ACI NSW Agency for Clinical Innovation

Review of Internet Access and Usage in Emergency Departments

Survey of Internet use in Emergency Departments

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ABBREVIATIONS

ACI	Agency for Clinical Innovation
CNC	Clinical Nurse Consultant
CNE	Clinical Nurse Educator
CNS	Clinical Nurse Specialist
COWs	Computers on wheels
EBM	Evidence Based Medicine
ECI	Emergency Care Institute
EDs	Emergency Departments
IT	Information Technology
LHD	Local Health District
NSW	New South Wales
RN	Registered Nurse

CONTENTS

EXECUTIVE SUMMARY

Modern medicine is practised under the principles of Evidence Based Medicine (EBM) that dictates the implementation of the most current evidence for clinical care. Clinicians have cognitive limitations, therefore ready and easy access to resources is critical in practicing EBM. These resources are increasingly, and often exclusively, found online.

It is now 14 years since the publication of a detailed analysis of causation of adverse events from the landmark Quality in Australian Health Care Study of 1995[1]. Recommendations included addressing "the factors in healthcare delivery that may interfere with the cognitive or technical performance of healthcare providers. Insufficient use of information technology to assemble the necessary information at the time of decision-making may increase error".[2]

Access to online resources and the Internet has been identified by emergency care clinicians as a major issue in NSW Emergency Departments (EDs) with consistent feedback through stakeholder surveys and ad hoc comments indicating that lack of access impedes clinicians' ability to deliver quality care. The Emergency Care Institute (ECI) surveyed NSW EDs to explore the use and availability of Internet services. The topic is important because there are significant restrictions on Internet use in many EDs. This survey and report follow initial work, including a literature review and pilot survey[3] by Ms V Cook, an Australian National University undergraduate student at the ECI.

To investigate the use of Internet in EDs, the ECI undertook a survey of NSW ED staff. The research used an Internet-based survey of ED staff primarily circulated by e-mail and social media. The survey was emailed to the ECI's Network of 920 contacts representing over 150 departments or hospitals, professional and other organisations. The survey was also displayed on the ECI website, and posted on the ECI Facebook and Twitter accounts.

The survey, launched in May 2013, obtained 557 respondents, 94% of whom worked in an ED. Responses were received from all NSW Local Health Districts (LHDs). All NSW EDs with role delineation levels 5 and 6 responded, as did the majority of level 4 (75%) and level 3 (65%) departments, with fewer responses received from very small departments. Overall, responses were received from EDs providing care to more than 80% of NSW ED patients. Annex A lists the questions and the collated survey data.

Results and analysis

Information needs by ED staff are clinical in nature. This survey found that the primary means of answering clinical questions is via the Internet.

Respondents reported a wide range of clinical questions, research needs and areas of uncertainty that they were faced with during their working day. These included:

- More information about certain conditions and diseases (85%)
- Clinical guidelines and current practice (84%)
- Unfamiliar medications or drug brand names (79%)
- Procedure techniques (61%)
- Household products (e.g. in case of overdose) (52%).

However, while demand for information and Internet use is high, the supply of Internet accessibility in EDs is generally not meeting the needs of ED clinicians. One half of respondents reported that their level of Internet access available at

1. Wilson RMcL, Runciman WB, Gibberd RW, et al. The Quality in Australian Health Care Study. *Med J Aust* 1995; 163: 458-471. <eMJA pdf>
2. Harrison BT, Gibberd RW, Hamilton JD. An analysis of the causes of adverse events from the Quality in Australian Health Care Study. *Med J Aust* 1999; 170 (9): 411-415
3. "L*iterature review: A review of the use of internet resources in conducting EBM*", Pilot survey, and Presentation to ECI Leaders Forum as part of ECI project "Review of Internet Access and Usage in Emergency Care Departments". January 2013 Ms Victoria Cook; Australian National University student summer internship at ECI

work was poor or that they had no access (51%). Only 7% reported that Internet access was 'very good' while 42% reported having 'good' or 'satisfactory' access, but even so, indicating that this level did not entirely meet their clinical needs. A constraint identified early in this survey was that staff in EDs may not have access to the Internet and so would not be able to complete the Internet-based survey. As a result, to mitigate potential bias in favour of satisfaction with current Internet accessibility, an option was provided to allow respondents to complete a hard copy version of the survey that could be emailed or faxed to the ECI (7% of respondents choose to use the hard-copy approach).

While the general level of Internet access available in workplaces was not meeting the needs of clinicians, there was significant variation by individual LHD. This inconsistency suggests access to Internet is not based on general principles across the State.

Respondents reported that they were most likely to seek answers to clinical questions 'immediately' (89%).

The top two resources used for answering clinical questions were on-line journals, guidelines, search tools and specific websites (92%), and speaking to colleagues (80%). This would suggest that the Internet is comparable to verbal communication as a means to provide information as part of normal working practice, i.e. very important.

Using employer-provided IT resources, staff accessed the Internet in a variety of locations. Almost half (48%) of staff reported that they shared a computer, with 43% sharing in the ED. One quarter (25%) of staff had an allocated computer. Direct[4] clinical staff were more likely to use a shared computer (55% shared computer) compared to indirect[5] clinical staff (27% shared). Analysis suggests this allocation of computers is not based primarily on clinical need for the Internet.

Use of personal communication devices to access medical resources was widespread, with 69% of respondents using their own device. This suggests that while employer-provided Internet access in the ED is typically poor, a high proportion of ED staff nevertheless use the Internet, and this usage is unregulated by organisational policy.

Respondents were asked about the barriers to Internet access. The main barrier was blocking firewalls / blocked sites (73%). However, there were a significant number of other technical/resource factors, these included:

- Lack of computer/ insufficient computers (51%)
- Slow computer /out-dated technology (51%)
- Poor/no wireless access (48%) and
- Volume of staff needing to use shared computers (46%).

Thus, any strategy to improve Internet access needs to consider a number of technical and physical barriers, not just the blocking/restriction of website access on a local basis.

The majority of respondents (89%) felt that these barriers to Internet access affected their work.

Respondents were asked about which specific resources were blocked. More than half (58%) were blocked from video or audio sites such as Vimeo or YouTube, and 39% were blocked from social media and personal emails, with 36% blocked from blogs, podcasts and newsletters.

LHDs and hospitals have procedures in place to "unblock" access to particular websites, however when we asked respondents if they would apply to unblock sites that they could not access, the majority (72%) said 'never'. This suggests that while there are, on the face of it, local systems to unblock sites, in practice these procedures are not used. In qualitative comments, barriers to requesting access included requests being refused, lengthy delays, lack of clarity about process or just frustration. This suggests procedures to unblock websites are not, in practice, working in any practical or meaningful way. Even if requests are made there is no resolution as illustrated by the following respondent quote:

> *"I have seen the lack of response to attempting to get sites unblocked, so why continue wasting time and effort. It was easier and got timely results, to buy a smart phone and sign up for a new phone plan."*

1. "Direct clinical" staff are defined as clinical staff who routinely provide hands on clinical care to individual patients on a shift
2. "Indirect clinical" staff are defined as clinical staff who routinely have an oversight or managerial responsibility in the ED and do not routinely provide hands on clinical care to individual patients on a shift

Conclusion

Internet access should be regarded as an essential clinical tool in Emergency Departments.

In 2013, Internet access in NSW EDs is variable and does not meet routine clinical needs for immediately required information for the delivery of quality patient care. Limitations are due to policy and constraints on equipment and resources.

It is likely that preventable adverse events occur in NSW EDs as a direct result of under-recognition of the role and responsibilities of the healthcare system and its custodians in providing a "safe environment" using systems-improvement tools, including readily accessible point of care Internet (i.e. at the point of clinical decision making).

Access restrictions on existing Internet services are bypassed by clinicians using personal devices. This not only undermines health service "control" of information used by clinicians in terms of the quality of content, but also potentially misses opportunities to implement guided decision making tools, and communicate with and engage clinicians in organisational priorities.

"Hard to imagine another industry in which employees are blocked from accessing websites which are directly relevant to the work being performed and would improve their ability to perform their jobs."

CHAPTER 1
INTRODUCTION

The Emergency Care Institute (ECI) has been set up under the umbrella of the Agency for Clinical Innovation (ACI) with its primary role being to improve outcomes for patients presenting at hospital Emergency Departments (EDs) across NSW through coordination, networking and research.

The ECI works with and supports ED staff, in consultation with consumers and the community, to research, plan and deliver more effective and efficient care leading to better outcomes for patients. It provides a strong, independent voice for improvement on behalf of staff, patients and NSW communities. Specific priorities for the ECI include:

- Reduce variation in clinical practice
- Provide a forum for the systematic analysis and assessment of information regarding the quality of care in NSW EDs
- Display strong leadership to inform the future strategic direction of emergency care in NSW
- Undertake audits of activities to ensure that there are meaningful and transparent results, which are widely available.

Feedback to the ECI from NSW ED clinicians indicates that poor IT and Internet access is a barrier to the use of clinical decision tools, information sharing, and to the delivery of evidence based care in ED.

1.1 Methodology

The research used an Internet-based survey of ED staff primarily circulated by e-mail and social media. The survey was emailed to the ECI's network of 920 contacts representing over 150 departments or organisations, mainly comprising EDs and hospitals, who were also encouraged to circulate it to their colleagues. The survey was also displayed on the ECI website, and posted on the ECI Facebook and Twitter accounts. The Australasian College for Emergency Medicine (ACEM) was also contacted to circulate the survey to their NSW members.

The survey was developed from the initial pilot ED survey undertaken in March 2013. The survey questions are provided in Annex A.

The survey was launched on 13 May 2013 and obtained 557 responses. A reminder was sent on 16 May as part of a separate routine communication to the ECI network. The survey closed on 29 May (2.5 weeks).

A constraint identified with the survey methodology was that staff in EDs may not have access to the Internet and so would not be able to complete the Internet-based survey. As a result, to mitigate potential bias in favour of satisfaction with current Internet accessibility, an option was provided to allow respondents to complete a hard copy version of the survey that could be emailed or faxed to the ECI. Around 7% of respondents choose to use the hard-copy approach. This will not totally account for potential bias, given the ease of Internet completion compared with the hard-copy approach, and therefore, the survey results should be interpreted with caution and may significantly over-estimate ED staff satisfaction with and access to the Internet.

A more robust methodology to capture emergency care stakeholder views may have been to conduct site interviews in person or by phone, however, there are shortcomings with both these methods, and additionally, the cost and practicality of contacting or visiting more than 180 emergency services in NSW was beyond the resources available. The current design of the methodology is a pragmatic approach, and the findings echo substantial previous stakeholder feedback.

CHAPTER 2
SURVEY RESULTS

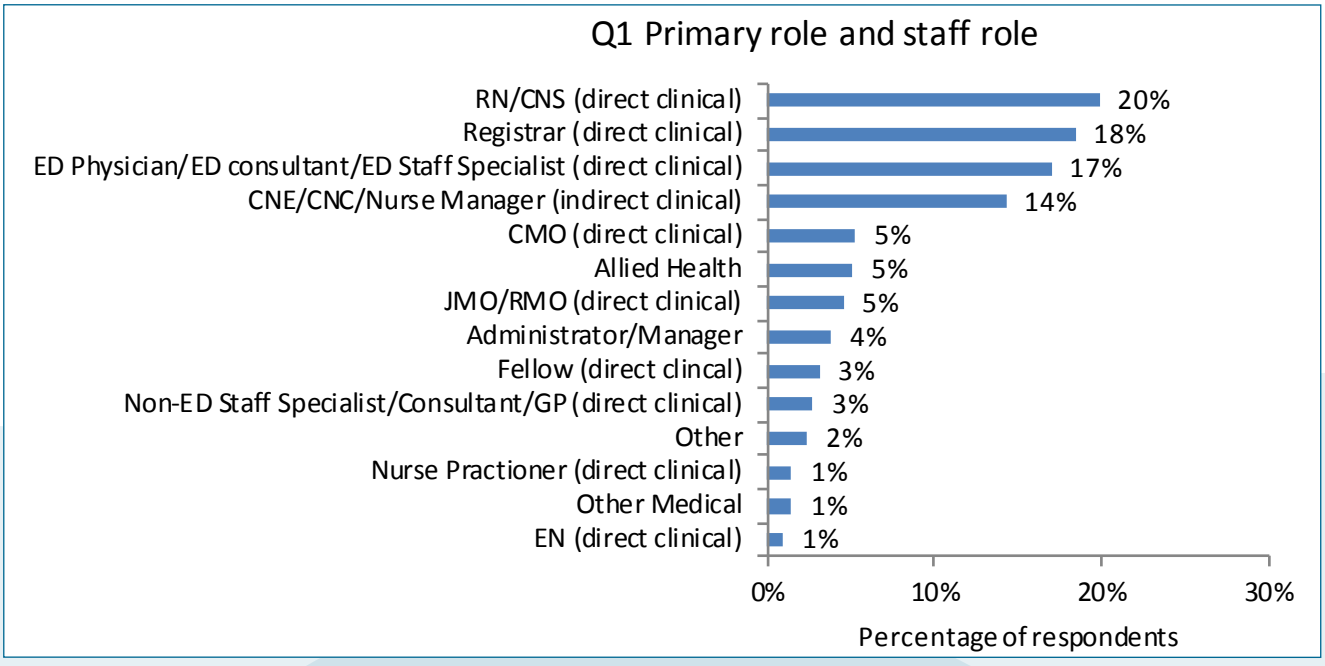
Survey results are presented below. For some questions, the topics identified by respondents are further illustrated by quotes taken from the final 'general comments' question where responses were on matters already raised in the survey.

The tables in Annex A provide the full list of survey questions together with the collated response data.[6] Annex B provides a detailed list of captured comments.

The results in this report follow the same order as the questions in the survey. The first six questions provide a general profile of the people who responded to the survey as follows.

2.1 Respondent primary role and staff role

The survey asked respondents to indicate their primary role. Respondents represented a range of ED staff roles, including Registered Nurses (RN)/Clinical Nurse Specialist (CNS)(20%), Registrar (18%), ED Physician/ED Consultant/ED Staff Specialist (17%) and Clinical Nurse Educator (CNE)/Clinical Nurse Consultant (CNC)/Nurse Manager (14%). Overall, 52% of respondents held medical roles and 36% nursing roles. When compared to the staff profile of ED, nurse respondents are under-represented in this survey.



