within the Greater Belfast area were considered to be urban dwellers, all others were considered rural dwellers. Data were analysed using SPSS (Version 21.0 Armonk, NY).

Results

One hundred questionnaires were completed. The participants rated accessibility of healthcare as more important than accessibility for traditional consumer products (Table 1). Participants would travel further for healthcare treatments than a variety of consumer products. Notably, participants would travel further for high quality products including healthcare treatments than for products of average quality (Table 2).

Table 1.
The importance of accessibility to healthcare and consumer items

| Importance of accessibility* | Sick children | Cancer treatment | Accident and Emergency | Cardiac surgery | Outpatient clinic | Bread | Everyday essentials e.g. shampoo | Large household appliances | Clothes for a special occasion | Television |
|------------------------------|---------------|------------------|------------------------|----------------|------------------|-------|---------------------------------|-----------------------------|---------------------------------|-----------|
| Sick children                | 4.63          | 4.63             | 4.39                   | 4.16           | 4.09             | 4.09  | 4.04                            | 2.78                        | 2.55                            | 2.51      |

*Accessibility was measured on a Likert scale from 1-5 with 5 being highest importance

Discussion

Consumers have similar attitudes to healthcare as they do to other consumer commodities. Consumers are willing to travel further for what they perceive to be specialised products or large one off purchases such as a fridge or television. Similarly, consumers are willing to travel further for traditionally perceived specialised treatments such as cardiac surgery, in comparison with GP or outpatient attendance. The public do want community based services such as their general practitioner to be nearby, similarly to frequently purchased consumer items such as bread. However, consumers are willing to travel on average more than one hour for secondary healthcare such as cancer treatment, particularly when the healthcare provided is of high quality. No longer should pressure be applied to maintain all local healthcare services at the expense of providing regional services of high quality. We encourage the HSC review panel to focus on the provision of high quality health and social care regardless of vocal opposition and suggest that implementation of a quality focussed system would meet the approval of the Northern Ireland population.

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Table 2.
Acceptable travel time for healthcare and consumer items of varying quality.

| Average quality “Item” | High quality “Item” |
|------------------------|---------------------|
| Travel time*           | Travel time*        |

| Cardiac surgery         | 3.29                |
| Clothes for a special occasion | 3.05                |
| Cancer treatment        | 2.98                |
| Large household appliance | 2.72                |
| Television              | 2.67                |
| Outpatient clinic       | 2.45                |
| Accident and Emergency  | 2.38                |
| Sick children           | 2.21                |
| GP                      | 1.92                |
| Bread                   | 1.16                |

Travel time was assessed using a Likert scale from 1-4 corresponding to the travel times below

| 1 | 2 | 3 | 4 |
|---|---|---|---|
| 0-15 minutes | 15-30 minutes | 30-60 minutes | more than 60 minutes |

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ASSEMBLY OF SUCTION APPARATUS. AN ACQUIRED SKILL?

Editor,

Suction is an important aid in airway management. Correct assembly of the suction particulate trap apparatus is a prerequisite for obtaining sufficient vacuum.1,2 We sought to determine if the assembly of suction apparatus is an acquired
skill or a self-explanatory process. We also assessed if more recent apparatus used in hospitals in Northern Ireland can be assembled quicker. If the assembly of suction apparatus can be demonstrated to be an acquired skill then there may be indication for formal instruction to aid development of this skill by medical staff.

Our null hypotheses were:

1. If suction particulate trap assembly is a self explanatory process that does not require development of a specific skill then the time taken for senior doctors to assemble each apparatus should equal that for junior doctors.

2. The older Sep-T-Vac apparatus (Figure 1, panel A) is as easy to set up as the newer Vacsax apparatus (Figure 1, panel B) and can be assembled quicker.

One-way ANOVA test showed a significant difference between grade of doctor, irrespective of apparatus, which rejects the first null hypothesis (p<0.05). The Mann-Whitney test showed a significant difference between each apparatus with the Vacsax apparatus taking a significantly short time to set up in most instances (p<0.05).

Conclusion

The study showed that there is a significant difference between the times taken for the junior and senior doctors to correctly assemble the suction apparatus. This indicates that assembly is an acquired skill rather than a self explanatory process. We also conclude that it is easier to assemble the Vacsax apparatus and that hospitals should adopt this newer model.

