Paper presented to:	Kent and Medway Joint Health Overview and Scrutiny Committee
Paper subject:	Kent and Medway Hyper Acute/Acute Stroke Services Review.
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Purpose of Paper:	To update the JHOSC on the progress of the Kent and Medway Stroke Hyper Acute/Acute Review; to consult on the emerging options and next steps.

Kent and Medway Joint Health Overview and Scrutiny Committee briefing

April 2016

Kent and Medway Stroke Services Review.

1.0 Introduction

The Kent and Medway Stroke Review commenced in December 2014 following concerns about performance and sustainability across the seven hospitals currently treating stroke patients.

This review reflects a series of reviews across the country including regionals reviews in Surrey and Sussex. In most cases these reviews are either complete or near completion.

The aim of the stroke reviews are to ensure the delivery of clinically sustainable, high quality stroke services. For Kent and Medway there is a

clear need to ensure that the solution meets the needs of the population for the next 10 to 15 years, and to ensure accessible high quality hyper acute/acute stroke care to all Kent and Medway residents, 24 hours a day, seven days a week.

This does not currently exist across the county and the acute stroke units in Kent and Medway do not comply with the national best practice.

The new Kent and Medway model will support the achievement of the key clinical measures recorded through the Stroke Sentinel National Audit and in particular those indicators within the acute domain. These clinical measures support the delivery of positive patient outcomes.

Central to the review and the final recommendations is for a positive health impact for patients including improved outcomes, communications and support, and for consistent good practice across Kent and Medway.

Currently there has been some improvement in performance across the pathway, in some units however this is not consistently evident particularly in the key acute indicators.

Workforce poses a significant challenge reflecting the national and regional picture, in particular stroke consultants and nurses
Currently across Kent and Medway there is a shortfall of 29.5 consultants against the recommended 42 required for 7 units. This reflects the British Association of Stroke Physicians (BASP) recommendation of 6 consultants per unit. This allows the consultants to safely cover the rotas, working one in every 6 weeks out of hours.

The Case for Change was approved by the eight CCGs in 2015 and agreement made on the direction of travel; to develop options for resolving the current performance and sustainability issues.

The Case for Change has been shared with the Kent Health and Overview Scrutiny Committee (HOSC) and the Medway Health and Adult Social Care Overview and Scrutiny Committee (HASC) and is publicly available on the K&M CCG websites.

2.0 Review Options appraisal process.
The review moved into an options appraisal process following agreement of the Case for Change.
The review has built on national recommendations and best practice with the aim of delivering the key components of good quality stroke acute care. This includes;

- Rapid access to diagnostics, specialist assessment and intervention.

- A specialist workforce treating the right number of patients available 24 hours a day, every day.

A clear decision making tree has been developed reflecting the national guidance on reconfiguration of Stroke services and agreed through the Clinical Reference group and the Programme Board.

As previously reported to the JHOSC, phase one appraisal considered eight possible options focusing on the key areas of workforce, travel times and patient numbers/need, and reduced the long list to a recommended short list

Detailed appraisal of 3 options (3,4 and 5 sites) has been taken forward. Modelling the geographic configurations is underway however only those that can meet the agreed criteria and in particular cover the whole K&M geography within the required travel times will be considered.

Phase two reviewed the 3 options against a set of red flag criteria, further building on the phase one criteria, reflecting the achievement of positive health impacts and nationally recommended best practice.
The red flag criteria were agreed through the Programme Board and aligns to the recommendations within the national stroke configuration guidance. They were also agreed by the CRG, with the exception of the activity volumes

Red Flag criteria;

- 7 day consultant cover
- 7 day therapy services (physiotherapy/OT/SLT)
- 7 day stroke trained nursing staff with adequate senior staff in skill mix
- BASP and SE Integrated Stroke specification workforce levels
- Min/max activity; volumes; >600….<1500 confirmed stroke patinets.
- 45 min travel times *(95% of pts)*
- Meet 120 mins call to needle time for 100% of eligible pts.
- HASU sited on a HOT ED site; *(A HOT medical take to be in place at the units ED)*
- 24 /7 CT imaging provision *(timely access to 24/7 imaging)*
- Critical co-dependencies as noted within the SE Clinical Senate report
- Financial indicators re viability

Alongside the red flag assessment, work has continued on bed modeling, activity/patient flows and quality and equality impact assessment.

3.0 Programme Board Challenge session; March 2016
The initial findings of the red flag assessment were considered at a Programme Board Challenge session in March 2016.

The challenge session operated as a panel with ‘evidence’ provided from a number of sources. This included the findings of the red flag criteria and the strengths, weaknesses and opportunities and threats of each option.

The clinical reference group presented their feedback on the options including their key areas of concern/challenge.

There was feedback from the patient public engagement work including an individual stroke champion identified through the Stroke Association, who provided a personal perspective as well as feedback on her experience on the engagement activity itself
JHOSC representatives also attended to observe and provided their perspective of the review to date.

The Programme Board agreed at the end of the Challenge session that the five site model appeared extremely challenging from both a workforce and finance perspective.

Whilst the Programme Board recognised that each option posed workforce challenges, the gap and the history of recruitment make the 5 site model an unlikely option going forward. There a understandable public concerns in relation to travel and some local clinical concerns re keeping stroke services local. In recognition of this, the programme board is currently reviewing the workforce and financial evidence to balance the 5 site option with the ability to deliver the required health outcomes. This includes inviting workforce options from local clinicians and consideration of existing rehabilitation pathways.

The three site model provides the best financial and workforce option however there were concerns regarding the capacity required at the sites and resilience within the system, including impacts of winter pressures. The three site option may also create difficulties for existing staff in relation to travel times and possible increased attrition.

The Board agreed to review the workforce issues for the 5 site model including asking the clinicians to detail possible options to deliver a 7 day service. There are also discussions underway with each hospital trust to look at workforce plans and the capacity and resilience issues.
The review has moved to consider the geographic options and impact on travel costs/journeys for relatives and staff and the impact for non stroke patients. The impact of increased/reduced activity on Trusts and in particular Emergency departments and medical beds is being reviewed.
Modeling to develop the optimum length of stay and rehabilitation pathways required is also underway.

