1. Introduction
   1.1. This evidence sets out the Royal College of Surgeons’ (RCS) view on the issues facing women in surgical careers, and proposals to improve uptake.
   1.2. Traditionally, surgery has been a male-dominated career. Changing attitudes and support structures will be the key to ensuring the next generation of surgeons include a greater proportion of talented women.

2. Executive summary
   2.1. There is no hard evidence that explicit barriers exist for women who choose surgery as a career. However, comparatively small numbers of women choose surgery as a career and for those that do, few become consultants.
   2.2. Although, the proportion of women choosing surgery, and reaching consultant level is rising year-on-year the rise is slow and from a low base level.
   2.3. Finland and Sweden have a significantly higher proportion of women in surgical specialties highlighting that there are some country-specific factors for this underrepresentation.
   2.4. Surgery is a craft specialty and understandably requires sustained practical as well as theoretical training over many years. The length of training, combined with key elements of surgical training at child-bearing age, can be an important deterrent for women who may want to have children.
   2.5. Research shows that a lack of visible role models in surgery may also discourage women from considering surgery, leading them to subconsciously or consciously feel as though they will not ‘fit’.
   2.6. Through national and regional campaigns and events, the College supports women in, or considering entering, surgery, providing advice, practical skills and the opportunity to meet other women pursuing a surgical career.
   2.7. Athena SWAN offer a charter for women in science, and offer medical schools awards if they can demonstrate that they have taken steps working towards equality in STEM career progression. The College would like to see the charter extended to medicine.
   2.8. It is vital that Less Than Full Time (LTFT) surgical trainees receive the same high-quality training as their full time equivalents. We encourage Health Education England to consider how it can support LTFT trainees as part of its review of the tariff for education and training.
   2.9. Comparatively few women choose surgery as a career, despite ambition, aptitude and little direct discrimination. Women are choosing not to pursue this career due to a lack of positive role models, and/or potential concerns about work-life balance. If surgery does not become more accommodating of flexible working patterns, it will fail to attract the best candidates, male or female.

3. Women in surgery
   3.1. Statistics from the Universities and Colleges Admissions Service (UCAS) show that in 2011 55% of those accepted on to medical degree courses in the UK were women, however in the same year just 26% of surgical specialty trainees were women, and women made up only 8.7% of consultant surgeons.\(^1\)
   3.2. For female doctors who do apply to undertake core surgical training (a two year period of training in a hospital covering a range of surgical specialties) and specialty surgical training (a subsequent five or six year\(^2\) period of training in a hospital focussed on one surgical specialty) data shows a higher than expected success rate in obtaining a training post:\(^3\)

\(^1\) http://surgicalcareers.rcseng.ac.uk/wins/statistics
\(^2\) Urology and Oral & Maxillofacial Surgery are five year training programmes
\(^3\) SA McNally, Surgical training: still highly competitive but still very male, Ann R Coll Surg Engl (suppl) 2012; 94: 53-55
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<th>Female applicants to training posts</th>
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<td>Core surgical training in 2008</td>
<td>23%</td>
<td>25%</td>
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<tr>
<td>Core surgical training in 2009</td>
<td>29%*</td>
<td>31%</td>
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<td>Specialty surgical training in 2008</td>
<td>16%</td>
<td>22%**</td>
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<td>Specialty surgical training in 2009</td>
<td>13%</td>
<td>15%</td>
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*The increase in proportion of women applying to core posts is statistically significant (p<0.0001).

**The excess of women appointed over that expected from the numbers applying is significant (p=0.004).

From this it is clear that fewer women are choosing surgery as a career, despite aptitude, and for those that do choose surgery, becoming a consultant surgeon is comparatively rare. This data also shows a significant rate of attrition for women who have completed their core surgical training but have not chosen to progress their career with specialty surgical training.

3.3. A recent UK study of newly qualified doctors showed 25% of female doctors expressed interest in a surgical career as opposed to 42% of male doctors. Reasons included difficulty maintaining family life, limited flexible training, and lack of role models. Irrespective of personal career interests, 59% of male and 68% of female respondents believed surgery was not a career which welcomed women.4

3.4. By contrast, general practice - which is often considered to have more favourable working conditions - has recruited a higher proportion of women than men for many years. Since 2001 the proportion of women among general practice registrars has been 60-61%.5

3.5. However, other medical specialties with similar burdens to surgery, including out-of-hours requirements have gender ratios approaching parity at the point of entering specialty training, for example the percentage of women in Accident & Emergency is 47%, Paediatrics 42%, Obstetrics & Gynaecology 42% and Anaesthetics 40%.6 By learning from the examples of these specialties, surgery should be able to take positive steps.