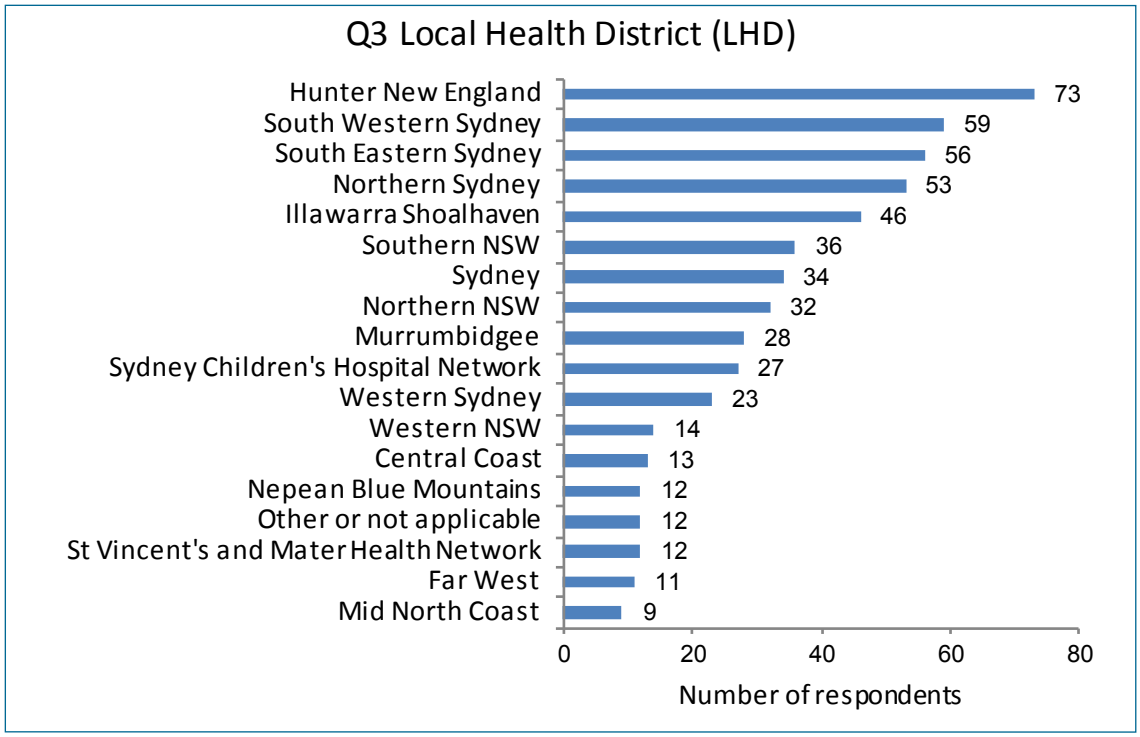
2.2 Working in EDs

The significant majority of survey respondents (94%) stated that they worked in EDs. Of those not working in ED, half were working in a managerial or administrative capacity and others worked in roles such as Allied Health.

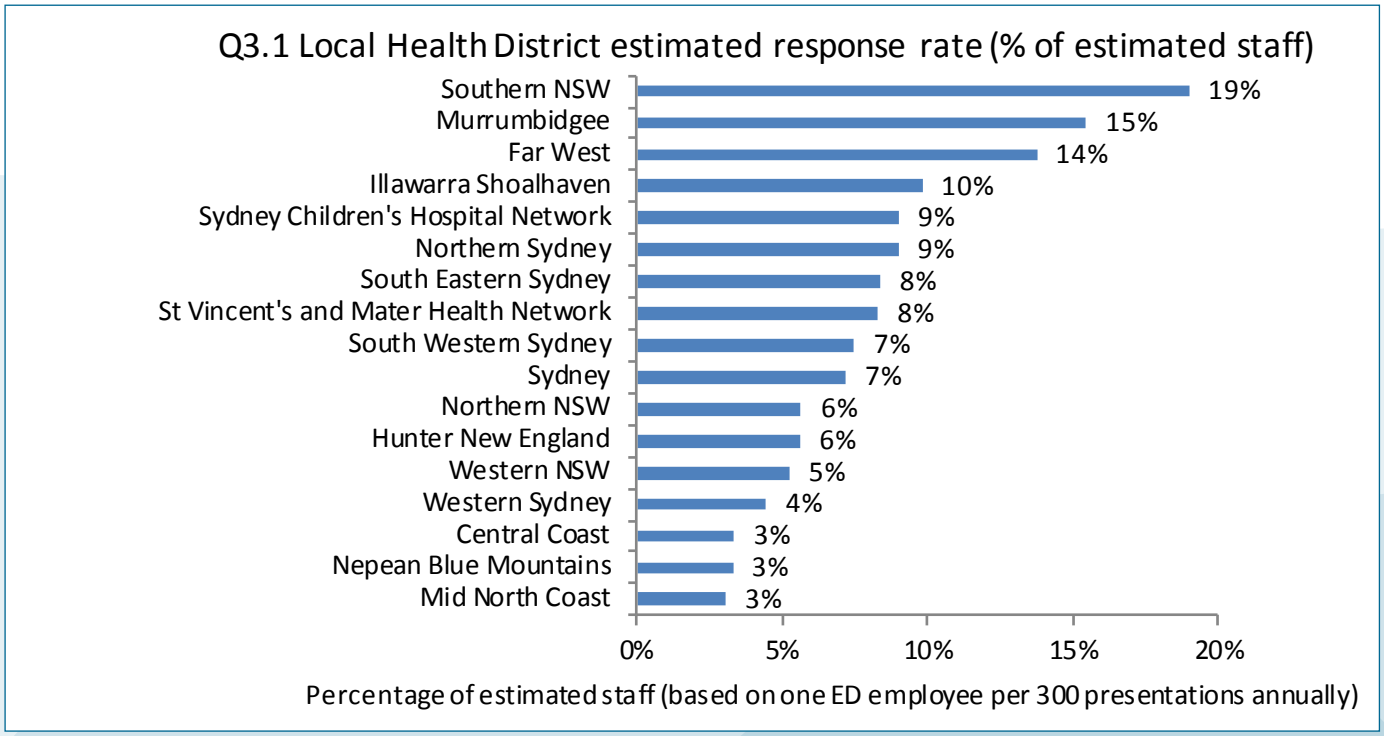
6. Percentages in the report are given as a proportion of valid answers and totals for each respective question. To do this a calculation is made of those who did not complete the full survey for some questions (typically 5%). As a result percentages given may vary slightly depending on the treatment of missing data.

2.3 Primary Local Health District

All Local Health Districts (LHDs) were represented in the survey, however, numbers of respondents from individual LHDs varied. Many factors for variable respondent numbers are likely, including survey distribution locally, Internet access, total number of staff employed or interest in the topic.

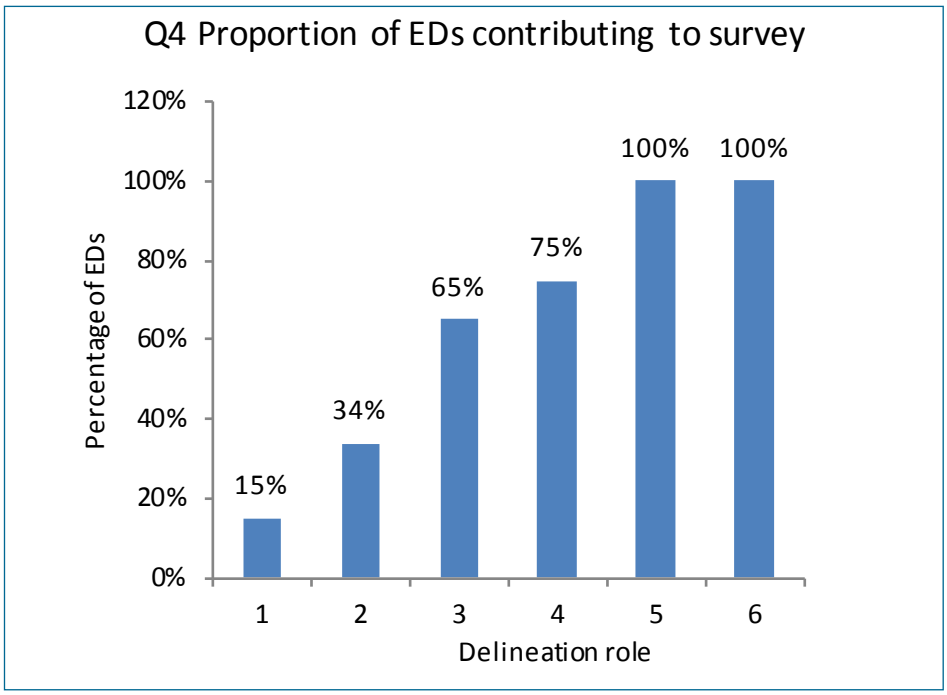


Plot Q3.1 provides an estimate of response rate by LHD. As data on staff numbers in EDs is not available, to estimate ED staff levels it was assumed that each 300 ED presentations in 2012 required one ED employee. While an estimate only, this gives a relative indicator of contribution between LHDs, with the number of presentations as a denominator. This shows that while Hunter New England and South West Sydney LHDs generated the most responses (Plot Q3), their responses levels were not more than expected (Plot Q3.1). LHDs potentially under-represented are Mid North Coast, Nepean Blue Mountains and Central Coast.



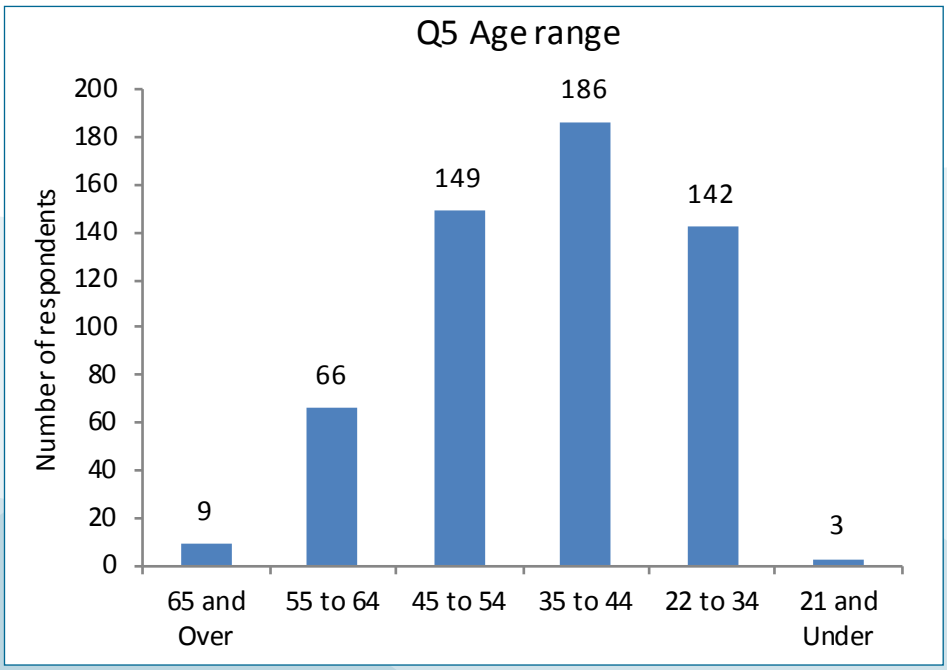
2.4 Main ED currently working in or closely with

The survey captured the main ED where the respondent was working in or closely with. Ninety one of 184 (49%) NSW EDs submitted at least one survey. As a proportion of EDs of different delineation levels, responses were received from all level five and six EDs. A smaller proportion of lower delineation level facilities contributed, although this would be as expected as the smaller facilities generally have much poorer Internet access (to receive the survey) and fewer staff.



2.5 Age

The following plot shows that a range of respondent ages were represented in the survey.



2.6 Gender

Results showed that 58% of respondents were female and 42% were males.

2.7 Clinical questions, research needs and areas of uncertainty

The survey asked "during your work day, are you faced with clinical questions, research needs, or areas of uncertainty". Respondents could select all that applied from the list of options. The results show the wide breadth of clinical questions and areas of uncertainty

Respondents could select all that applied from the list of options. The results show the wide breadth of clinical questions and areas of uncertainty faced by staff, such as:

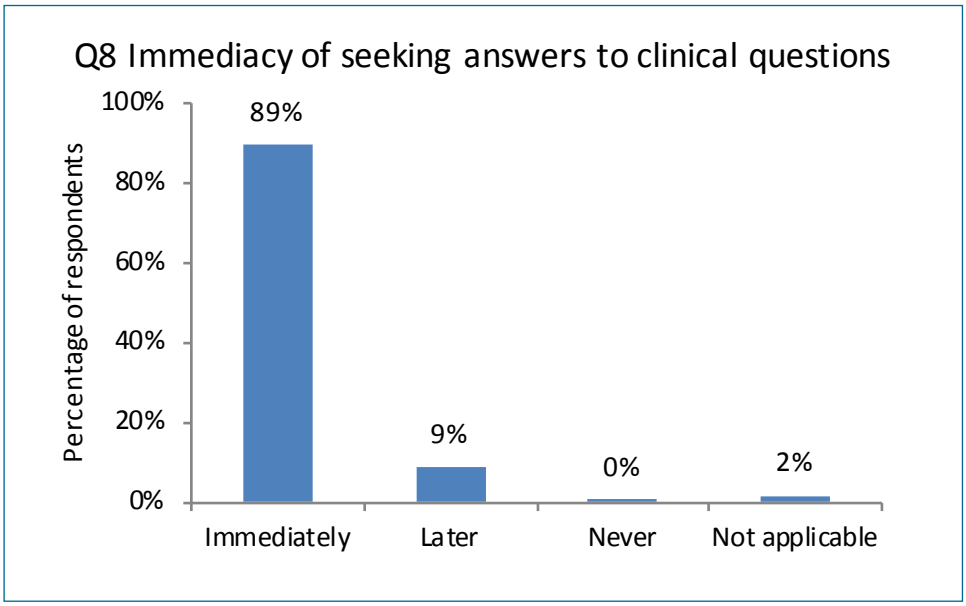
- More information about certain conditions and diseases (85%)
- Clinical guidelines and current practice (84%)
- Unfamiliar medications or drug brand names (79%)
- Drug/medication therapy and doses (79%).
- Procedure techniques (61%)
- Household products (e.g. in case of overdose) (52%).

While this survey question asked about specific types of information needed, it is worth noting that the Internet is a general tool, and a rapid way of getting any type of information as part of providing healthcare:

> *"We need free, fast, reliable access to the web in order to find the best solutions for the multiple problems we and our patients face each working day."*
>
> *"Internet access in the ED … allows us to adequately assess and treat our patients better with appropriate information available at our fingertips without needing lots of time to search."*

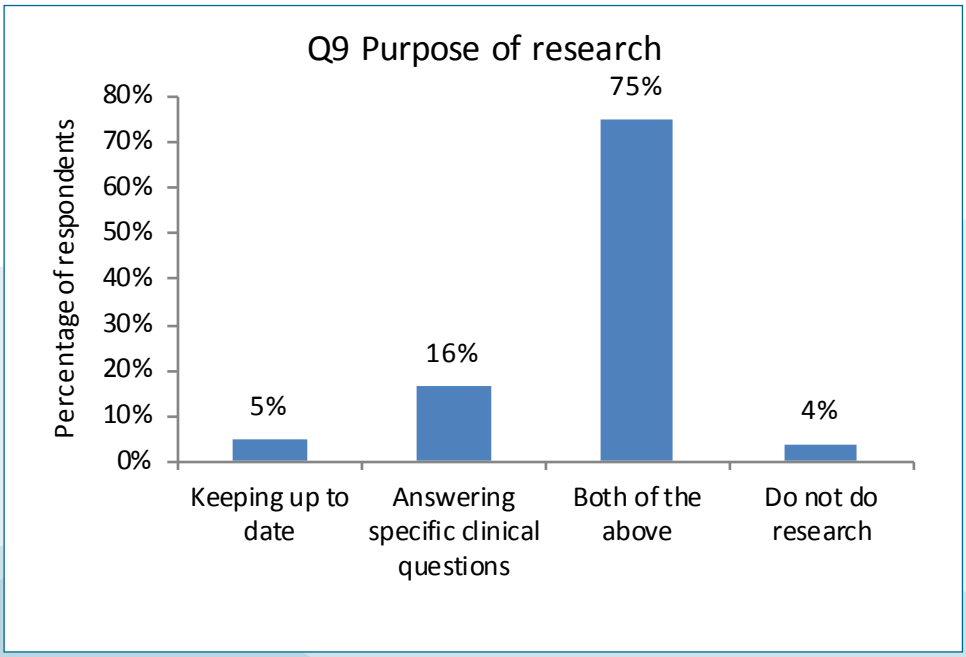
2.8 Immediacy of seeking answers

When a clinical question is presented, respondents reported that they were most likely to seek answers immediately (89%) rather than later (9%). This leaves little time for requests for Internet or website access to be made and responded to, such as is required by current LHD processes; the need is immediate.