3.1 Headline findings to date.

- All options meet the 45-minute travel time for 95% of patients, indicator

- The ability to deliver 7 day consultant led services in any of the options is driven by the available workforce. This is a key limiting factor and consultants in particular are a significant workforce gap.
- All options will have gaps in consultant numbers and will need development of workforce models to address the gap particularly in the short term.
- The new model of delivery should attract the enhanced tariff for the providers (Stroke best practice tariff) helping to address the impact of the cost of the service. However each option has a cost pressure (as does the existing model), this reduces as the number of sites and therefore the number of consultants required reduces.
- There are longstanding consultant vacancies, which further increase the gap.
- Nurse and therapy numbers relate to bed numbers so do not alter with the number of sites however the ability to cover sites over 24 hours may be impacted with greater site numbers

5 site model;
Popular with some of the public and clinicians
Does not meet minimum recommended activity volumes
Biggest consultant gap
Largest financial gap

4 site model;
Popular with some of the public and clinicians
Just meets minimum volumes
Improved financial position

3 site model;
Lowest workforce gap
Meets the recommended min/max volumes
Least popular with public and some clinicians
Concerns re. capacity in bed numbers and ED activity
Concerns re. resilience across the total health care system.
Whilst this meets the clinical travel times indicator this will increase relatives and staff travel times.
May be the best financial position but only if the number of consultants (6) can manage the bed numbers effectively.

Public/patient feedback.
There has been extensive engagement through a programme of Listening Events, a survey, focus and deliberative vents. There has also been work with the Stroke Association and stroke champions and this has illustrated a clear recognition of the need to change.
Healthwatch have observed and supported the process and reflected that this has been a robust and open process.

The feedback shows support from patients and the public, reflecting that 'no change is not an option.'
There is a recognition and acceptance that this may mean longer travel distances in order to get the right care and outcomes. A key priority is to have access to specialist stroke care over 7 days, as close to home as possible.
There are concerns for travel times for relatives and good local rehabilitation services are a key requirement.
The patient representatives at the challenge session clearly articulated that the current position is not acceptable and that the priority must be to ensure we can deliver good acute care particularly in the first 24 hours to ensure the best possible outcomes as soon as possible.

Clinical reference group feedback.
The CRG have considered and agreed the Red Flag criteria with the exception of the recommended minimum and maximum activity volume numbers.

A key concern of the members is the ability to recruit staff and the risk of staff leaving the service if their local unit closes. This will increase the workforce gap.

The need to ensure effective rehabilitation pathways is clearly articulated by the CRG members.

The group highlights the need to develop the clinical pathway to address the issue of stroke mimics who do not need admission to a stroke unit, ensuring that they are safely cared for. This may result in increased transfer journeys back to local hospitals for these patients and an impact on medical beds in the receiving hospital. Clear transfer and treatment protocols will need to be in place for non-stroke patients.

Additional Clinical concerns

The Programme Board received a letter from a number of consultants immediately prior to the Challenge session. This was also sent to CCG Accountable Officers and the JHOSC Chair and Vice Chair. In later discussion, the Programme Director was advised that the views expressed in the letter did not represent any Trusts' formal position but were the views of individual clinicians

The letter raised concerns that the process has not duly considered the possibility of continuing to deliver acute stroke services from the existing 7 sites.
It noted that the needs of and impact on non-stroke patients needed to be duly considered. There were a number of areas of misunderstanding/inaccuracy, these related to:

- Understanding the impact of the current Surrey and Sussex reviews,

- The impact of the K&M review on the Sussex and Bexley patients using Kent facilities
- Consideration of future technology of Kent and Medway services.
- Alignment to the current strategic plans and in particular the Urgent and Emergency care programme.

The Programme Board has responded to the consultants concerned, reflecting the process and agreed criteria used to consider options and reassuring them that many of the points they have raised either have been or are under consideration.

Reassurance has been given on the points above, in particular.

- There is a Kent Surrey Sussex working group bringing together all three stroke reviews and this demonstrates no impact for Kent and Medway on the neighboring reconfigurations. The border patient numbers have been included in the K&M modeling.
- The pathway for non-stroke patients and impact on ED/medical beds is being worked through the activity modeling and will be part of the clinical delivery model and provider capacity assessment.
- The future development of a thrombectomy unit in Kent and Medway has been recognised and the co-dependencies will ensure that at least one hyper acute unit will be co-located with the appropriate services. The Chair of the CRG is working closely with the national leads and NHS England South (south-east) cardiovascular network to develop this service model.
- The plans for urgent and emergency care are being considered within the Stroke review as they emerge. The stroke review has and will continue to be discussed at both the STP and Urgent and Emergency care Boards and cited in the forthcoming STP submission.

The Programme Board has repeated the invitations to attend the clinical reference group and in particular for them and the CRG to consider the possible workforce solutions.
The Chair of the CRG has subsequently spoken to a number of the signatories to get a greater understanding of concerns and provide reassurance.

