

APPENDIX I

Review of Growth Assumptions in the DMBC

February 2019



DMBC Population Growth review

- The DMBC contains demographic growth taken from the Kent and Medway Growth Infrastructure Framework (GIF). The framework draws together information and data from a range of sources, including district local plans, Infrastructure Delivery Plans (IDPs) and infrastructure and service providers.
- The growth in this framework is higher than ONS as it includes all major housing developments.
- For non demographic growth, figures have been derived from monthly activity returns from primary care. Figures for the past 9 years have been analysed and a compound annual growth rate (CAGR) included.
- Both of these growth assumptions have been planned for in the DMBC.
- NB Its important to note that stroke incidence fell by almost 30% 1.48 per 1000 to in 1999 to 1.04 per 1000 in 2008 (*UK stroke incidence, mortality and cardio vascular risk management 1999 – 2008: time trend analysis from the GP Research Database. Sally Lee, Anna Schafe, Martin Cowie.*)



DMBC Population Growth review

- Activity modelling has been undertaken using the catchment for the respective stroke units and therefore includes the population (not just K&M residents) that would access each unit.
- Stroke activity has been built up from LSOA data, using stroke diagnosis codes and the Index of Multiple Deprivation (IMD) to ensure that factors such as deprivation have also been included in the predicted activity modelling.
- It is important to note that catchments for the HASU's is based predominantly on travel time to the nearest unit but has also been cross checked against current flows of patient activity where they exist.



DMBC Age related incidence review

Most recently we have further reviewed the likely impact that an ageing population might have, including modelling for multiple strokes:

- This is also based on the K&M catchment, not limited to K&M CCG's.
- It focussed on the population aged 65 and over (stroke is predominantly an age related disease) and included multiple strokes.
- The study suggests the stroke activity could climb to 4,370 by 2040/41. This would continue to be accommodated by three Hyper Acute and Acute Stroke Units across Kent and Medway as the suggested maximum volume for a successful unit is 1,500 patients.
- This study has assumed no further impact of prevention or developments in modern technology which are likely to reduce this figure.