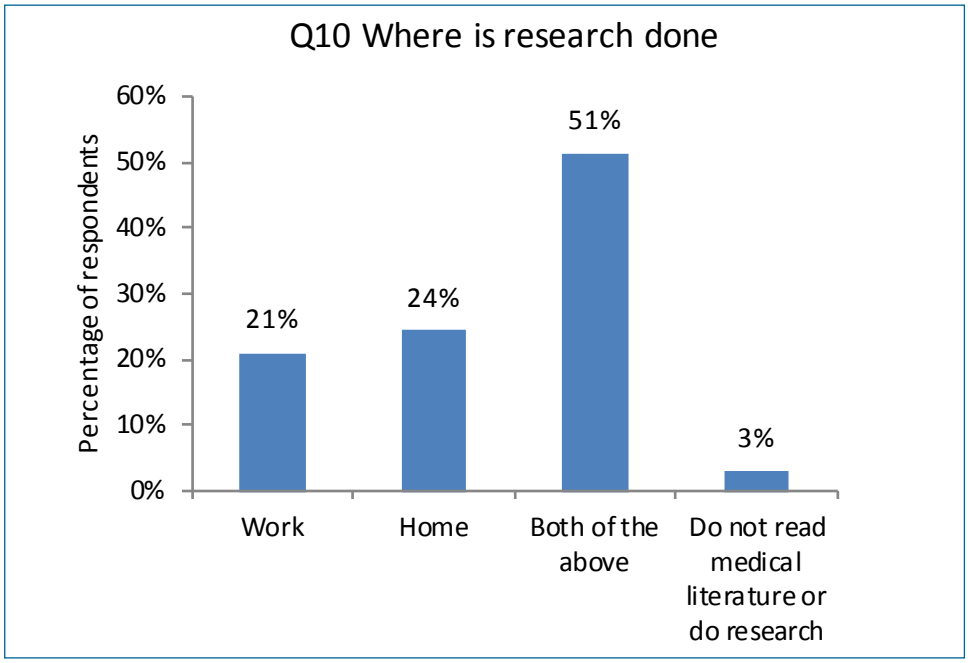
2.9 Purpose of research

Research is done both for the purpose of answering specific questions as well as keeping up to date with the latest information available. Ninety one percent of respondents conduct research to answer specific clinical questions and 80% of respondents conduct research to keep up-to-date.



2.10 Where research is done

Research is done both at work and in the home, with 72% of respondents doing research at work, and 75% doing research at home.



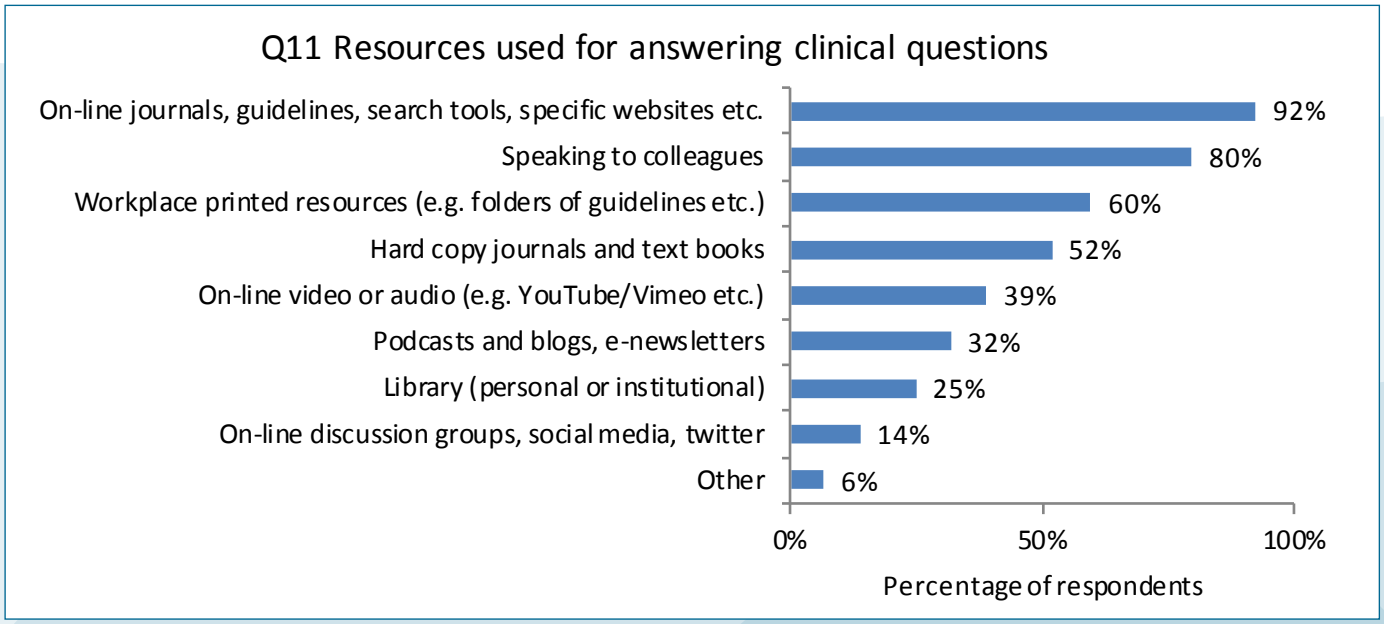
2.11 Resources used for answering clinical questions

The survey asked about the main resources (all sources) used for answering clinical questions. The list of options was generated from the previous pilot and the smaller earlier survey.

The most important or frequently used resources were:

- On-line journals, guidelines, search tools and specific websites (92%)
- Speaking to colleagues (80%).

This would suggest that the Internet is at least comparable to (if not more important than) verbal communication in providing information and guidance.



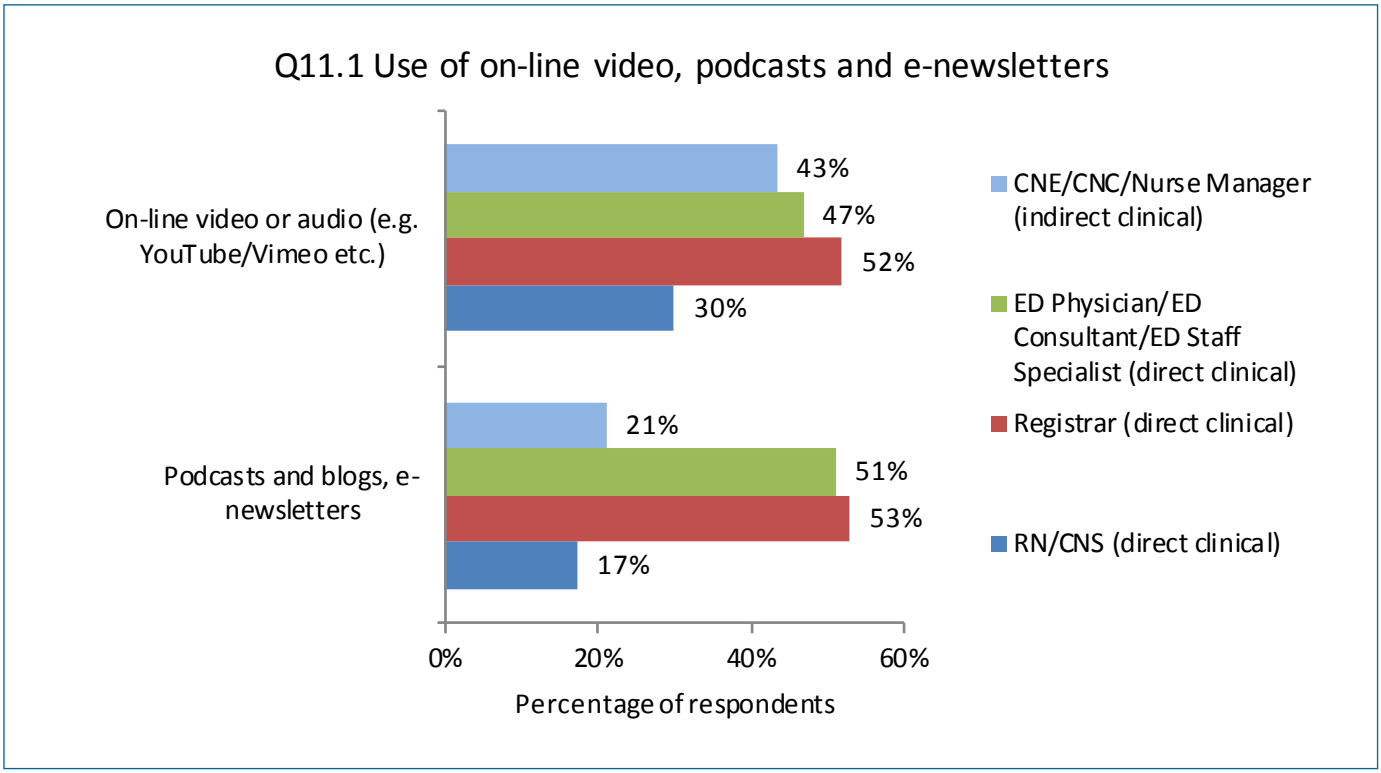
2.11.1 On-line videos, podcasts and e-newsletters

The above question identified that over one third of respondents (39%) reported using on-line video or audio (e.g. YouTube, Vimeo) and 32% used podcasts and blogs, and e-newsletters. However, results for users of these resources varied by staff role.

Medical staff was more likely to use on-line videos, podcasts and e-newsletters to help answer clinical questions. Around half (47%-52%) of ED Physicians, ED Consultants/ED Staff Specialists and Registrars reported using on-line video or audio, and a similar proportion (51%-53%) used podcasts, blogs or e-newsletters.

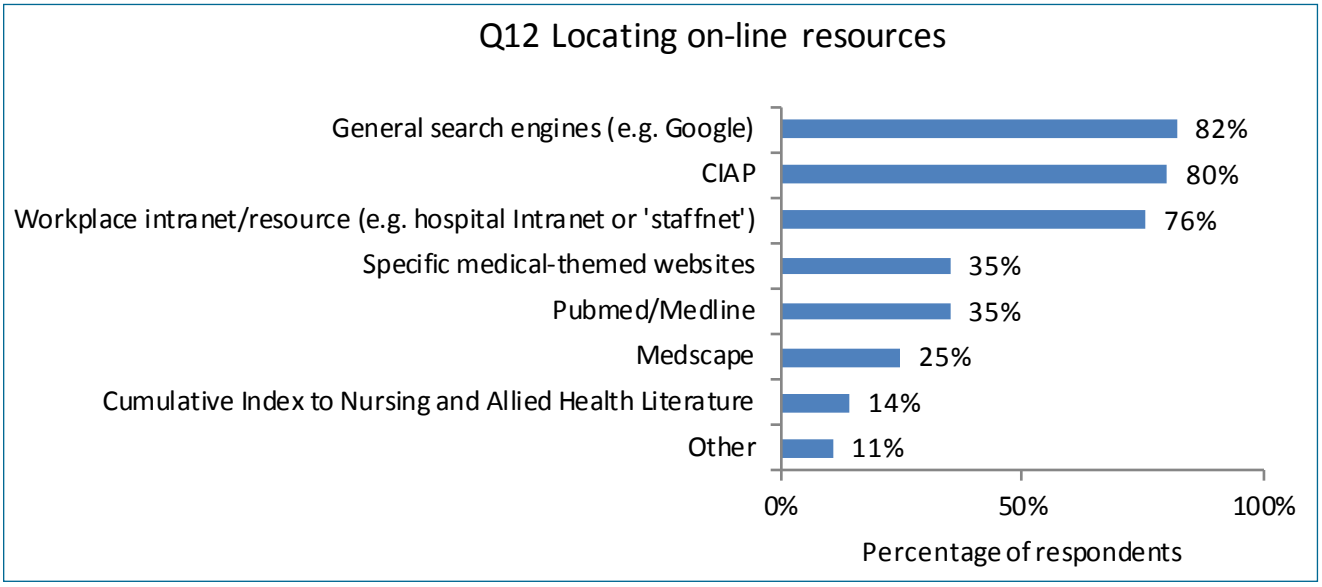
In contrast, RN/CNS staff were much less likely to use on-line video or audio (e.g. YouTube/Vimeo etc) (30%) and podcasts, blogs, and e-newsletters (17%).

Results are given in plot Q11.1 for four staff roles only, as these roles had sufficient data thought to be generalised to the population (judged by there being more than 30 respondents in a sub-group). Annex A provides data for the other staff roles with lower sample volumes.



2.12 How on-line resources are located

The main tools for using on-line resources were general Internet search engines such as Google (82%) and Clinical Information Access Portal (CIAP) (80%). The workplace intranet is also significant (76%).



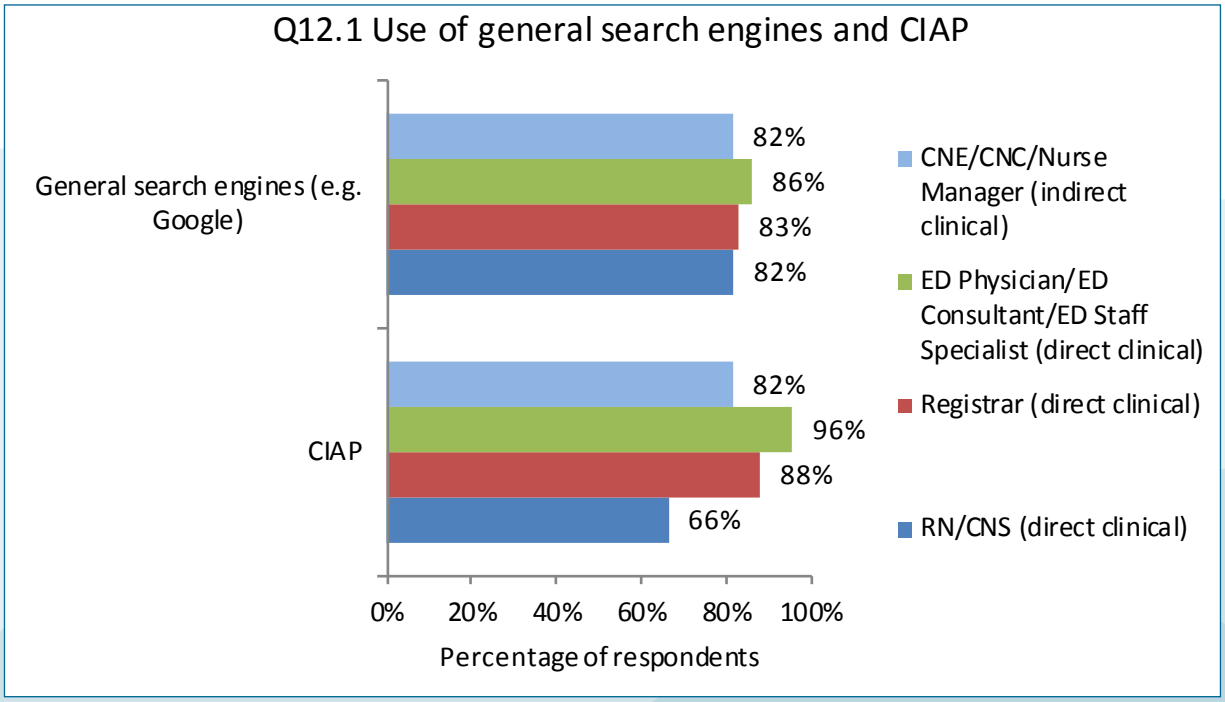
Senior medical staff in particular used CIAP to locate resources. For example, 96% of ED Physicians/ED Consultants/ED Staff Specialists reported use of CIAP.