3.6. Encouragingly, the proportion of women choosing surgery, and reaching consultant level is rising year-on-year78 albeit slowly and from a low base level (from 4.7% of the total in 2001 to 8.7% in 20119). The College hopes to support this continuing trend and recognises that Government, medical schools, training establishments and NHS Trusts also have a role to play.

3.7. Women are also underrepresented in leadership positions such as examiners and clinical directors, representing the need for a culture change.10

3.8. Internationally, the general trend of finding the highest proportion of women in primary care specialties or public health, and the lowest in acute medical and surgical specialties, remains the same. However, Finland and Sweden have a significantly higher proportion of women in surgical specialties (for some, women constitute 50% of the workforce), highlighting that there are some country specific factors for this underrepresentation.11

4. The challenges facing women in surgical careers

4.1. There is no hard evidence that explicit barriers exist for women who choose surgery as a career. Reports of bias in the recruitment system, or overt lack of respect once consultant

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5 Women and medicine: the future, *The Royal College of Physicians*, June 2009
9 Health and Social Care Information Centre (HSCIC) Annual Census
10 NHS Leadership Academy (Dr Penny Newman) *Releasing Potential: Women doctors and clinical leadership*, 2012
status is reached, are relatively rare. However, comparatively small numbers of women choose surgery as a career and for those that do, few choose to continue up to consultant level.

4.2. For more than 13 years the College has worked to understand women’s surgical careers and factors affecting their success. Through national and regional campaigns and events the College supports women in, or considering entering, surgery, starting with workshops for school-age aspiring surgeons. These events provide knowledge, practical skills and the opportunity to meet women pursuing a surgical career. A network of members providing information and advice on all topics affecting women in surgery or considering a surgical career, including a flexible training advisor, is also an available asset.

Training

4.3. Surgery is a craft specialty and understandably requires sustained practical as well as theoretical training over many years.

4.4. A medical graduate embarking on surgical training can expect two years of hospital-based foundation training covering a range of specialties, followed by two years of core surgical training, followed by five or six years of specialty training for their chosen type of surgery.

4.5. Application to specialty training generally occurs four or five years after graduation (age 27-30, based on a five year medical degree). A place in a specialty training programme guarantees (subject to competence) permanent training posts until training is complete. When training is complete (approximately ten years after graduation) they may apply for senior posts such as consultant positions or, more likely, further specialty training.

4.6. The length of training, combined with key elements of surgical training at child-bearing age, can be an important deterrent for women who may want to have children.

4.7. In order to provide doctors with the necessary broad experience, surgical training also requires movement between multiple hospitals, often in different geographical locations, with inflexible and unpredictable on-call requirements. For both men and women, this knowledge, and the effect this may have on family life, may play a role in a decision to pursue surgery as a career choice.

4.8. Less Than Full Time (LTFT) training is the means by which doctors and dentists undertake training when they are unable to work and train full time. However, LTFT training is available subject to eligibility, resource and training capacity of the relevant programme\textsuperscript{12}, and will necessarily add years to the training programme.

4.9. Only 7% of trainees across the medical professions are LTFT\textsuperscript{13}, and in the most recent annual national training survey, the General Medical Council (GMC) found 86.4% of LTFT trainees are women\textsuperscript{14}. For surgery, LTFT training is more unusual\textsuperscript{15}, in 2011 Medical Education England statistics showed there to be just 78 LTFT trainees in surgery out of a total of 4,381, highlighting how hard these posts are to secure, and how disproportionally women are affected as a result. With statistics not publically available on the application for, and availability of, these training posts, the College would encourage the Committee to ask Health Education England for this information.

4.10. LTFT training can be arranged as:
  - ‘Slot shares’ (where two part-time doctors share a role)
  - A supernumerary part-time training post (the local education and training board (LETBs) and the NHS Trust have to find extra funding for this)

\textsuperscript{12}\textsuperscript{13}\textsuperscript{14}\textsuperscript{15}

\textsuperscript{12}\textsuperscript{13}\textsuperscript{14}\textsuperscript{15}
A part-time doctor using part of a full-time numbered training post

The most common arrangement is the ‘slot share’ system. However, in surgery it can be extremely difficult to find another trainee who will be seeking the same specialist training because of low overall numbers in certain specialties. Supernumerary posts are the most effective arrangement for LTFT training and should be available more routinely. In addition, while it is vital that part-time trainees achieve the same competencies as those training full-time, the system can limit how much training the LTFT trainee can undertake, which can increase the time spent training (already at 10 years) by more than they would ideally like.