**Table 1**

| Grade of Doctor | Sep-T Vac | Mean |
|-----------------|-----------|------|
|                 | A&E       | ENT  | Anaesthetics |
| Consultant      | 33        | 37   | 26            | 30 | 21 | 50 | 33 |
| Registrar       | 77        | 160  | 34            | 57 | 48 | 67 | 74 |
| SHO             | 79        | 115  | 30            | 125 | 98 | 127 | 96 |

**Table 2**

| Grade of Doctor | VacSax | Mean |
|-----------------|--------|------|
|                 | A&E    | ENT  | Anaesthetics |
| Consultant      | 23     | 20   | 14            | 22 | 35 | 18 | 22 |
| Registrar       | 19     | 19   | 17            | 18 | 17 | 24 | 19 |
| SHO             | 27     | 38   | 30            | 25 | 32 | 34 | 31 |

**Method**

Six consultants, six specialist registrars and six senior house officers from three specialties involved in airway management were timed as they assembled a Sep-T-Vac suction particulate trap. The same method was applied for the Vacsax apparatus using different doctors with equivalent seniority. Doctor selection was random and was dependent on doctors who were available on the day of the study. Doctors had no previous training on apparatus assembly.

**Results**

For the Sep-T-Vac apparatus, the assembly time for the most senior grade is approximately one third of that taken by the most junior grade. Specialist registrars averaged the fastest times for the assembly of the Vacsax apparatus. The average times in all grades were faster for the Vacsax apparatus. The numbers in the study are too small to allow comparison between the specialties.

Assembly of suction apparatus is not straightforward and individual hospitals should consider formal instruction on the assembly and mechanism of action of their particular model.

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TWO CONSULTANT SPINAL OPERATING: OPERATOR PERCEIVED BENEFITS

Editor,

There have been few documented studies looking at joint consultant spinal operating.1-3 Within the Royal Victoria Hospital, it is routine for spinal consultants to operate in pairs for complex cases. The benefits of joint operating to either the patient or the surgeon are however unclear.

As a result, a study was undertaken to determine if participating surgeons felt there was any perceived benefit for either the surgeon or the patient. From the 27th September 2011 to the 26th September 2013, there were 43 documented joint consultant spinal operating cases at the main Royal Victoria Hospital site.

19 (44.19%) spinal stabilisation or fusion at any level.
18 (41.86%) Scoliosis operations.
6 (13.95%) Other (including tumour biopsy, wound wash out and kyphoplasty)

To assess if there was any operator perceived benefit, a 5 Question Survey was compiled. This was then sent to 300 Consultant Spinal Surgeons within the UK. A reply was received from 111 Consultants. Results were collated and both qualitative and quantitative data assessed (Fig.1).

The survey demonstrated that 94.50% had been involved in joint consultant operating and 93.64% felt that joint operating was beneficial. It was found that more complex and rarely performed cases were favoured for joint consultant surgery. A few responses, however, stated that consultants should be able to perform these operations by themselves. Although this is true the potential benefits for the patient would encourage joint operating.1

The perceived benefits for the patient included shorter surgery time, less blood loss and fewer post-operative complications. The perceived benefits for the surgeon included less stress with shared responsibility and experience. (Fig. 2)

Conclusion: We believe joint consultant operating is an essential practice and should be used to share knowledge, increase skills and impact positively on patient outcomes. We also believe that this will be true for other surgical specialities. The survey analysis indicated that joint consultant operating is perceived by surgeons to be beneficial for both patient and surgeon. Conversely, there was some concern over registrar training, as opportunities to scrub would not be so readily available. Our feeling however is that actual operating time for the registrar is far outweighed by the invaluable

Q 1: Have you ever been involved in a joint consultant procedure?
Y/N

Q 2: If so, do you feel joint consultant operating is beneficial?
Y/N/NA

Q 3: What cases do you feel should be done/would like to do on a joint consultant basis?
- Complex spinal stabilisation or fusion at any level
- Posterior scoliosis correction
- Posterior fusion scoliosis
- Revision of Scoliosis fixation
- Complex spinal tumour operations
- Complex decompressions
- ACDF
- Free txt response

Q 4: What do you feel are the benefits of joint consultant operating?
- Shorter anaesthetic time
- Less blood loss
- Shorter stay in hospital
- Fewer post-operative complications
- Free text response

Q 5: Any other comments

Figure 1.

Figure 2.

Some Q 3 Free Responses
“Needed for any procedure if there is any concern or (if someone) is new to the team”
“Cases where there is significant risk of neurological loss”.

Some Q 4 Free Responses
“Pooling of expertise/Combined thinking”.
“Better legal position if patient develops complications”.

Some Q 5 free responses
“it may impact negatively on the training of registrars”.
“This is particularly important now as new consultants have little unsupervised pre-consultant operative experience”.
“Should be considered… during the first year of new consultant appointments to ensure smooth transition into consultant practice”.

Some Q 4 Free Responses
“Pooling of expertise/Combined thinking”.
“Better legal position if patient develops complications”.

Some Q 5 free responses
“it may impact negatively on the training of registrars”.
“This is particularly important now as new consultants have little unsupervised pre-consultant operative experience”.
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Figure 2.

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