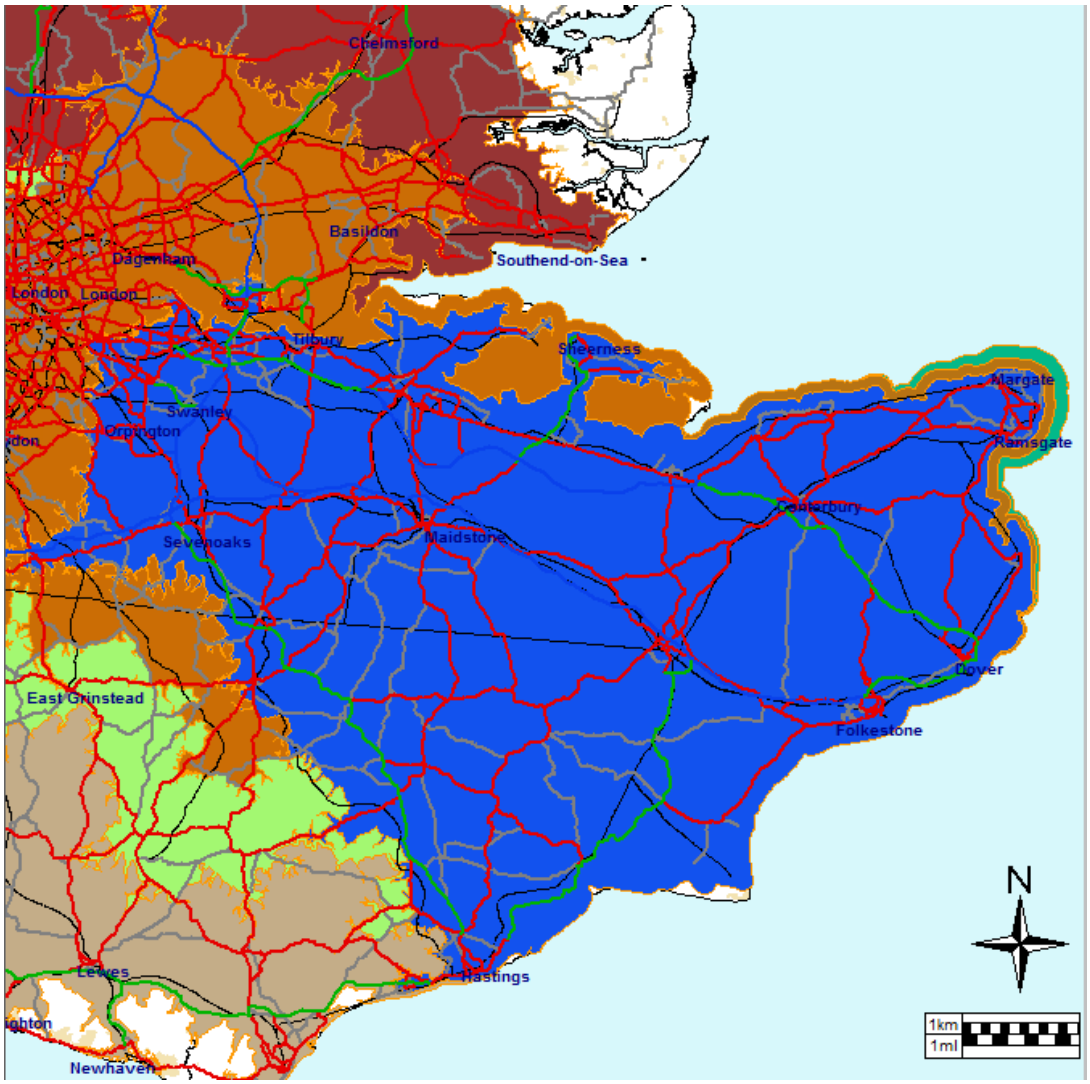
5.0 Key Modeling Areas

- **Travel/Access:**

The SECAmb isochrones (appendix 1) illustrate that all of the options (5,4 and 3 sites) can meet the 45 minute travel time indicator. There are a number of geographic configurations within each site option all of which meet the travel criteria.
The isochrones used measure standard travel times across the county including speed limits. Stroke patients are transferred to hospital via blue light ambulance.

The qualitative considerations show that the city centres create the main delays. There are clear protocols in place to manage Operation Stack from an ambulance perspective, although this does not include hospital staff.
The key areas impacted through travel changes are the Isle of Sheppey particularly the south of the Island, the Hythe, Romney Marsh and Dymchurch area and the Isle of Thanet.
With the exception of Thanet these areas have sparse population and low incidence levels.

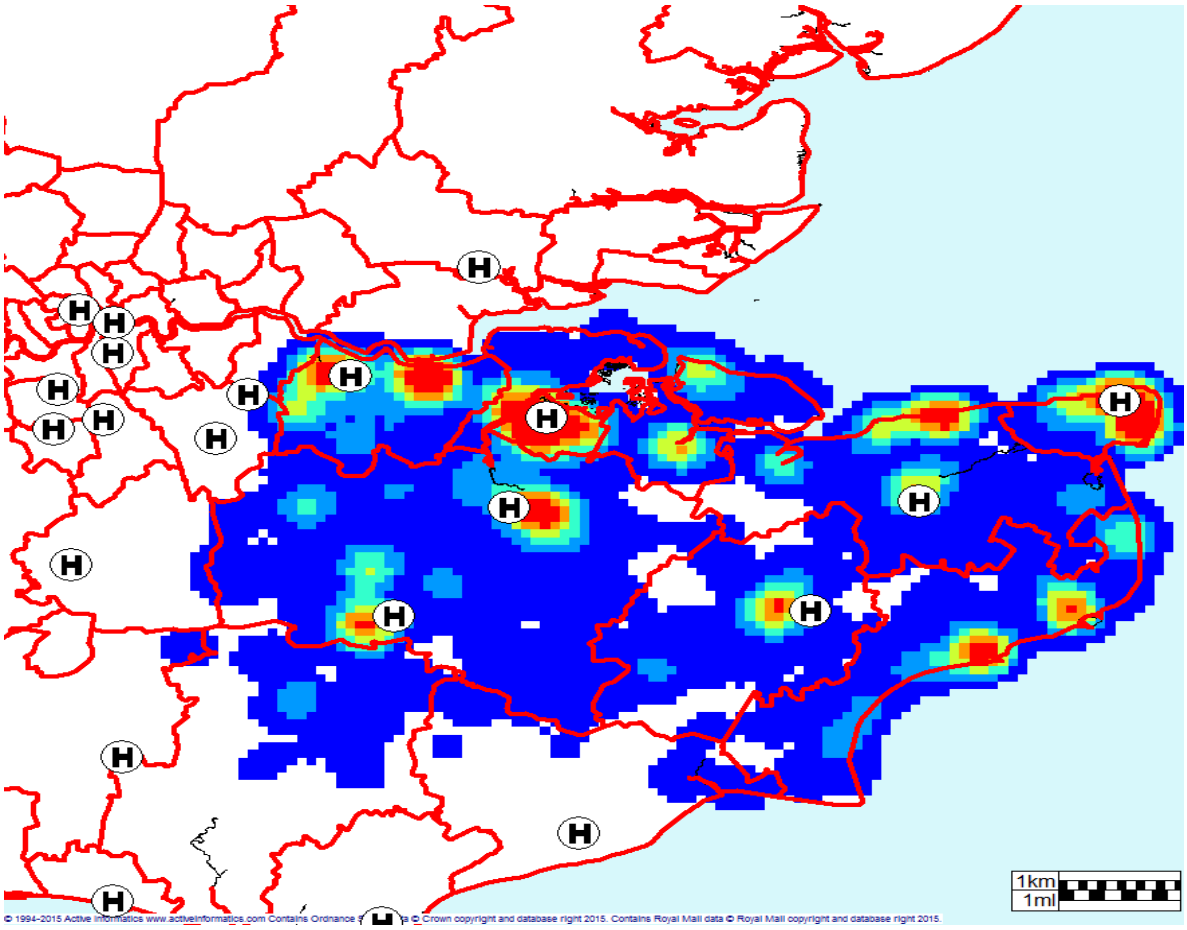
The diagram below shows an overview of the 45 minute travel time (isochrones) from the Kent and Medway hospitals. (appendix one shows the travel times from each K&M hospital; the blue areas show coverage over 45 minutes)