It is likely that search services such as CIAP can be accessed through local intranet, and so might not be subject to as many restrictions as general web searching. However, CIAP has issues which mean it is not necessarily a quick and simple resource.

The use of general search engines and CIAP was frequent by all staff roles.

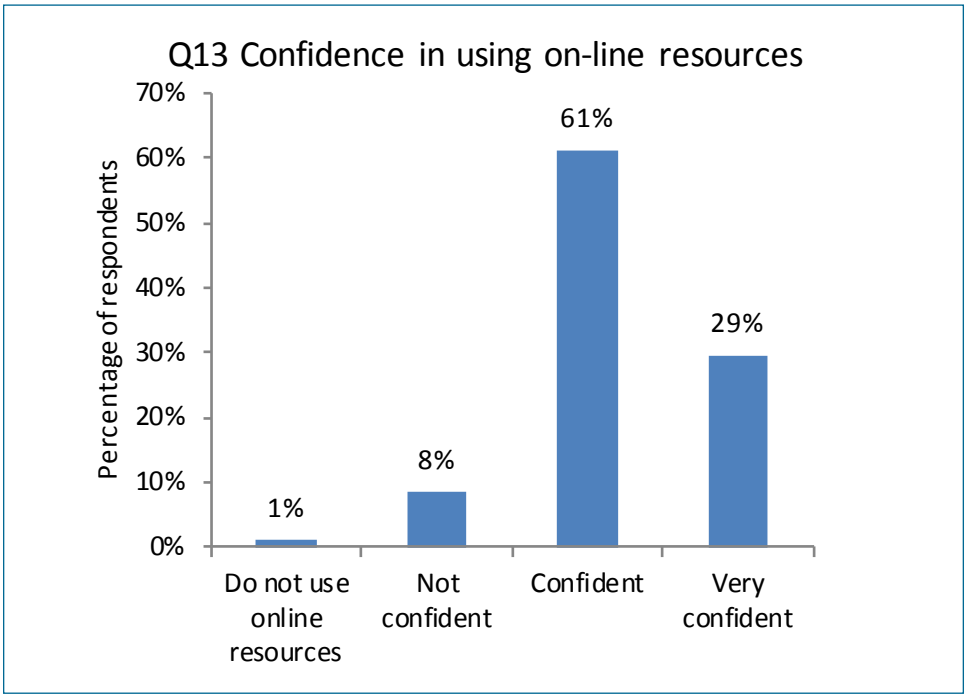
"CIAP is cumbersome and user unfriendly to use."

"Resources via CIAP are available, but are difficult to navigate and are often crowded by irrelevant information."



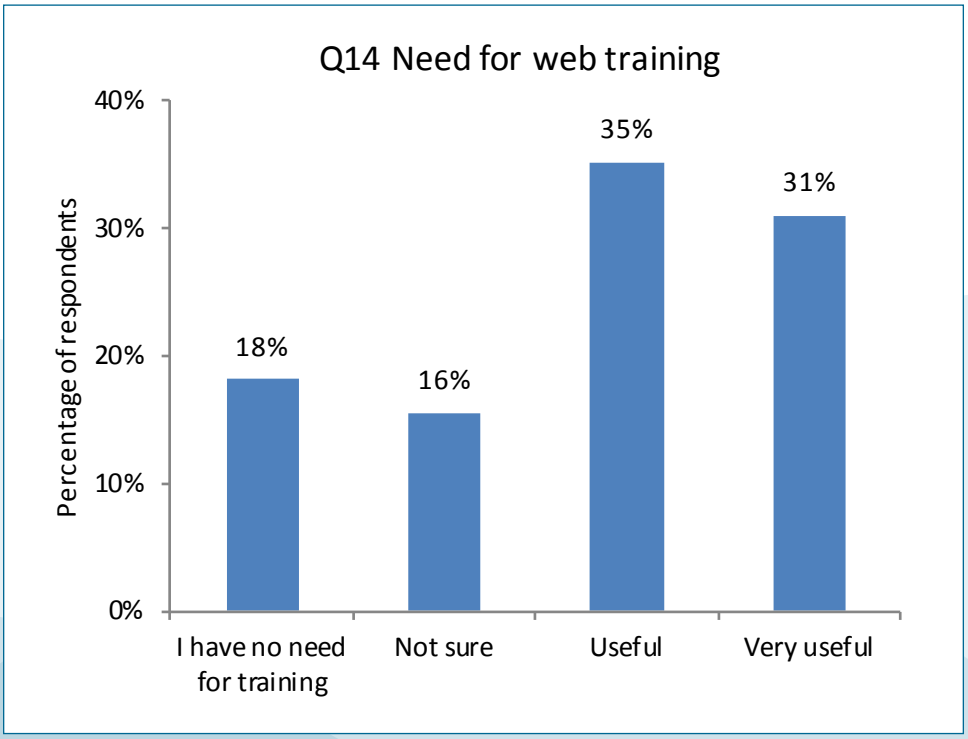
2.13 Confidence in using on-line resources

The majority of respondents stated they were confident in using on-line resources, with 29% being 'very' confident.



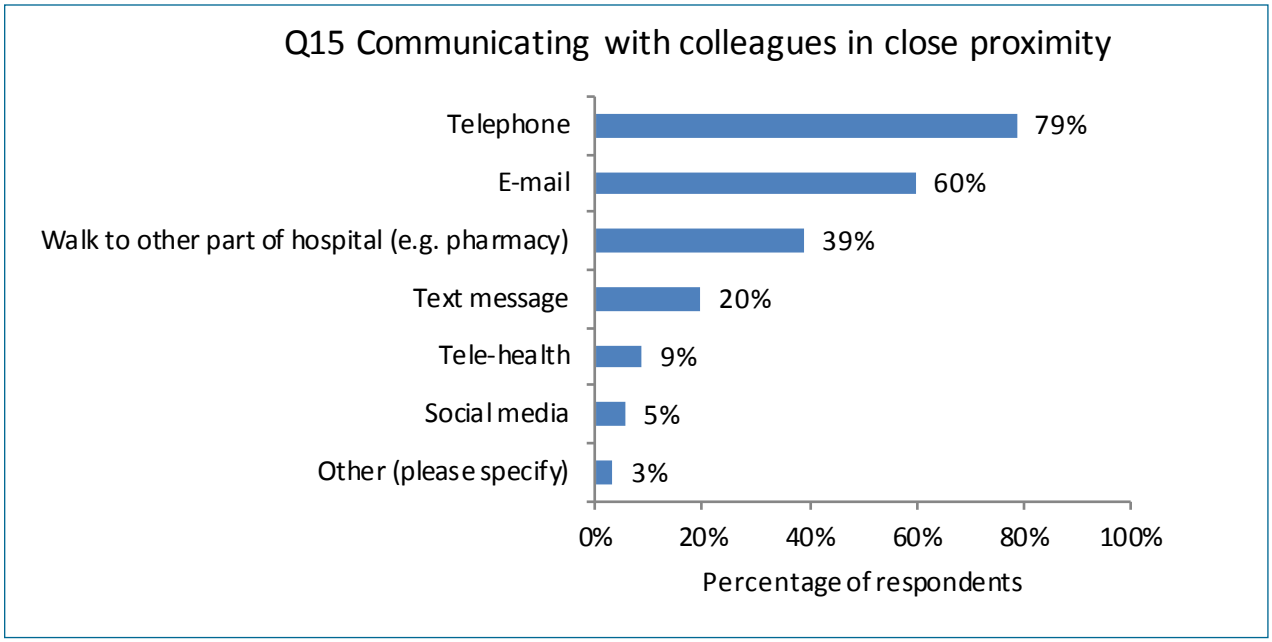
2.14 Need for web training

While most were confident, two thirds (66%) of respondents also reported that they would find it useful or very useful to have web training.



2.15 Communicating with colleagues in close proximity

The survey asked how respondents communicated with colleagues in close proximity to answer clinical questions. The main channel of communication was telephone (79%) and email (60%), and also walking to other parts of the hospital to speak to them (e.g. pharmacy) (39%).



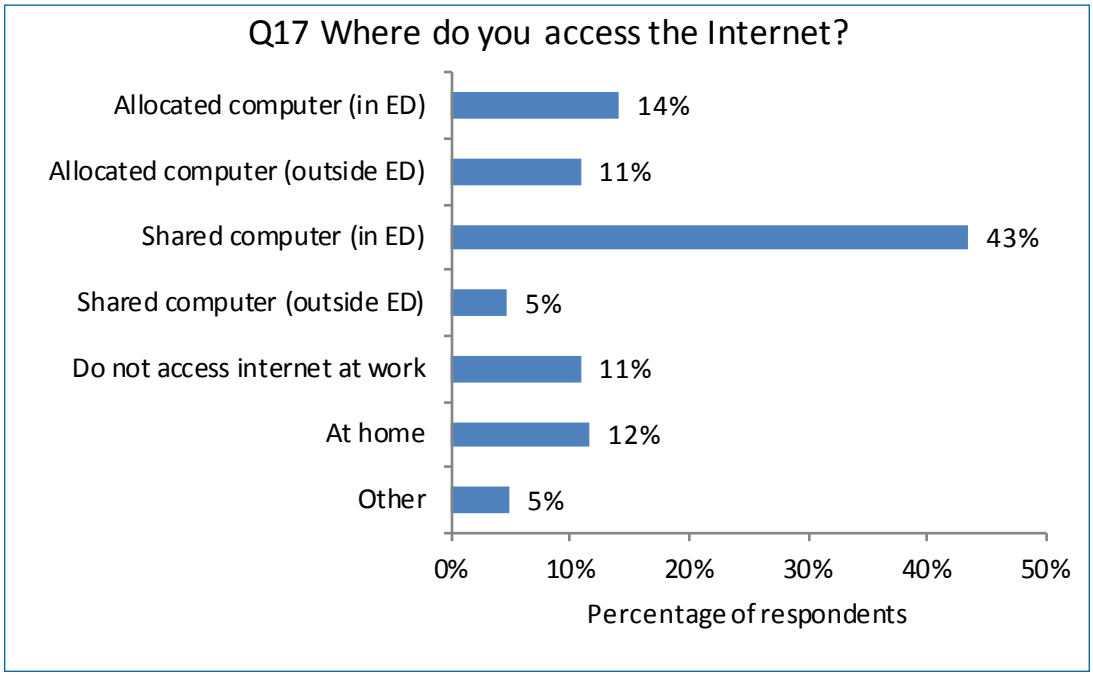
2.16 Other specific websites or search portals used

The survey provided an open text question for respondents to list any other specific websites or search portals they use not previously mentioned in the survey. The following provides a list of the websites cited:

- EMCRIT — Blog on ED critical care
- ECI — Emergency Care Institute website
- dermnetnz.org — NZ website on skin diseases and resources
- EMRAP — Monthly ED podcast
- Tumblr — Micro-blogging platform
- impactednurse.com — Blog
- mims.com.au — Database of medicines information
- Uptodate — Clinical decision support resource
- Life in the Fast Lane — Emergency Medicine insights and education blog
- Emergency in the Shed — Nursing podcast on Life in the Fast Lane
- Medinuggets.com — Blog
- Resus.com.au — Resus website and blog
- toxinz.com — Poisons information
- Wikipedia — E-encyclopaedia
- Ilcor.org — International Liaison Committee on Resuscitation
- NICE Guidelines — UK NHS clinical reviews and guidance
- qxmd.com — Clinical Calculator Application (iPhone/smartphone application)
- Emedicine — Medscape medicines resource

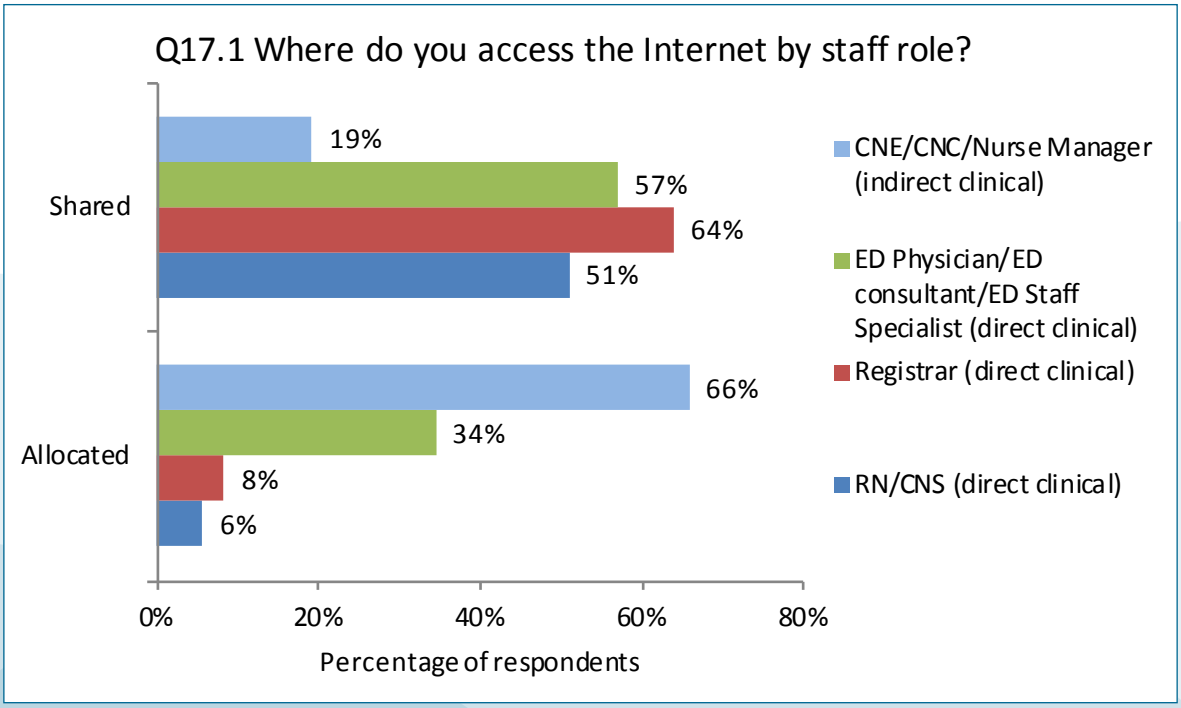
2.17 Where do staff access the Internet using employer-provided IT?