Role models

4.11 University of Exeter research shows that a lack of visible role models in surgery may also discourage women from considering surgery, leading them to subconsciously or consciously feel as though they will not ‘fit’.16

4.12 The research shows that when women think of a surgical consultant they think of a man with traditionally masculine traits, and this is then reinforced by a lack of women at consultant level. The researchers believe that where a woman perceives her attributes differ from these traits, they perceive that they are less likely to succeed in surgery which reduces career ambition and job satisfaction.

4.13 To attract more women to a career in surgery the researchers believe the importance is less about changing the career itself and more about changing some women’s negative perception that they do not have what it takes to succeed.

4.14 The College, through its Women in Surgery team, helps to raise awareness and support women in surgical careers. This team has piloted a ‘near peer’ mentoring scheme for women where medical students were mentored by foundation-level trainees, who were in turn mentored by trainees at the level above themselves, continuing up to consultant level. The scheme was well received and investigations are underway to consider how feasible it would be to roll out on a larger scale. The College has an important role to play in providing mentoring to trainees and is committed to ensuring it does so in the future.

5. Next steps

5.1. Comparatively few women choose surgery as a career, despite ambition, aptitude and relatively little direct discrimination. Women are choosing not to pursue this career due to a lack of positive role models, and/or potential concerns about work-life balance.

5.2. If surgery does not become more accommodating of flexible working patterns, it will fail to attract the best candidates, male or female.

Recommendations for Government

5.3. Government support should be actively offered for initiatives supporting women in areas where they are underrepresented.

5.4. The Athena SWAN charter, launched in 2005 and funded by the Equality Challenge Unit, The Royal Society, The Biochemical Society and the Department of Health, exists to advance the representation of women in science, engineering and technology. Higher education institutions can earn gold, silver and bronze awards if they can demonstrate that they are aware of, and have taken steps working towards, equality in STEM career progression. The College would like to see the charter extended to medicine.17

5.5. LTFT training must be supported, and operate in a system where it is expected. Funding for these positions, particularly supernumerary posts is not always available and we encourage the Committee to explore why this is the case and how this can be rectified. The Government

16 http://surgicalcareers.rcseng.ac.uk/wins/surgery-no-longer-a-mans-world
17 http://www.athenaswan.org.uk/content/athena-swan
18 Department of Health, Women doctors: making a difference, October 2009. P.36
19 http://www.athenaswan.org.uk/content/athena-swan
must consider innovative ways to fund these posts to ensure employers are not disadvantaged
by taking LTFT trainees on.

5.6. Restructuring the funding model to ensure there can be flexibility in the amount of time a
graduate spends training, perhaps by incentivising supernumerary posts as the slot-share
model can lead to the restriction of training to 50% or 60% working patterns, whereas many
trainees would find it more useful to work 70% or 80%.

5.7. It is vital that LTFT surgical trainees receive the same high-quality training as their full time
equivalents. Ensuring funding ‘follows the trainee’ would help to encourage funding for
tailored LTFT rotations rather than having to take part in a broader standard programme
designed for full-time trainees. We encourage Health Education England to consider how it
can support LTFT trainees as part of its review of the tariff for education and training.

5.8. In 2009 the Department of Health report *Women doctors: making a difference* detailed a
number of recommendations including: improving access to mentoring and career advice;
encouraging women in leadership; improving access to part-time working and flexible
training; and improving access to childcare. The Committee may want to consider the
progress of these recommendations.\(^{18}\)

**Recommendations for medical schools**

5.9. University is a key moment to ensure all medical graduates actively consider surgery, and are
fully informed about the pros and cons of surgery as a career. Mentoring, and contact with
positive role models, should be offered for all medical graduates.

5.10. Surgery in the undergraduate curriculum is taught variably across the UK. Having more
defined courses and outcomes across institutions would enable all medical students to make
informed decisions about their future career choices.

5.11. Universities and medical schools should actively seek an Athena SWAN award\(^{19}\) confirming
that the institution is aware of, and has taken steps working towards equality in STEM career
progression. In 2011 the Chief Medical Officer announced that the National Institute of
Health Research (NIHR) would only expect to shortlist medical schools for funding if a gold
or silver Athena SWAN award was in place. The College would like to see all medical
schools seek these awards, regardless of whether they are applying for research funding from
the NIHR.

*August 2013*