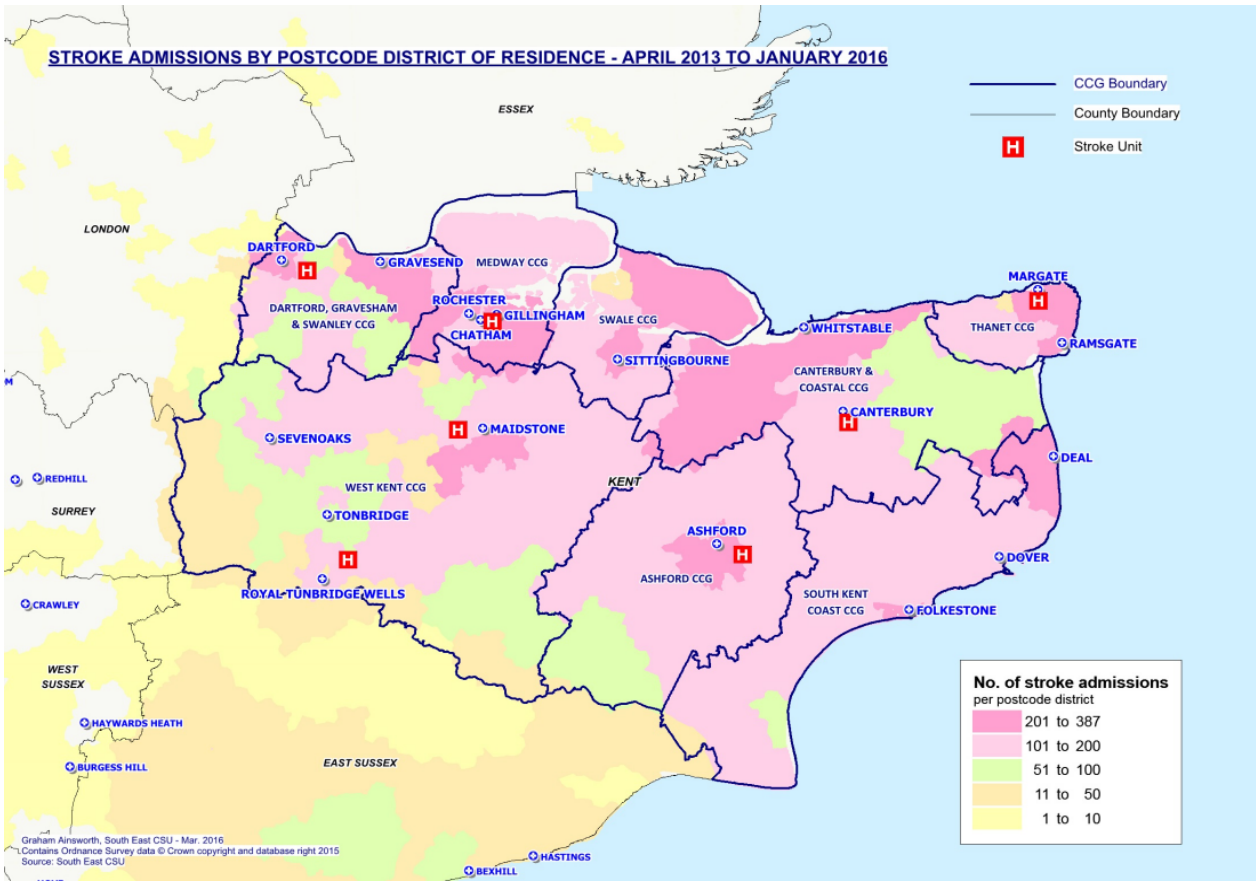
Private travel times by car reflect the isochrones however as the review considers the potential geographic sites, mapping is underway of the impact in relation to public transport and cost for relatives and staff.

The appraisal process has considered the patient flows alongside the travel times. This information is also being used when mapping the options and geographic configurations. This includes mapping the number of ED attendances both stroke and non stroke and the possible number of medical patients requiring either admission or repatriation. To date this has been averaged across the site options, moving forward SECAmb are mapping the likely transfers/admitting sites to get an accurate picture of both capacity and travel times.
The heat maps demonstrate the highest areas of activity for stroke admissions by post code and by ambulance transfers. These show that the main areas of activity surround Medway, Gravesend, Thanet and Ashford. This data will be used alongside the normal ED activity to determine impact on individual units.

The diagram below is the SECAmb map illustrating the hot spots where SECAmb have transferred stroke patients from and shows the K&M hospital sites. (April 14 to September 14.)



The diagram below illustrates the stroke admissions by post code for the period April 2013 to January 2015.



- **Patient Activity:**

The review has identified that there are circa 2,500 patients admitted to Kent and Medway hospitals per annum. Around 140 patients come from the borders of Sussex and Bexley. Activity has generally plateaued over the past few years, reflecting the national and regional picture of reducing stroke incidence. Projections show little change is anticipated in the next 10 years, even with the population /demographic increases anticipated in some areas of Kent and Medway.

The number of confirmed strokes is almost equal between East (1211) and West/North Kent (1289) despite considerably higher populations number in W/N Kent. (1,088 vs 658)

When determining the bed numbers required the number of TIAs and stroke mimics who appropriately require admission to the stroke unit have been included, this equates to around 35% of all admissions.

The Ambulance Trust data shows that around 35% of all transfers to hospital with stroke symptoms are not stroke patients.

As the geographic configurations are modeled this activity is included in the modeling and clear pathways will be identified to effectively and safely care for these patients.
As noted further work is underway to establish the average numbers and needs of non stroke patients

The review has undertaken 3 activity audits completed by each admitting unit and SECAmb to triangulate the data sets.

The Finance/activity modelling group has reviewed actual patient spells and bed usage and identified referral source by postcode.
The activity heat maps demonstrating the activity/referral hot spots are being reviewed to determine the financial and activity impact on receiving Trusts.

- **Workforce:**

The review has used the BASP guidance, and the South East Coast Integrated Specification and agreed SE standards.
These include;
A 1:6 consultant rota and minimum of daily ward rounds, consideration of twice daily ward rounds.

Profession	Per HASU bed	Per ASU bed
Nurses	2.9 (80/20 trained untrained spilt)	1.35 (65.35 trained/untrained spilt)
Physiotherapy	0.146	0.168
SLT	0.068	0.081
OT	0.136	0.162
Dietitian	0.025	0.025
Clinical psychologist	0.025	0.030

Ability to deliver 7 day services across all MDT professions has been considered and will form part of the provider capacity assessment.

A gap analysis has been undertaken in each Trust for each profession and is updated regularly, although there has been little change.
Average cost has been identified for each profession to inform the financial planning and assessment of both the current and future financial position.
Qualitative feedback has been given re current vacancy rate and recruitment history. This has been considered by profession at each Trust.

General feedback shows consistent difficulty recruiting to stroke consultants for a number of years with long standing vacancies.
All K&M Trusts have difficulty recruiting generally to nurses particularly at band 5 with international recruitment underway in most hospitals.

Senior and specialist nurses are trained from within and vacancies are easier to fill.

All hospitals have a stroke competency framework in place and have a level of specialist nurse or therapy support at senior level coordinating the service as part of their role.

Recruitment to therapy posts varies across the county and varies for different professions. There is a sense that lessons can be shared and recruitment to this staff group may be easier but will/may be impacted by centralisation.

Risk assessment shows that the current stroke medical workforce supports general and geriatric medicine and the impact of this is included in the provider capacity appraisal.
Experience from other stroke units is being used to develop the consultant job plans.