Staff access the Internet in a variety of locations (using employer-provided IT resources). Almost half (48%) of staff reported that they shared a computer, with 43% sharing in the ED. One quarter (25%) of staff have an allocated computer.



The use of allocated versus shared computers varied by staff role (plot Q17.1):

- CNE / CNC / Nurse Managers were more likely to have an allocated computer (66%)
- ED Physician/ED Consultant/ED Staff Specialist, Registrars, and RN/CNS mostly have a shared computer (51%-57%).



Sharing computers is more likely for staff with a direct clinical role. Of all direct clinical staff roles, 55% reported that access the Internet was via a shared computer in an ED, compared to 27% for indirect clinical (not plotted).

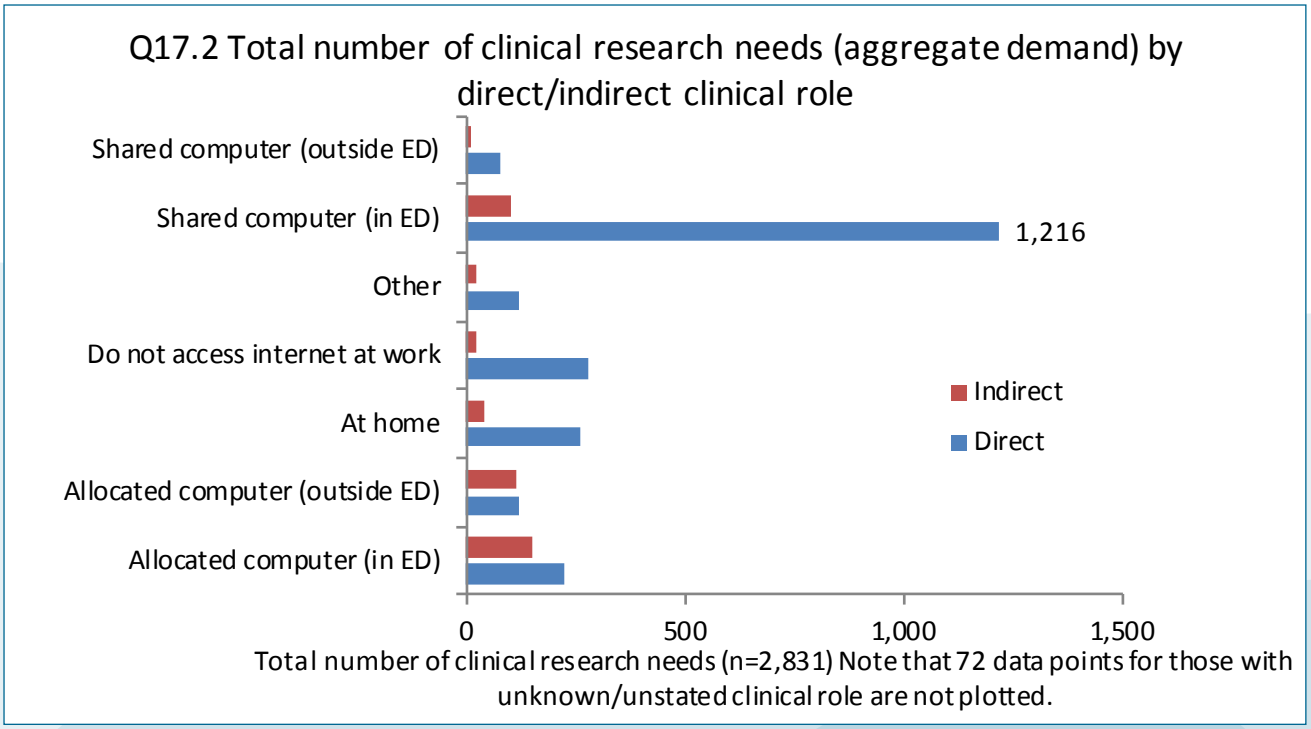
Further analysis of the data suggests that direct clinical staff was more likely to have a broader range of clinical research needs. The following table derives a clinical research need 'indicator'. The indicator records the average number of 'clinical questions and research need' types from responses to earlier Q7[7]. Analysis reveals that direct clinical staff has a higher number of clinical research needs (typically 5.9 clinical research need types) compared to indirect clinical staff (4.7 clinical research need types).

Table Q17: Number of clinical research needs

CLINICAL RESEARCH NEEDS (average number of clinical research questions/needs types)	CLINICAL ROLE	
	Direct	Indirect
Allocated computer (in ED)	5.8	4.9*
Allocated computer (outside ED)	5.5*	4.3*
At home	5.5	4.8*
Do not access Internet at work	6	2.8*
Other	6.4*	6.7*
Shared computer (in ED)	6	5.2
Shared computer (outside ED)	5.5*	2.0
Grand Total	**5.9**	**4.7**

*indicates sample of less than 30

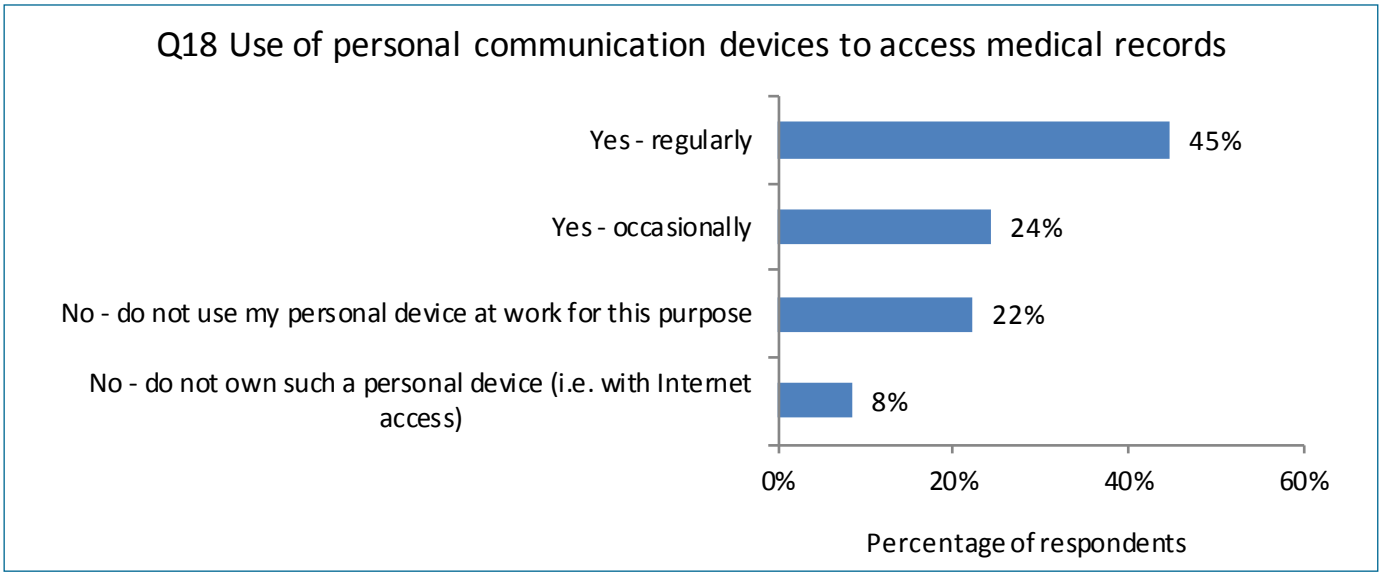
The same clinical need data is presented in Plot Q17.2 but in aggregate form. This shows that of a total of 2,907 clinical research needs identified in the survey, 1,216 (43%) of these were associated with direct clinical staff accessing the Internet via shared computers in ED. If one assumes a personally-allocated computer reflects individual need, this data suggests computers allocated for ED staff may not be distributed according to *clinical need*.



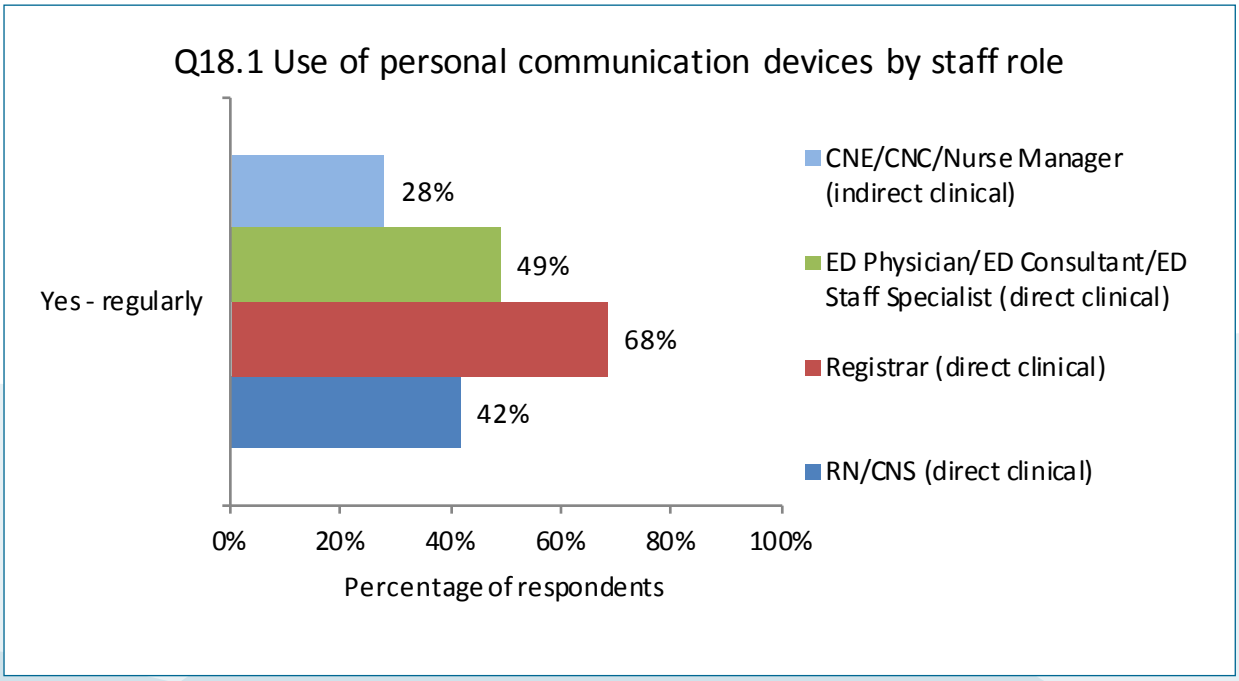
7. The index aggregates clinical answers across the options at Q7 in regarding research needs (i.e. more information about certain conditions and diseases, clinical guidelines and current practice, unfamiliar medications or drug brand names, drug/medication therapy and doses, procedure techniques, household products (e.g. in case of overdose) and anatomy queries).

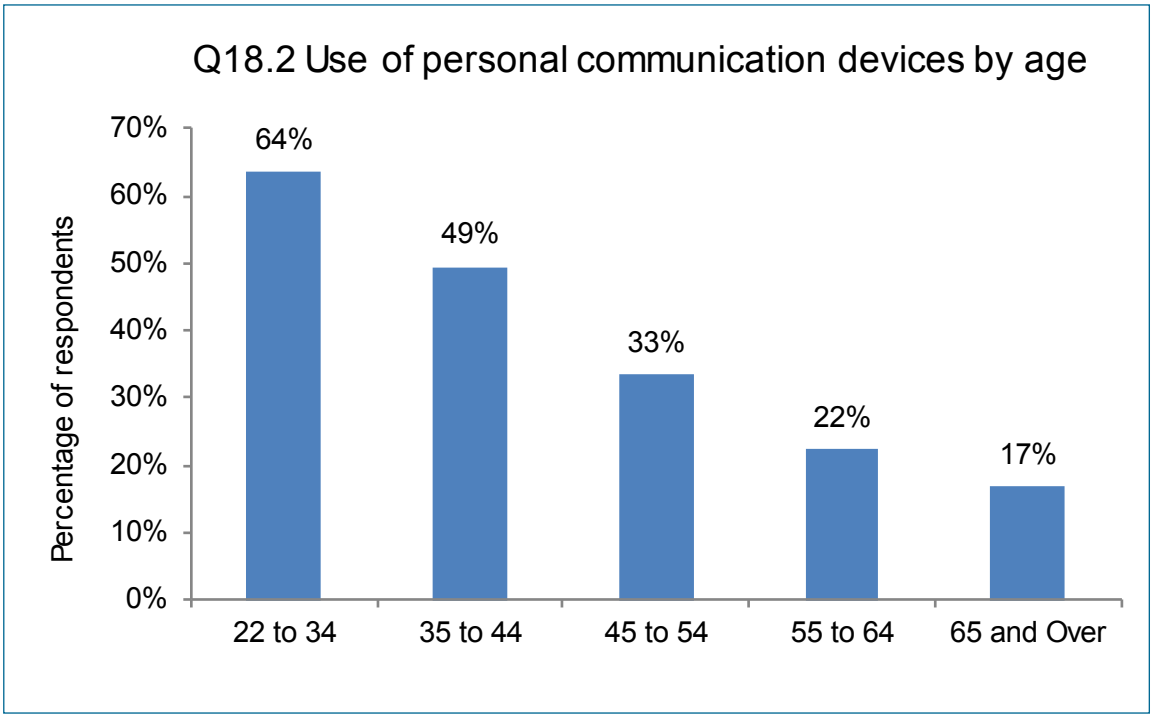
2.18 Use of personal communication devices to access medical resources

Use of personal communication devices to access medical resources is widespread, with 69% of respondents using their device, and 45% doing so regularly. This shows that a high proportion of ED staff are using the Internet, through their own 'paid for' personal communication device. This access is outside employer IT restrictions.



The proportion of respondents that regularly uses personal communication devices to access medical resources varies by staff role. Over two thirds (68%) of Registrars used their personal communication device to access medical resources, compared to 28% of CNE/CNC/Nurse Managers.

