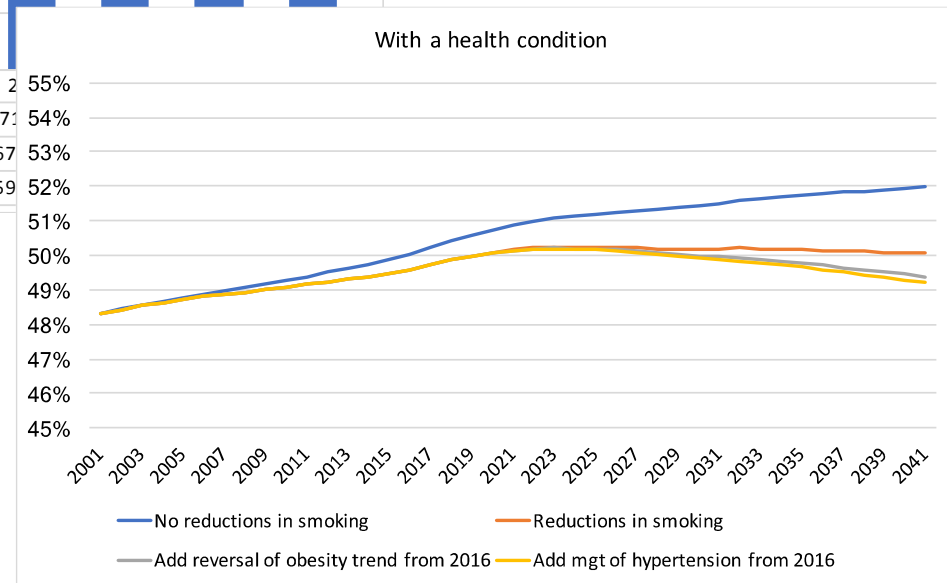
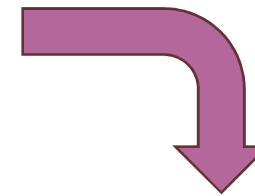
What does it mean across Kent



Whole population perspective.....



Exploring alternative scenarios.....



Demonstration

- What does it mean for local care.....

Some emerging messages from the model



- Frailty is the rising tide, living and dying with frailty needs a radically different model of service rooted in local care;
- Population measures for reducing risk factors are critical for long term sustainability;
- Due to underlying demographics associated with Kent's growing population and the 'baby-boom' generation, we need to run faster to stand still in terms of the overall 'burden or ill-health', and aspirations for improved healthy life expectancy.

Next steps

1. Adoption of System Dynamics as a key tool to unlock the potential of the KID;
2. Applying the approach to the Encompass Vanguard to explore impact on local care;
3. Development of an in-house team, coached and supported by experts in WSP, to take the approach forward;
4. Ensure a robust contribution to the revised JSNA and HWB strategy by the Autumn, and a programme of development and research using KID and other intelligence sources;
5. Engagement with other partners to socialize the approach and secure benefits across the health and care economy;
6. Informing the STP, and stretching the horizon for longer term health and wellbeing benefit.