There are also concerns re the level of attrition across all professions in particular stroke consultants and nurses.
The gaps in general and geriatric medicine may mean that some stroke consultants who do want to move can take on full time roles on these areas. This can result in stroke only consultant posts being available this may aid recruitment.

- **Financial planning:**
  The financial and activity modeling group have considered the cost of each option and reviewed against the financial envelope determined by the stroke tariff. The costs are predominantly driven by the workforce and primarily the consultant costs.
  Analysis shows that the five site model is the most financially challenging, this will cost approximately 1 million pounds more than the 4 site model due to the additional consultants required for the same total number of beds
  Analysis shows that there are a number of patients staying in hospital for long periods and analysis of the available rehabilitation services is underway to ascertain the gaps and opportunities to more effectively support patients.

  Currently the group is considering the potential geographic options to confirm the activity levels and the individual financial envelopes.
  The group is working with the individual Trusts to determine the impact of any changes either in increasing or removing stroke activity both on finances but on the Trust and the co-dependencies)

The financial modeling illustrates that there are cost pressures currently and whilst centralisation can improve this up to a point, there will still be pressures for both commissioners and providers

- **Quality and Equality Impact Assessment**
  The criteria used to assess the options are based on national best practice for delivering positive patient outcomes.
  Each area considered is tested against the health impact for stroke patients.

  The Equality screening has shown that the improvements planned will improve health for all patient groups including the protected characteristic groups.
  The geographic configurations are being tested from a quality, equality and inequality impact perspective.
  The emerging issues relate mainly to the ability for non English speaking patients and members of the public to get emergency medical attention
  Another key issue is the impact on elderly patients, relatives and carers of longer travel times for visiting
  A key consideration is the impact on low-income members of the public, including relatives and staff on longer, more costly journeys. This will be detailed in the geographic options and trusts asked to develop possible mitigating actions.

  The issue of increased travel times/costs for staff and relatives is a key concern that needs to be balanced with the ability to deliver a sustainable quality hyper acute/acute service across Kent and Medway. Where this is an issue mitigation will be considered and developed with each of the providers.

6.0 Next Steps:

- To determine provider capacity and consider delivery models. This will commence with meeting the provider CEOs and CCG Accountable Officers. This will also support alignment with the strategic transformation plans
- Ensure ongoing alignment to urgent and emergency care programme and K&M Strategic Transformation Plan.
- Complete detailed impact assessment of geographic options
- Development of clinical pathways/delivery model with the CRG, local clinicians and support from other stroke services providers and national experts.
- The RPB to consider and establish the best options for consideration and present to the CCG clinical forums and governing bodies. Final recommendations will be considered by CCG governing bodies and urgent and emergency care programme board in the summer 2016.

- Agree consultation timeline in alignment with considerations of Urgent and Emergency careand the strategic Transformation Plan.

7.0 Summary Timeline

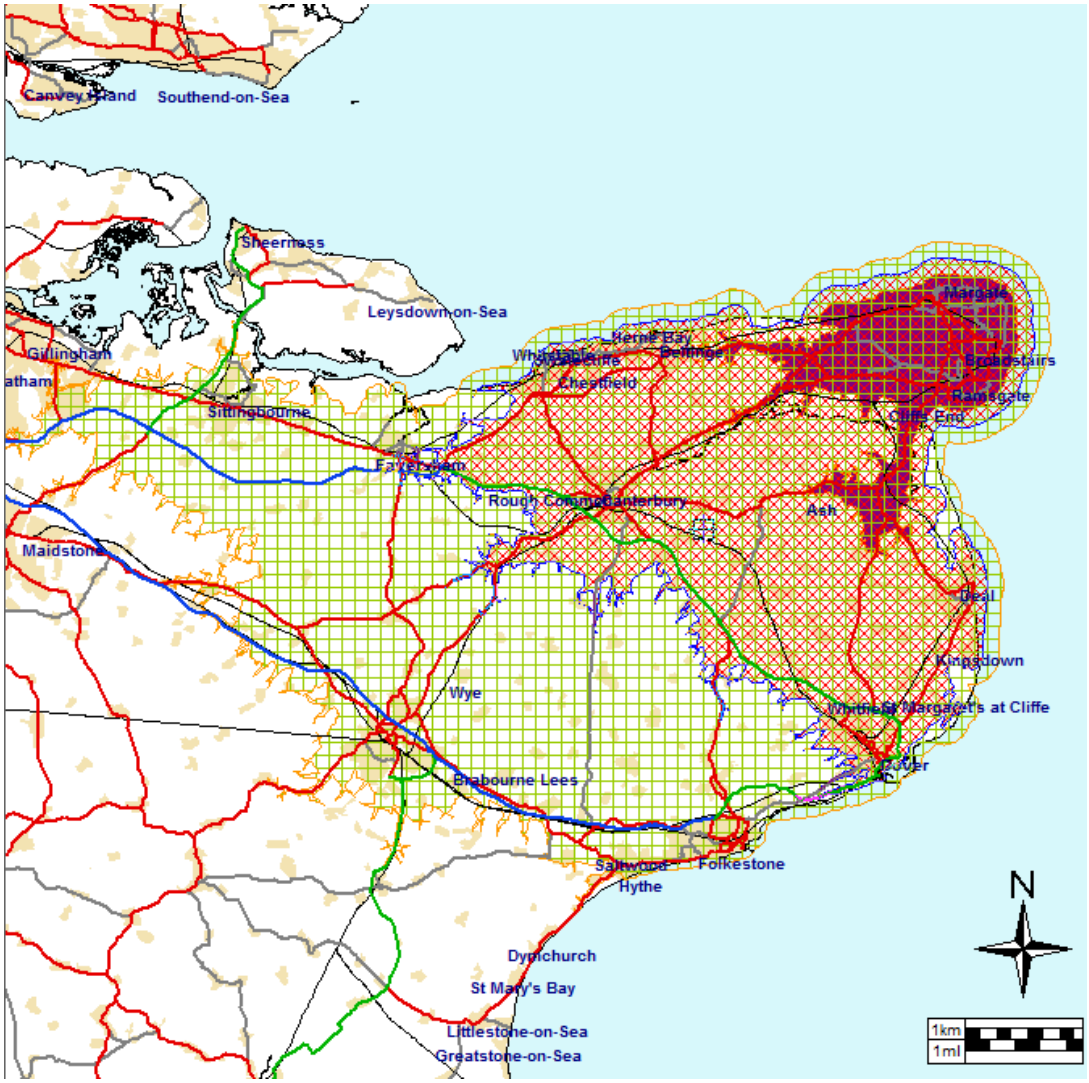
Key Action	By who	By when
Long list to short list	**Review programme board**	**December 15**
Red Flag criteria appraisal	**Programme Board**	**March 16**
Challenge session to review findings and agree next steps	**Programme Board**	**March 16**
Provider Capacity	**Provider CEOs, AOs and Programme Board**	**April /May 16**
Geographic configurations agreed and appraised	**Programme Board alongside discussions with provider CEO's**	**May/June 16**
Recommendation of short list to programme Board Presentation and discussion of recommendations to JHOSC	**SRO/Programme Director**	**June/July 16**
Final short list for consultation	**CCG governing bodies**	**July (summer)16**