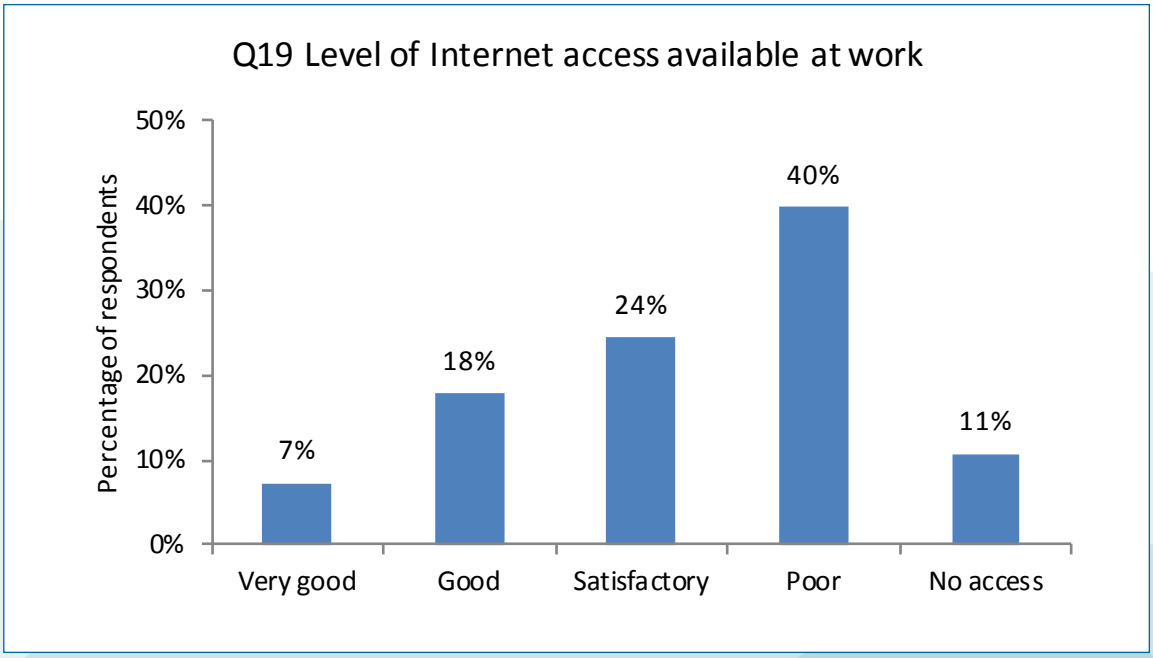




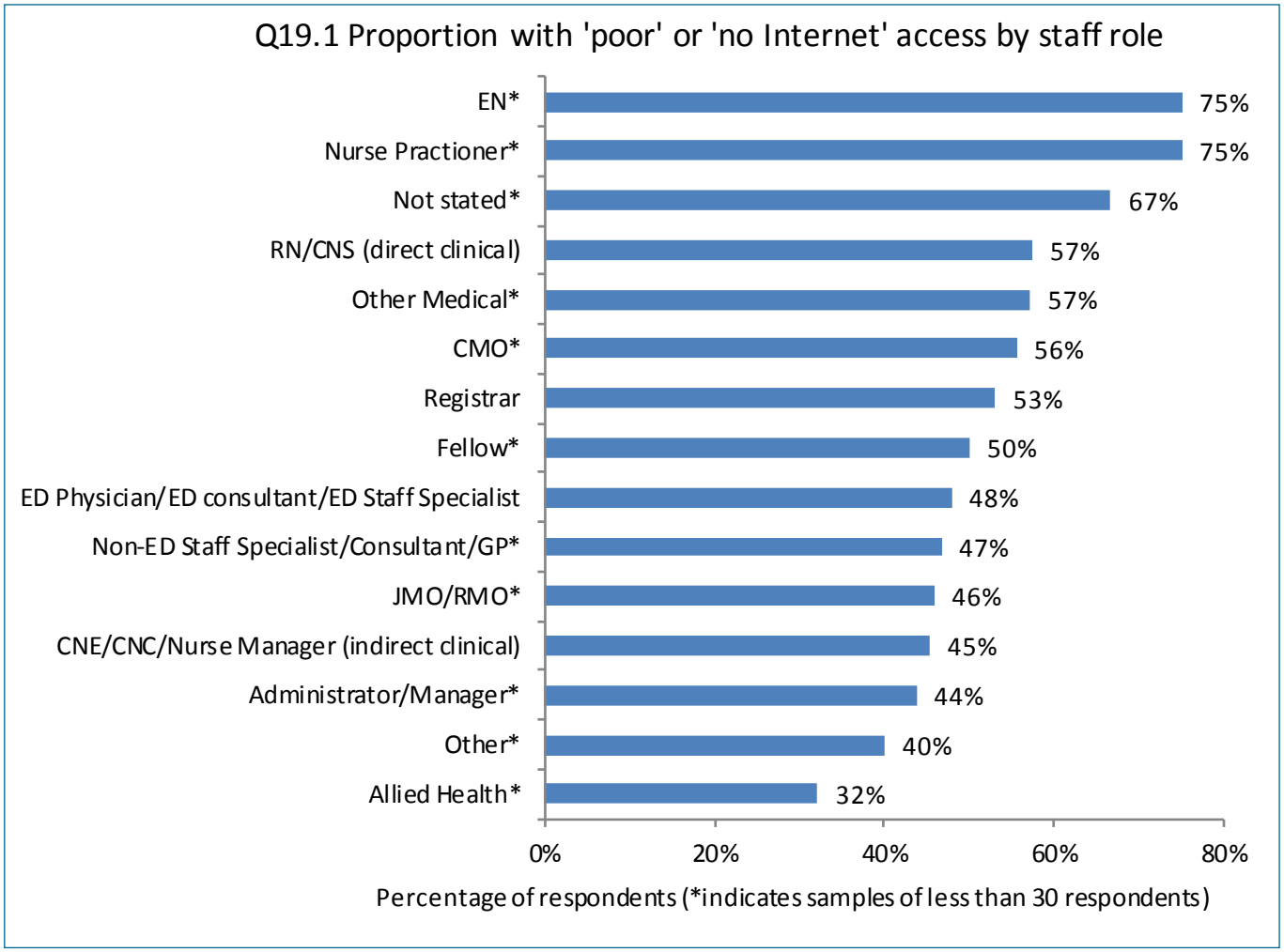
2.19 How would you rate the level of Internet access available at work

One half of respondents reported that the level of Internet access available at work was poor or that there was no access (51%), with the remainder reporting satisfactory, good or very good access (49%).

Interestingly, free text comments received overwhelmingly reflected dissatisfaction with the respondents' level of Internet access, even where this access was rated as 'satisfactory' or better.



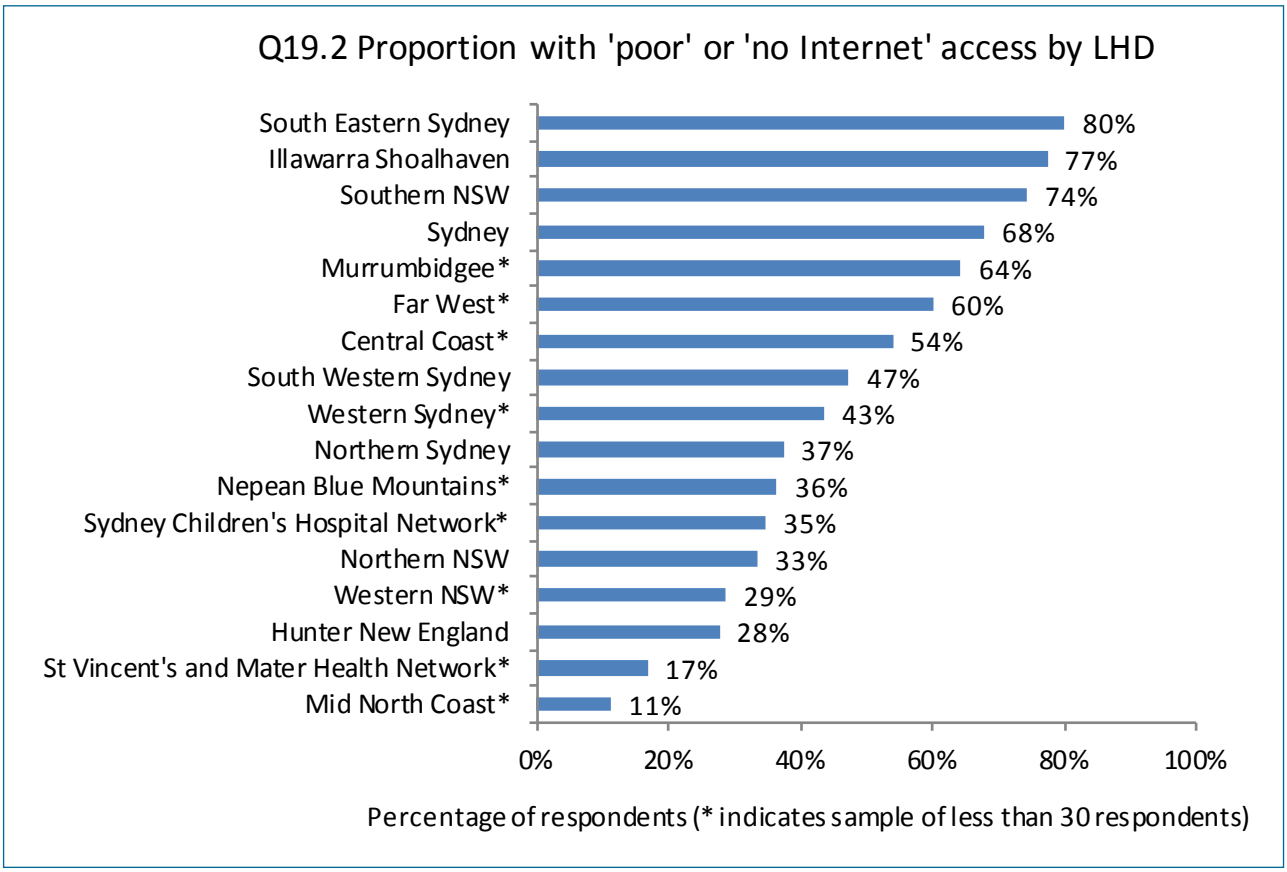
The level of poor or no access ranged from 45% to 57% depending on staff role (plot Q19.1). There was little aggregate difference between medical and nursing. It is likely that if Internet access is poor at one site, it is likely to be poor across the site for all staff.



A few respondents reported a staff role difference in general comments:

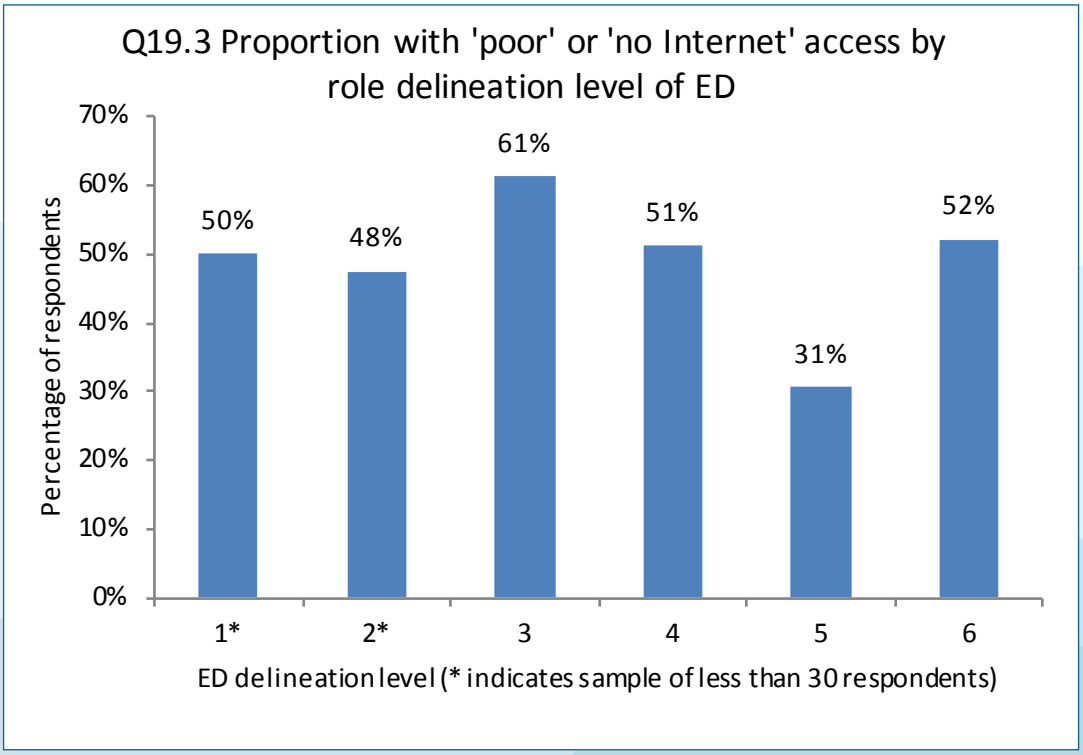
> *"Only doctors have Internet access and I feel that nurses would also benefit from Internet access. There is information nurses seek that is not available on the intranet ..."*
>
> *"Clinical Nurses do not have Internet access. They often use the medical staff login"*
>
> *"I found it very strange that a "sole RN" in an ED with no doctor was denied Internet access when ENs in the same department are allowed access"*

The LHD was a significant factor in Internet access. The poorest access was found in South Eastern Sydney LHD (80% poor or no access) followed by Illawarra Shoalhaven (77%). The proportion with poor or no access was much lower in Hunter New England LHD (28%) and also in Northern NSW LHD (33%).



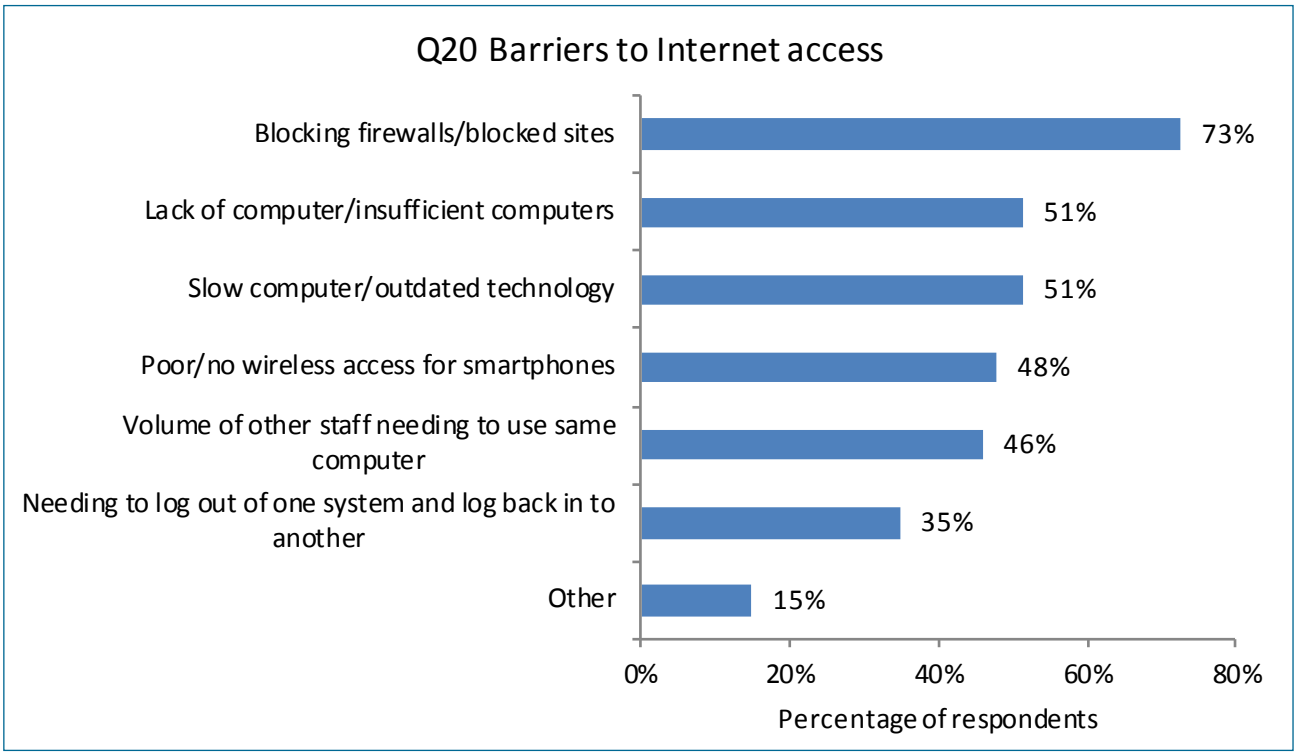
No LHD had a high proportion of 'very good' access, with the best being Hunter New England LHD with 17% reporting very good access.