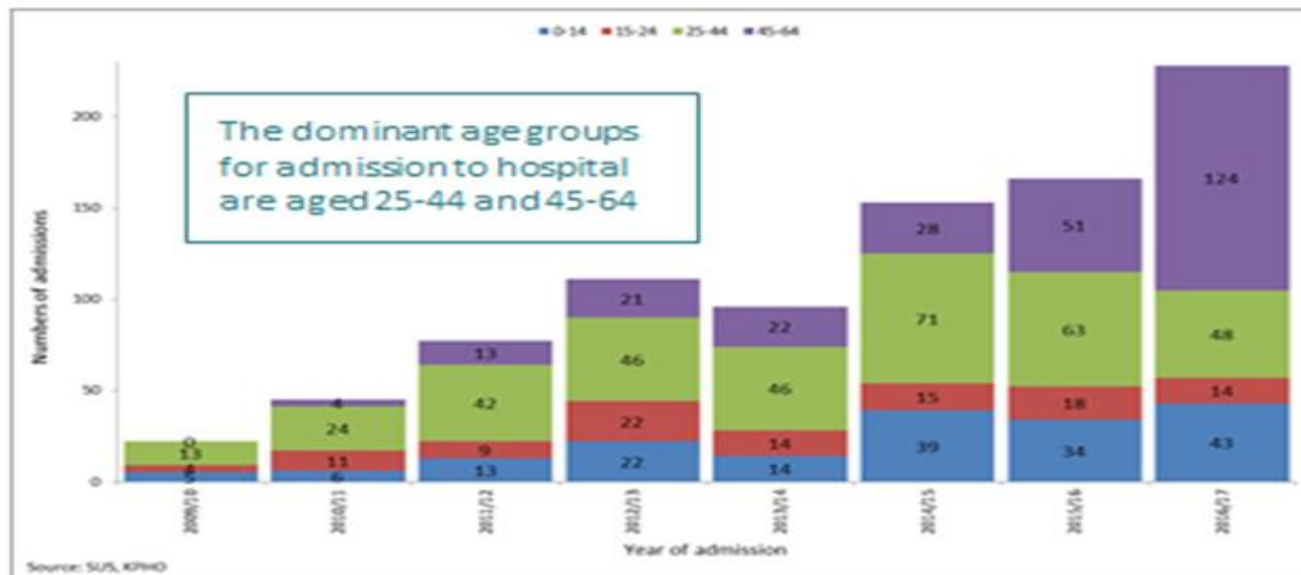


Housing Growth Impact – an example

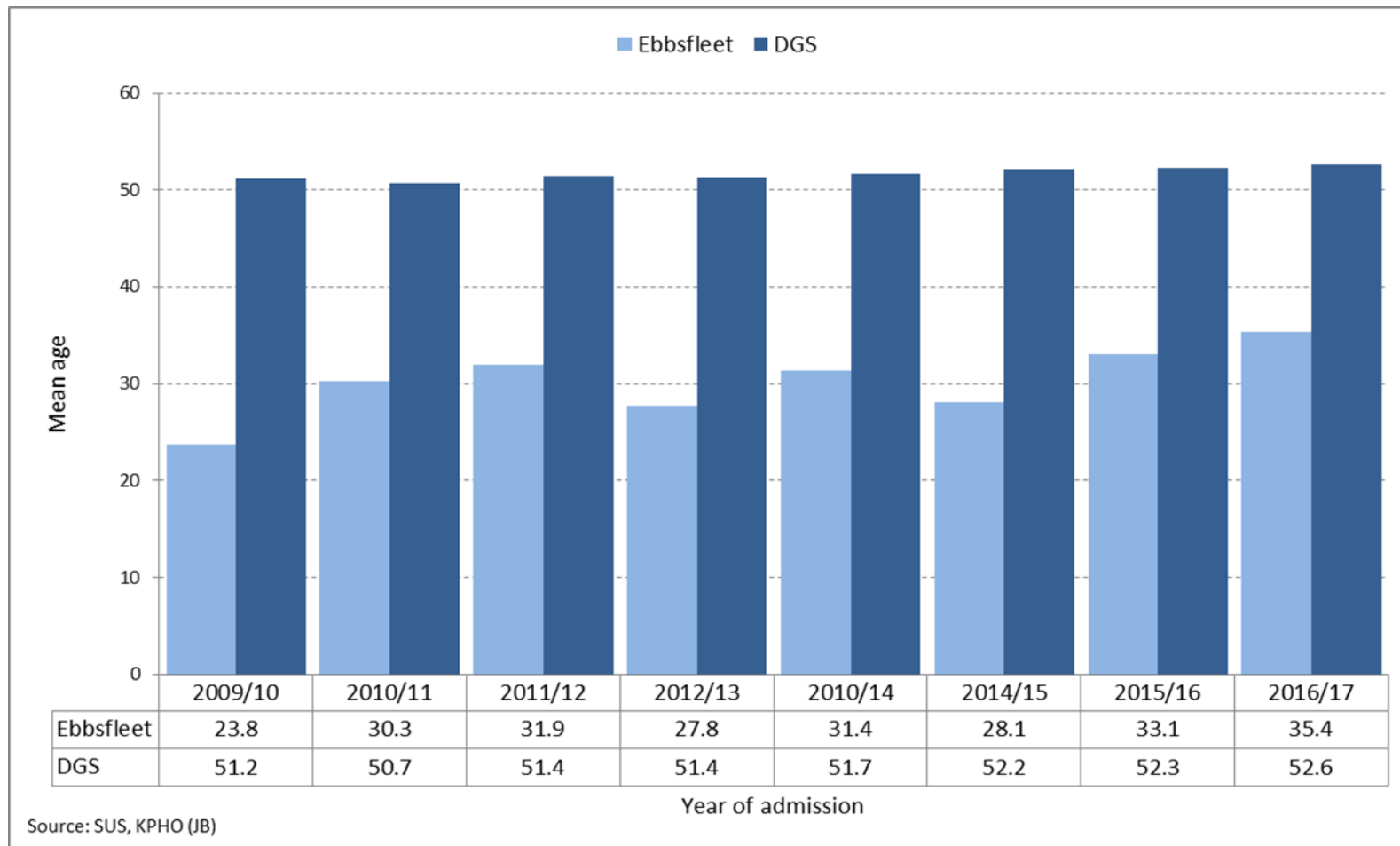
- We have specifically reviewed the actual admissions from the largest new development (Ebbsfleet) which will bring around 15,000 new homes by 2035.
- We sought completed postcodes from the Ebbsfleet Development Corporation and searched for all hospital activity coming from those postcodes (Castle Hill and Springhead Park).

Hospital admissions for residents of Ebbsfleet Garden City, 2009/10 - 2016/17, by age band

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- The profile of admissions is strongly weighted to the younger population with no admissions aged 75 and over in 2016/17 and only a handful aged 65 and over.



Summary

- The DMBC has modelled predicted activity on the a broad range of data and in line with other county level planning tools (GIF, ONS, actual activity over time).
- The modelling includes those areas outside of K&M that will use stroke services.
- It has also included the potential impact of growth of the ageing population for the K&M catchment. The findings were in line with a European study and have been built into the DMBC.
- A review of substantial new housing has demonstrated that this is not having an impact on the numbers of strokes as the demographic in those communities tends to be the younger population.

Overall the DMBC reflects a robust and up to date review of current and future demand which will be served by 3 HASU's.

The Stroke Network will monitor all aspects of operation of the units and report yearly to enable future changes to be managed.