8.0 Recommendations for the JHOSC

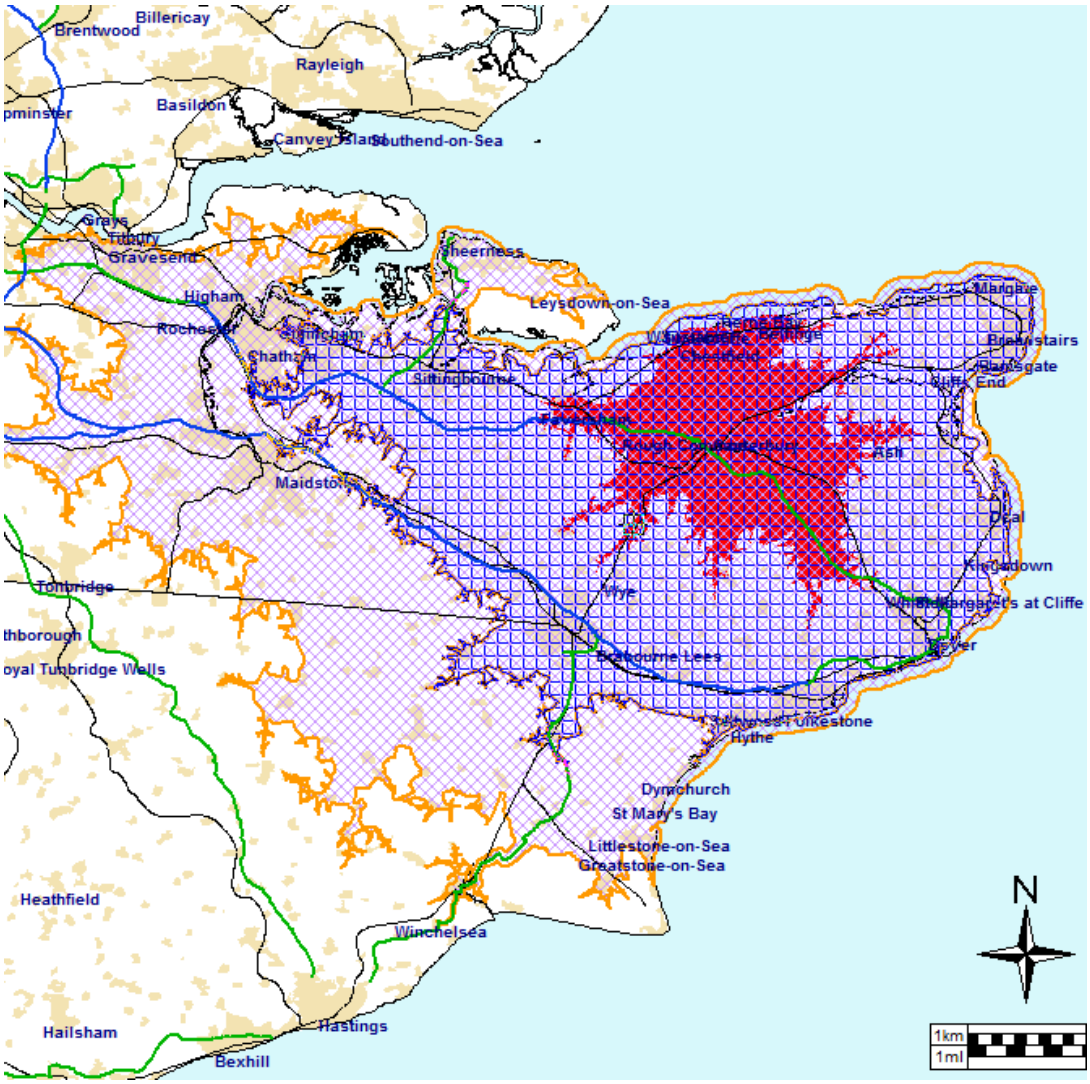
- To consider and comment on the options development and appraisal process.
- To decide if any further information is required.
- To refer any relevant comments to the Review Programme Board and request that they be taken into account, particularly in relation to decisions on the options of a 5,4 or 3 site model.
- Invite Kent and Medway CCGs to present the final options for public consultation to the Committee

Appendix One;
Kent and Medway standard road travel times form each acute hospital site (SECAmb Isochrones). The darker colours show 15 minutes travel time form the hospital, medium colour is 30 mins and the lightest colour is within 45 minutes.