Poor access appears across all ED role delineation levels. Facilities with role delineation level of 5 have a lower proportion of poor or no access. However, this appears to correlate with LHDs, as six of the 12 level 5 facilities occur in LHDs with better access (Northern NSW, Mid North Coast and Hunter New England LHDs).



2.20 Barriers to Internet access

Respondents were asked about the barriers to Internet access. The main barrier was blocking firewalls/blocked sites (73%), followed by lack of computer/insufficient computers (51%) and slow computer/out-dated technology (51%). Other factors which were also significant were poor/no wireless access for smartphones (48%) and volume of staff needing to use the same computer (46%).



These results show that Internet access in EDs is not just about direct access to the Internet and firewalls, but also a range of other factors, in particular, the number and availability of up-to-date computers for staff to use, and the availability of wireless access for smartphones or other devices. Respondents also commented on matters such as the complexity resulting from a generic log on system.

"Often there is a generic log on to the computer that has VERY limited access to online resources and requires you to enter a specific user name/password to access additional sites, very frustrating."

"Even if an individual has access to the Internet, the availability of computers is so poor you'd have trouble for that reason."

"Wireless system used on COWs [computers on wheels] wireless system keeps on dropping out. Wireless system not available for personal devices, I use my own download."

"The computer technology is slow and cumbersome."

"I think these days, every ED needs to have a few computers with Internet access without needing special username and passwords. For example, in some places you can connect to the Internet with the same user name and password that we use to connect to FirstNet which I think should be the same in all EDs. Needing to have different user names and passwords for Internet and FirstNet separately is very confusing and time consuming."

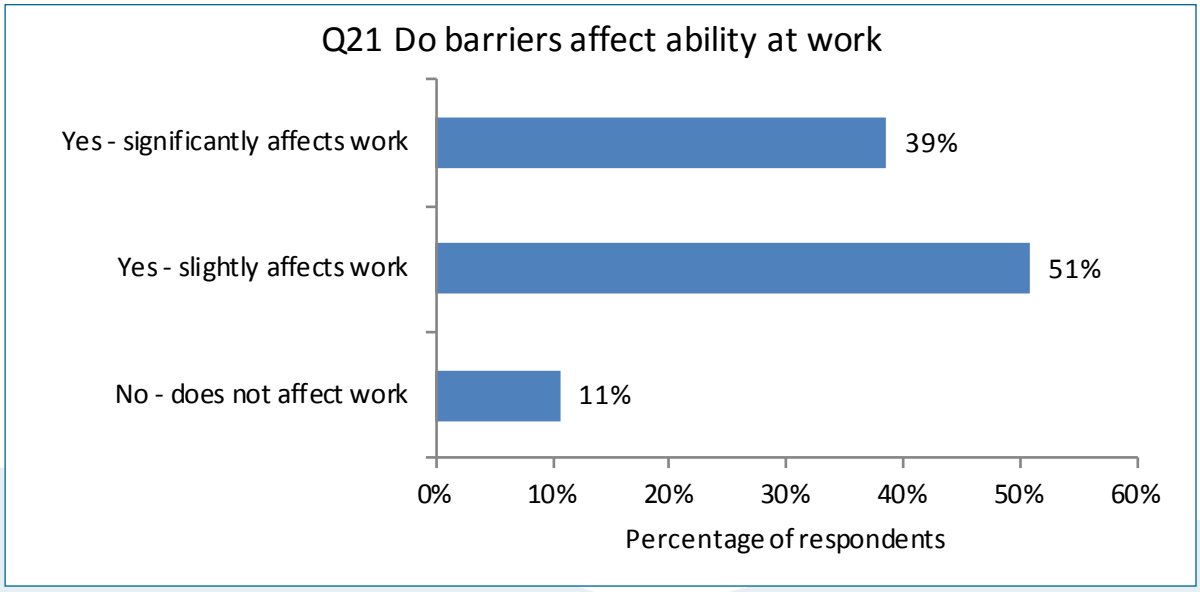
Strategies to improve access would therefore need to operate at a number of levels, covering soft and hardware, not just one solution.

Impact of barriers was also something raised by respondents, such as the impact on productivity.

> *"Hard to understand why access is so difficult, when it could speed up turnover."*
>
> *"Given the trend towards online information... it's a shame that so many of the resources we rely on for continuing medical education are not able to accessed at work, most often when it is needed urgently."*
>
> *"Hard to imagine another industry in which employees are blocked from accessing websites which are directly relevant to the work being performed and would improve their ability to perform their jobs."*

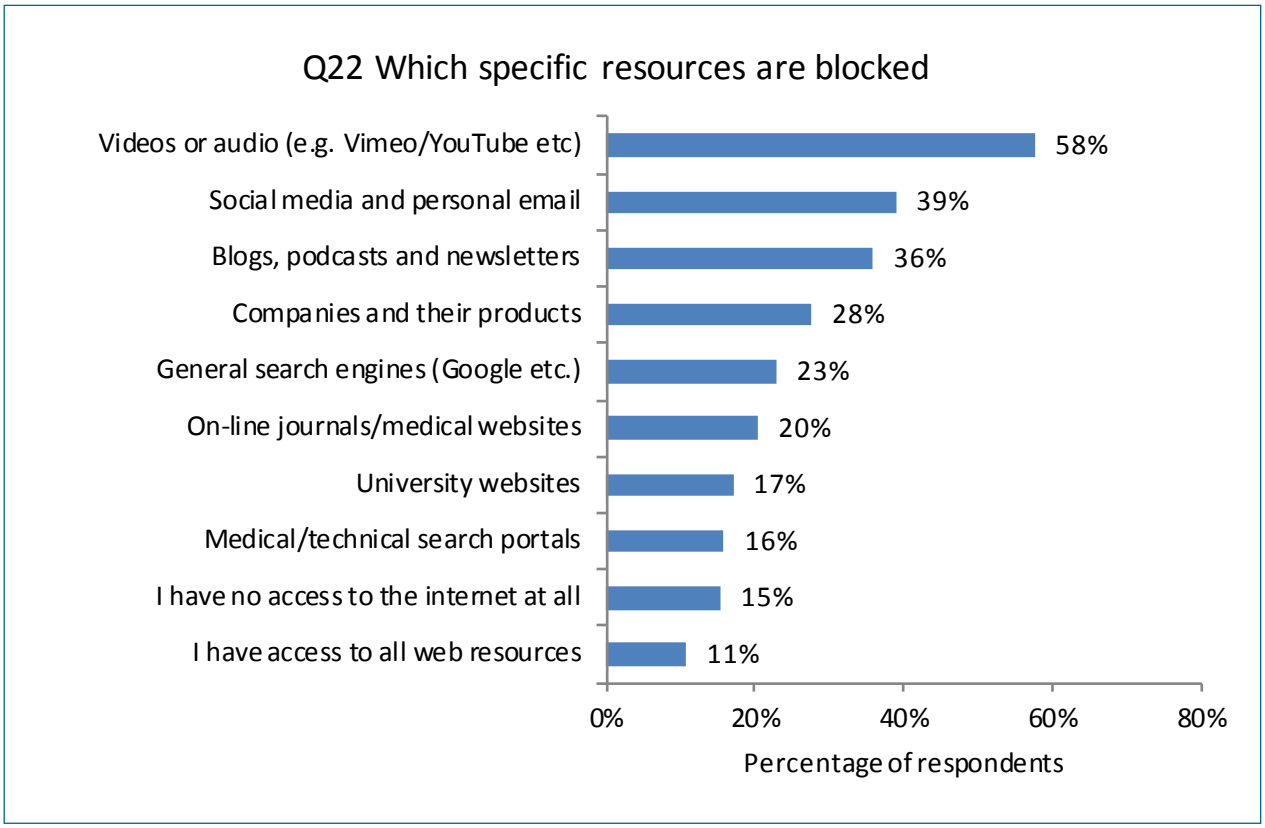
2.21 Do these barriers affect your ability to work?

The majority of respondents (89%) felt that these barriers affected their work, with 39% reporting they significantly affected work. Results did not vary significantly between staff groups.



2.22 Which specific resources are blocked

Respondents were asked about which specific resources were blocked. More than half (58%) were blocked from video or audio sites such as Vimeo or YouTube, and 39% were blocked from social media and personal emails, with 36% blocked from blogs, podcasts and newsletters.



These results suggest a very mixed and inconsistent picture of blocking, as the majority seems to have access to at least one or two of the options provided and then are blocked from others. Several respondents felt this was inconsistent with existing organisational priorities.

"Blocking of sites quite random - I can book a hotel in South Africa but can't get to some medical sites I try."

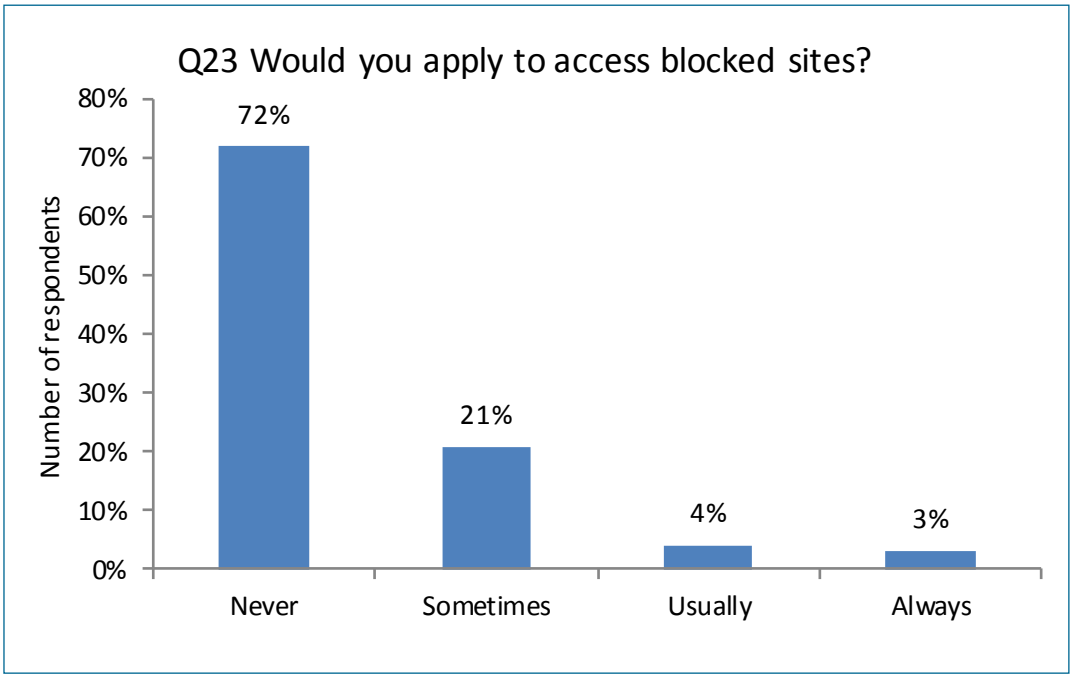
"I understand why the hospital blocks certain sites e.g. social media, YouTube etc. to the majority of staff... but being able to have access to clinical videos would be beneficial."

"I can understand the restriction of access to sites such as Facebook, but not being able to do a generic Google search on a disease process or medication makes sourcing the information frustratingly slow. Resources via CIAP are available, but are difficult to navigate, and are often crowded by irrelevant information."

"I don't understand why this hospital has the most severe security restrictions out of any workplace I've been in. If it's about wasting time, we don't have enough time to waste it. I think a general workplace security firewall that blocks things like Facebook, downloading and porn websites would be sufficient. It would give us access to smaller websites for small medical businesses that may only need to be accessed once and allow us to be more productive at work without necessitating the use of our private hand-held devices."

2.23 Requesting access to blocked sites

Respondents were asked if they would apply to unblock sites that they could not access. The majority (72%) said 'never', and only 7% did so usually or always. It is understood that there are local systems and protocols to unblock sites which cannot be accessed, but these results suggest that in practice, they are largely not used.



Respondents added more detail about the problems of requesting access to blocked sites. They stated that the requests were refused, or resulted in more frustration. This suggests systems to request access to unblock websites are not working to address clinical priorities in all locations.

"As you would be aware, many links on Pillar sites (ACI, ECI) are blocked by LHD at local level i.e. everything is on the black list. To get a site on the white list, one has to complete a form (separate form each time), get approved and signed by manager and send to IT for approval and listing."

"An application to have a clearly relevant site unblocked is usually met with a non-sensical and poorly coherent refusal. This reduces incentive for further applications thus propagating the harm that IT related policies pose to patient care."

"Have talked to CEO but there has been no response in reinstituting 'Up to Date'."

"I have seen the lack of response to attempting to get sites unblocked, so why continue wasting time and effort. It was easier and got timely results, to buy a smart phone and sign up for a new phone plan."

2.24 Does the level of Internet access differ in other workplaces?

Forty one percent of respondents reported that Internet access differed in other workplaces, while 31% reported it did not. The question was not applicable for 28% of respondents who presumably had not worked in a previous location, or had not accessed the Internet there.

2.25 Respondent final comments

Most respondent comments made in the survey reinforced lack of access. A full list of comments is provided in Annex B.

Additional themes mentioned by respondents were as follows.

Some felt the current system just seemed illogical, an insult to their personal integrity, or just not supportive of clinical care provision.

> *"Illogical, staff can access the web anyway though hand held devices."*
>
> *"I find it… insulting that my professional integrity is questioned by not allowing full Internet access and it denies myself, peers and patients a knowledge base that can affect care."*
>
> *"Pathetic. My primary school children have less restricted access at school than we have at work. Apart from the intranet and specific accessible websites, Internet access is restricted. Searches cannot be undertaken. Unless the information you seek is on a previously approved website or CIAP, you are out of luck."*
>
> *"If we had Internet access in our ED it would make a huge difference, for not only nursing staff, but doctors as well. It would be amazing."*
>
> *"The Internet is a very important up-to-date resource that should be accessible by all nurses and doctors within the ED. We are living in the dark ages. I find it very frustrating that nurses are not allowed Internet passwords and are expected to be an encyclopaedia."*
>
> *"Lack of access compromises patient care."*
>
> *"Crucial, however, not available."*

However, two respondents did state that in their location they had had problems with staff using the Internet inappropriately.

> *"We have had quite some issue in the past of staff doing quite a lot of private social media type activities while on duty. Multiple complaints from their colleagues."*
>
> *"I remember when [FaceBook] started, and it certainly distracted people from working before it was blocked!"*

CHAPTER 3
DISCUSSION

This Internet use survey sought to better understand Internet use in NSW EDs. By identifying the demand for internet access that respondents were faced with and determining how, or if, these needs are being met, it is possible to discover any mismatch or gaps in service, and whether these affect the day to day work of ED clinical staff and ultimately, the care offered to our patients.