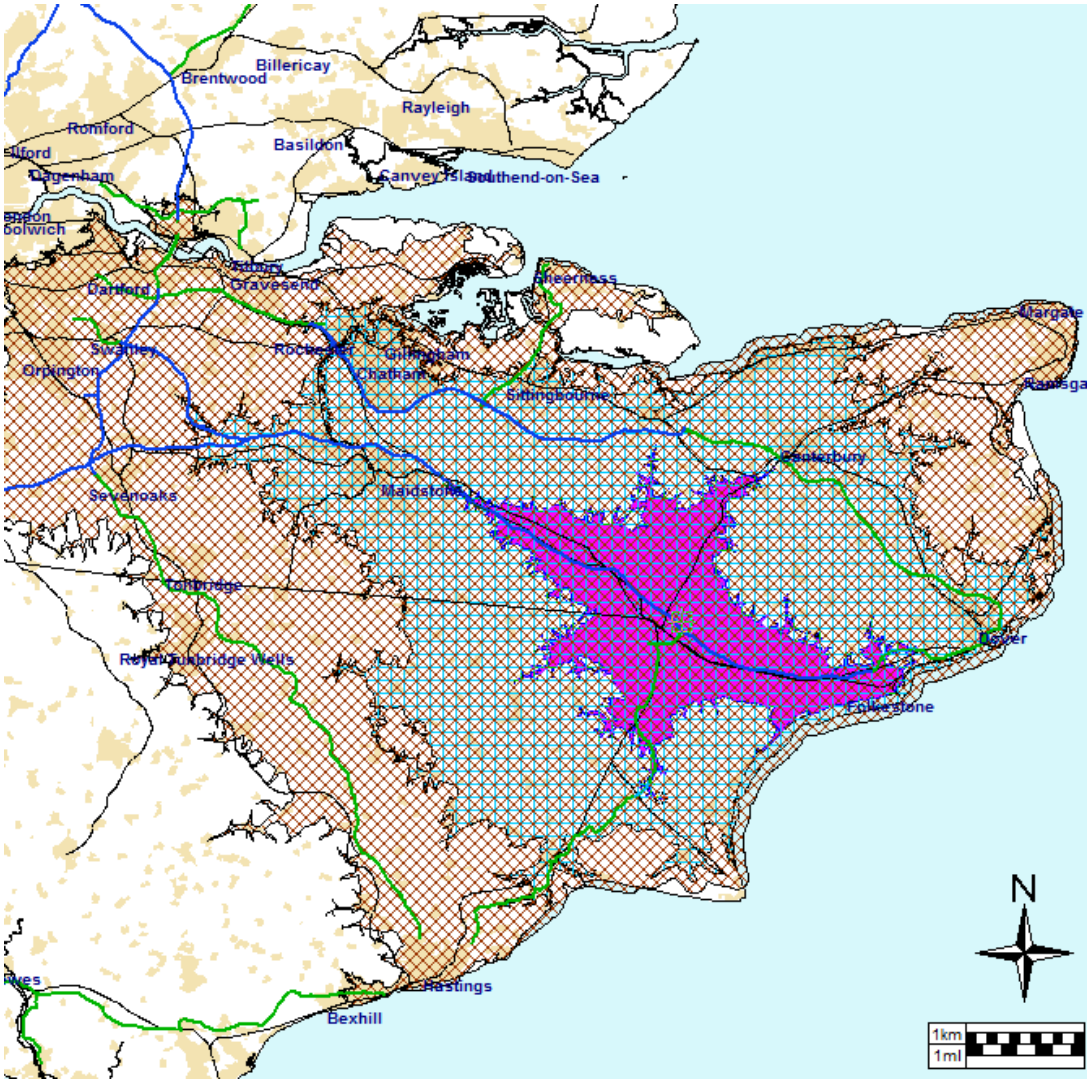
1) QEQM hospital, Margate



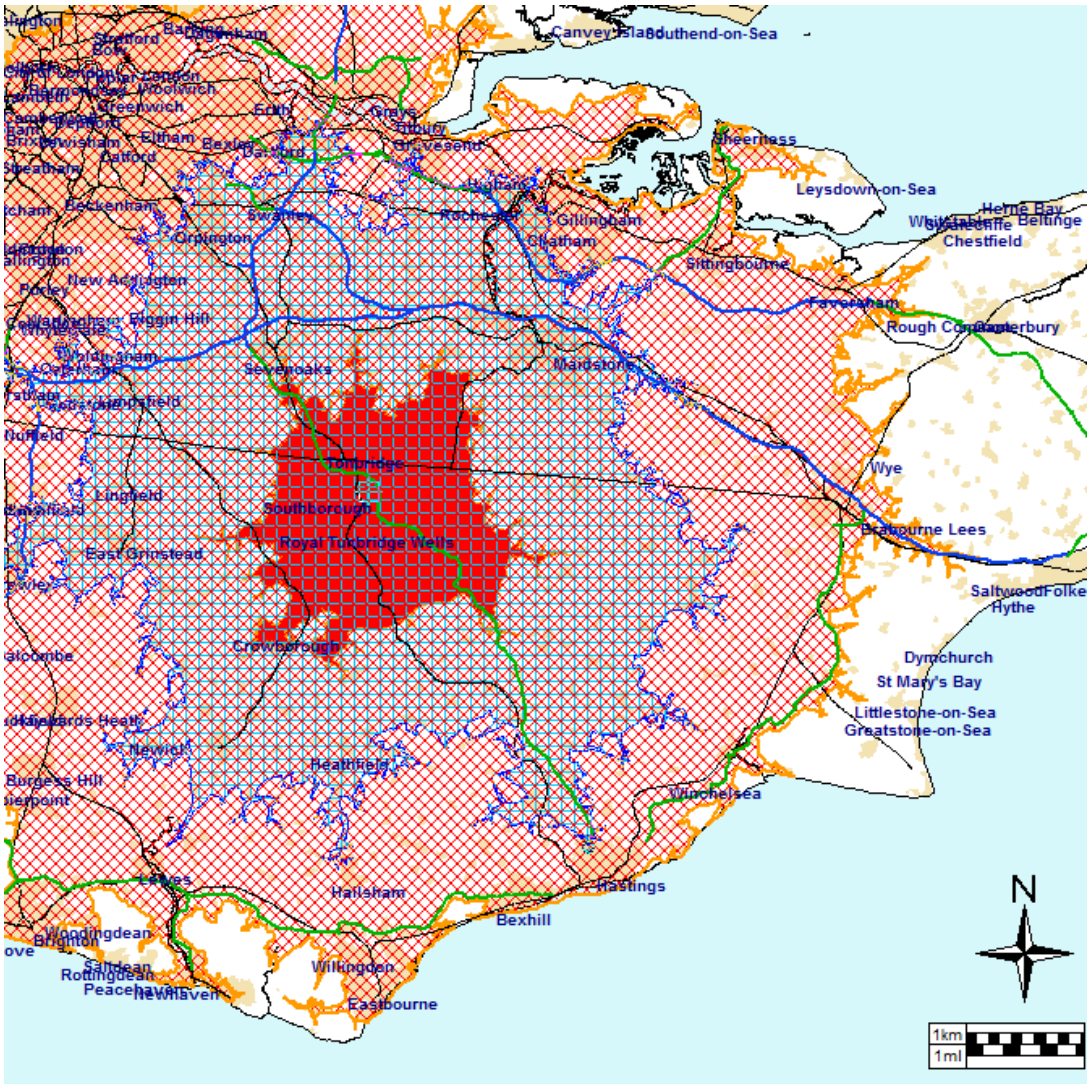
2) Kent and Canterbury hospital, Canterbury.



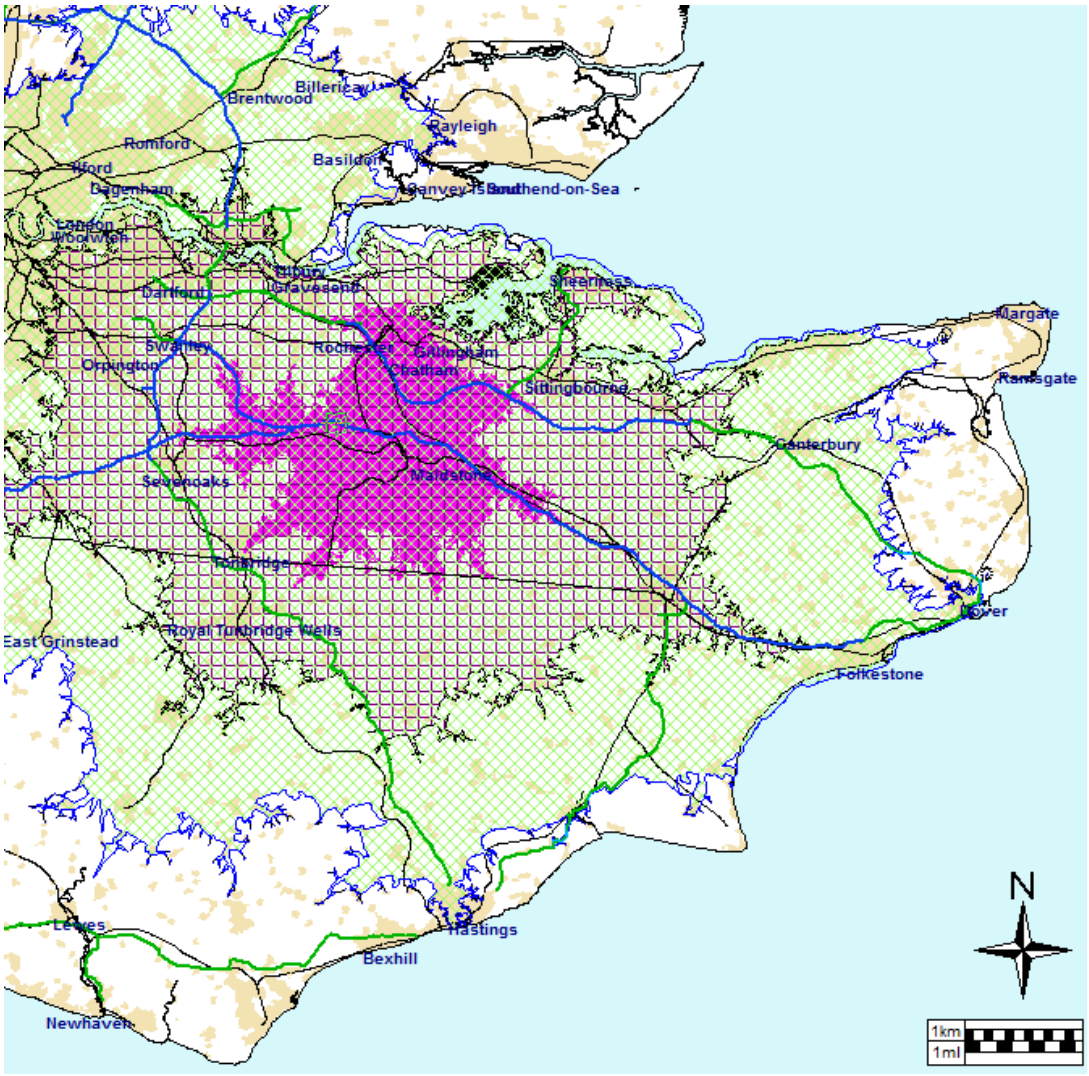
3) William Harvey hospital, Ashford



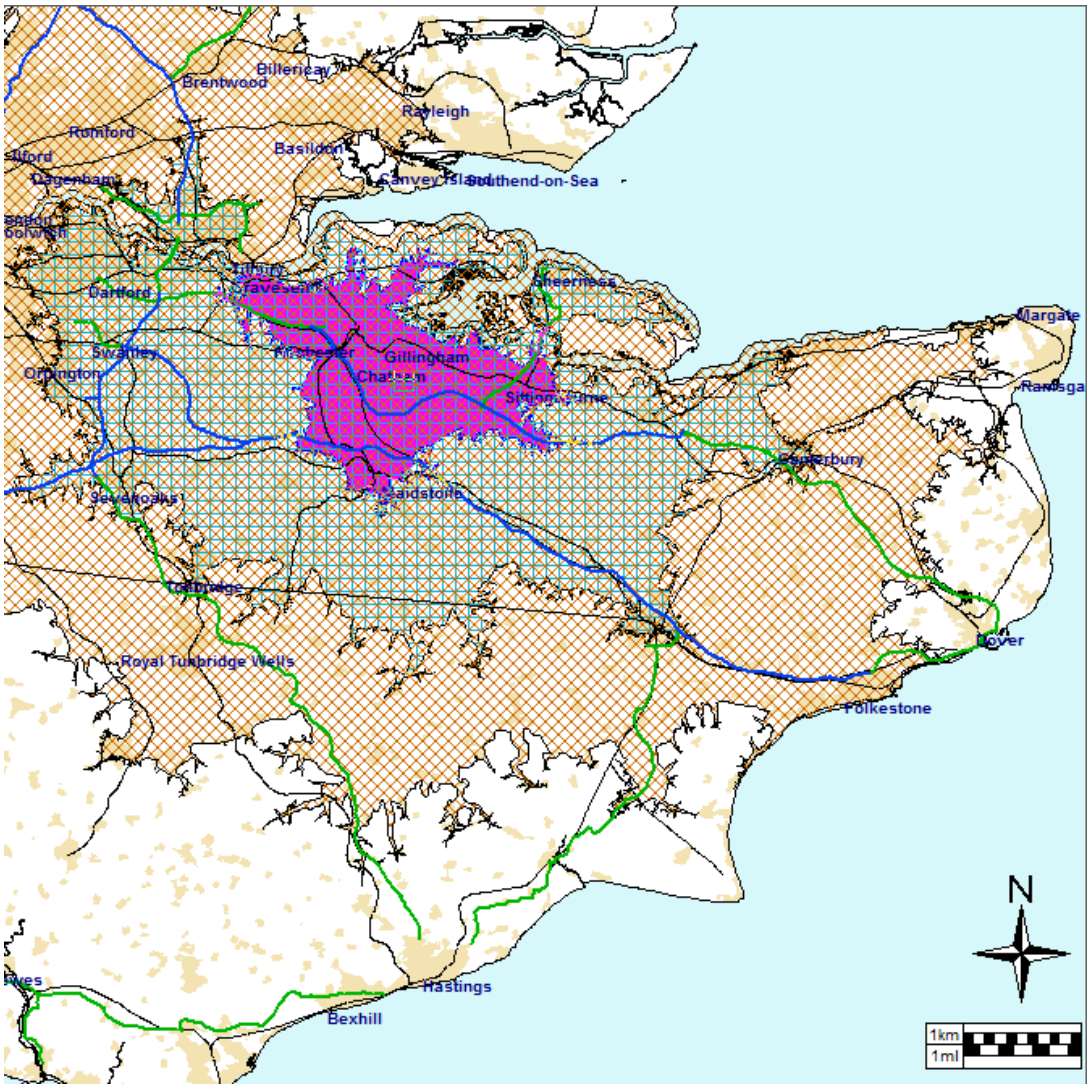
4) Tunbridge Wells hospital, Pembury



5) Maidstone hospital, Maidstone



6) Medway Maritime hospital, Medway



7) Darent Valley hospital, Gravesend.