In terms of demand, the survey showed that respondents were faced with a wide range of clinical questions, research needs and areas of uncertainty. The types of questions respondents needed answers to were typically clinical and related directly to patient care. Approximately half of the medical staff surveyed (47-52% of ED Physicians/ED Consultants/ED Staff Specialists and Registrars respectively) reported that they use on-line videos and audio such as YouTube and Vimeo to 'answer clinical questions'. Such media can lend itself well to demonstrate practical matters in real time, such as clinical procedures.

Thus the need for Internet access is diverse, and not just focussed on a number of established academic sources.

The majority of respondents reported that the speed in which answers to clinical questions was sought was 'immediate' (89%). This reflects that ED care is time-based, with often only a small window of opportunity to seek information.

The Internet was the most cited method to answer clinical questions. This suggests that the Internet is comparable to verbal communication as a means to provide information as part of normal working practice, i.e. very important.

However, while demand for information and Internet use is high, the supply of Internet in EDs is generally not meeting the needs of ED clinicians. One half of respondents reported that the level of Internet access available at their work was poor or that they had no access, and that the quality of access varied by geographical area. Internet access was found to differ from LHD to LHD, which suggests access to Internet is not based on general principles across the State.

Many staff in EDs share computers or have no work-based access. Related to this, 46% of respondents reported that a barrier to Internet access was the 'volume of other staff needing to use the same computer'. This is likely to create bottlenecks with shared computers and multiple staff trying to use the computer at the same time.

Access to the Internet is characterised and constrained by a number of technical factors with local Internet and IT services. In relation to barriers to Internet access, almost three quarters of respondents reported blocking firewalls / blocked sites. Other significant technical/resource constraints included:

- Lack of computer/ insufficient computers
- Slow computer /out-dated technology
- Poor/no wireless access

Thus, any strategy to improve Internet access needs to consider a number of technical and physical barriers, not just the blocking/restriction of website access on a local basis.

Difficulty with freely accessible employer provided Internet in ED is likely to encourage the use of personal communication devices to access necessary medical resources. Sixty nine per cent of respondents reported using their device to access medical resources, with 45% doing so regularly. Variation in the use of personal devices by staff role was evident and marked. This variation may be associated with respondent age, respondent role or their existing workplace provided Internet access or a combination of factors. For example, Registrars are younger, with 55% of registrars, 31% of RN/CNS, and 15% of CNE/CNC/Nurse Managers aged 34 years or under (data not shown), and registrars used personal devices at a substantially higher rate than both these other groups.

Few registrars (8%) have an allocated computer compared with, say, CNE/CNC/Nurse Managers (66%). However, over two thirds of registrars use a personal communication device. The need for immediate access to clinical information may be a factor affecting the uptake of personal communication devices if workplace access is not readily available.

Respondents indicated that where specific websites or Internet services are blocked, the majority would 'never' apply to obtain access (i.e. to unblock it). Processes to request access to certain websites typically take time with the need for signed authorisation forms and approvals. Requests are required on an individual website by website basis. Qualitative comments in the survey reveal that requests are refused and result in frustration.

> *"Application to have a clearly relevant site unblocked is usually met with a non-sensical and poorly coherent refusal. This reduces incentive for further applications ..."*

A number of the clinical research needs may also be one-off requests with no need to access the given website in the foreseeable future. This is another disincentive to submit an access request.

These findings suggest that processes to unblock particular websites are not working to address clinical priorities. Survey results also suggest computer allocation in EDs is not driven by clinical requirements, and that there is an organisational and system failure to understand that the computer with Internet access has become an essential real time clinical tool.

Ironically, with the availability of extensive, high quality clinical resources on the Internet (which by its nature outpaces the ability of EDs and hospitals to maintain their own in house on-line resources), EDs no longer provide an array of current and relevant Emergency Medicine textbooks. This may paradoxically mean that access to necessary information for clinicians at the point of care may be relatively worse than it was before we relied on IT solutions, and may be a contributor to the overall finding that the majority of respondents (89%) reported that barriers to internet access affected their work.

CHAPTER 4
CONCLUSION

Internet access should be regarded as an essential clinical tool in Emergency Departments.

In 2013, Internet access in NSW EDs is variable and does not meet routine clinical needs for immediately required information for the delivery of quality patient care. Limitations are due to policy, equipment and resource constraints.

It is likely that preventable adverse events occur in NSW EDs as a direct result of under-recognition of the role and responsibilities of the healthcare system and its custodians in providing a "safe environment" using systems-improvement tools[8], including readily accessible point of care Internet (i.e. at the point of clinical decision making).

Access restrictions on existing Internet services are bypassed by clinicians using personal devices. This not only undermines health service "control" of information used by clinicians in terms of the quality of content, but also potentially misses opportunities to implement guided decision making tools, and communicate with and engage clinicians in organisational priorities.

8. Harrison BT, Gibberd RW, Hamilton JD. An analysis of the causes of adverse events from the Quality in Australian Health Care Study. Med J Aust 1999; 170 (9): 411-415

ANNEX A
SURVEY QUESTIONS AND RESULTS

The following provides the survey questions with results. For questions 7 to 23 a breakdown in results is provided by staff role. Of the 557 responses 529 completed the survey (5% drop out).

1. PLEASE INDICATE WHICH MOST CLOSELY RESEMBLES YOUR PRIMARY ROLE	TOTAL
RN/CNS (direct clinical)	110
Registrar	102
ED Physician/ED consultant/ED Staff Specialist	94
CNE/CNC/Nurse Manager (indirect clinical)	79
CMO	29
Allied Health	28
JMO/RMO	25
Administrator/Manager	21
Fellow	17
Non-ED Staff Specialist/Consultant/GP	15
Other	13
Nurse Practitioner	8
Other Medical	8
EN	5
Grand Total	**554**

2. DO YOU WORK WITHIN AN EMERGENCY DEPARTMENT?	TOTAL
No	33
Yes	517
Grand Total	**550**

3. PLEASE INDICATE THE PRIMARY LOCAL HEALTH DISTRICT THAT YOU CURRENTLY WORK CLOSELY WITH OR IN	TOTAL
Central Coast	13
Far West	11
Hunter New England	73
Illawarra Shoalhaven	46
Mid North Coast	9
Murrumbidgee	28
Nepean Blue Mountains	12
Northern NSW	32
Northern Sydney	53
Other or not applicable	12
South Eastern Sydney	56
South Western Sydney	59
Southern NSW	36
St Vincent's and Mater Health Network	12
Sydney	34
Sydney Children's Hospital Network	27
Western NSW	14
Western Sydney	23
Grand Total	**550**

4. Please indicate the main Emergency Department that you currently work closely with or in

Responses were received from 91 EDs. They are not listed as this might enable the identification of who answered the survey in some small EDs.

5. PLEASE HIGHLIGHT THE AGE RANGE THAT IS APPLICABLE TO YOU	TOTAL
21 and Under	3
22 to 34	142
35 to 44	186
45 to 54	149
55 to 64	66
65 and Over	9
Grand Total	**555**

6. WHAT IS YOUR GENDER?	TOTAL
Female	319
Male	229
Grand Total	**548**

7. DURING YOUR WORK DAY, ARE YOU FACED WITH CLINICAL QUESTIONS, RESEARCH NEEDS OR AREAS OF UNCERTAINTY? (tick all that apply)	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
More information about certain conditions and diseases	99	91	86	63	25	16	24	6	15	13	7	8	6	3	**462**
Clinical guidelines and current practice	91	94	86	72	25	11	24	9	11	14	8	8	5	2	**460**
Unfamiliar medications or drug brand names	90	89	90	54	26	3	24	4	13	13	7	8	5	2	**428**
Drug/medication therapy and doses	96	92	85	53	25	1	24	8	14	13	5	7	6	2	**431**
Hospital policies	80	63	80	63	16	9	21	10	12	11	8	3	3	2	**381**
Procedure techniques	72	69	61	50	22	3	16	6	10	11	5	6	3	1	**335**
Household products (e.g. in case of overdose)	56	65	64	36	15	1	13	3	9	10	5	3	2	1	**283**
Anatomy queries	61	68	50	26	20	7	20	2	7	4	2	8	3	2	**280**
Community resources	58	42	53	42	12	17	16	6	5	7	8	3	5	1	**275**
Reviewing medication procedures	54	44	36	38	14		15	1	7	7	6	5	1		**228**
If other please specify	7	7	10	3	2	4	2	5	1	4	3		2	1	**51**
Other	8	7	4	4	2	4	2	2	1	3	4				**41**
NO - I do not have any such needs or areas of uncertainty	3	1	1			1		2			1				**9**
Grand Total	**110**	**100**	**94**	**76**	**28**	**28**	**25**	**18**	**16**	**15**	**15**	**8**	**8**	**4**	**545**

8. WHEN A CLINICAL QUESTION IS PRESENTED AT WORK, ARE YOU LIKELY TO SEEK ANSWERS IMMEDIATELY, LATER OR NEVER?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Immediately	93	95	91	65	26	25	23	12	16	13	10	7	7	4	**487**
Later	17	4	3	11	2	2	2	3		2	0	1			**47**
Never		1									1				**2**
Not applicable						1		3			4		1		**9**
Grand Total	**110**	**100**	**94**	**76**	**28**	**28**	**25**	**18**	**16**	**15**	**15**	**8**	**8**	**4**	**545**

9. DO YOU DO RESEARCH FOR THE PURPOSE OF GENERALLY KEEPING UP TO DATE, OR TO ANSWER SPECIFIC CLINICAL QUESTIONS?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Answering specific clinical questions	13	19	23	8	5	2	10	1	4	1	2		1		**89**
Keeping up to date	4	7	2	3	1	1	1	3		1	2	1			**26**
Both of the above	90	72	66	64	21	23	13	10	12	11	8	7	6	4	**407**
Do not do research	3	2	3		1	2	1	4		2	3				**21**
Grand Total	**110**	**100**	**94**	**75**	**28**	**28**	**25**	**18**	**16**	**15**	**15**	**8**	**7**	**4**	**543**

10. DO YOU READ MEDICAL LITERATURE OR DO MEDICAL RESEARCH MORE COMMONLY AT HOME OR AT WORK?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Home	31	31	27	13	7	2	7	3	3	3	1	1	2	2	**133**
Work	23	18	14	15	6	14	8	5	3	5	2		2		**115**
Both of the above	54	49	53	47	15	7	10	6	10	7	9	7	4	2	**280**
Do not read medical literature or do research	2	2		1		5		4			3				**17**
Grand Total	**110**	**100**	**94**	**76**	**28**	**28**	**25**	**18**	**16**	**15**	**15**	**8**	**8**	**4**	**545**

11. WHAT RESOURCES DO YOU USE FOR ANSWERING CLINICAL QUESTIONS? (tick all that apply)	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
On-line journals, guidelines, search tools, specific websites etc.	99	91	86	63	25	16	24	6	15	13	7	8	6	3	**462**
Speaking to colleagues	91	94	86	72	25	11	24	9	11	14	8	8	5	2	**460**
Workplace printed resources (e.g. folders of guidelines etc.)	90	89	90	54	26	3	24	4	13	13	7	8	5	2	**428**
Hard copy journals and text books	96	92	85	53	25	1	24	8	14	13	5	7	6	2	**431**
On-line video or audio (e.g. YouTube/Vimeo etc.)	80	63	80	63	16	9	21	10	12	11	8	3	3	2	**381**
Podcasts and blogs, e-newsletters	72	69	61	50	22	3	16	6	10	11	5	6	3	1	**335**
Library (personal or institutional)	56	65	64	36	15	1	13	3	9	10	5	3	2	1	**283**
On-line discussion groups, social media, twitter	61	68	50	26	20	7	20	2	7	4	2	8	3	2	**280**
Other	58	42	53	42	12	17	16	6	5	7	8	3	5	1	**275**
Grand Total	**110**	**100**	**94**	**76**	**28**	**28**	**25**	**18**	**16**	**15**	**15**	**8**	**8**	**4**	**545**

12. FOR ON-LINE LINE RESOURCES, HOW DO YOU LOCATE THEM? (tick all that apply)	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
General search engines (e.g. Google)	90	83	81	62	22	26	20	13	12	11	11	7	7	2	**447**
CIAP	73	88	90	62	25	16	22	12	15	13	6	8	4	3	**437**
Workplace intranet/resource (e.g. hospital Intranet or 'staffnet')	93	70	74	61	21	19	21	11	10	11	9	5	4	3	**412**
Specific medical-themed websites	31	37	51	23	10	5	8	3	7	7	4	1	3	1	**191**
Pubmed/Medline	34	26	47	30	7	8	10	3	9	5	2	6	3	1	**191**
Medscape	29	27	29	17	9	2	8	1	3	5	0	3	2		**135**
Cumulative Index to Nursing and Allied Health Literature (CINAHL)	29		4	24		5		6	1	1	2	5		1	**78**
Other	11	16	11	4	1	2	5	1	1	2	3	2			**59**
Grand Total	**110**	**100**	**94**	**76**	**28**	**28**	**25**	**18**	**16**	**15**	**15**	**8**	**8**	**4**	**545**

13. DO YOU FEEL CONFIDENT IN YOUR ABILITY TO ANSWER CLINICAL QUESTIONS USING ON-LINE RESOURCES?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Very confident	27	36	30	22	11	3	7		6	7	4	1	2	1	**157**
Confident	73	55	61	44	13	21	18	8	9	8	4	7	3	2	**326**
Not confident	9	7	3	9	3	4		3	1		3		2	1	**45**
Do not use on-line resources								4			1				**5**
Grand Total	**109**	**98**	**94**	**75**	**27**	**28**	**25**	**15**	**16**	**15**	**12**	**8**	**7**	**4**	**533**

14. WOULD YOU FIND IT USEFUL TO HAVE WEB TRAINING?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Very useful	43	24	23	30	6	11	1	6	3	5	3	4	3	4	**166**
Useful	41	33	39	25	12	8	9	4	5	3	3	3	3		**188**
Not sure	8	17	18	12	5	7	7	1	3	2	2	1			**83**
I have no need for training	17	24	14	8	4	2	7	6	5	5	5				**97**
Grand Total	**109**	**98**	**94**	**75**	**27**	**28**	**24**	**17**	**16**	**15**	**13**	**8**	**6**	**4**	**534**

15. DO YOU EVER COMMUNICATE WITH COLLEAGUES WHO DO NOT WORK IN CLOSE PROXIMITY TO YOU IN ORDER TO ANSWER CLINICAL QUESTIONS? (tick all that apply)	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	**TOTAL**
Telephone	80	79	75	66	24	21	16	9	11	15	8	7	5	4	**420**
E-mail	62	43	62	68	10	24	9	9	10	5	7	6	3	1	**319**
Walk to other part of hospital (e.g. pharmacy)	38	26	37	43	12	15	8	3	7	7	3	4	3	2	**208**
Text message	6	22	21	16	11	2	6	3	4	5	4	2	3		**105**
Tele-health	3	4	8	15	3	2		3	2	2	2	1		1	**46**
Social media	7	7	5	6		1	1				0		2		**29**
Other	3	1		3	2		1	2	1	1	0		3		**17**
Grand Total	**109**	**98**	**94**	**75**	**27**	**28**	**24**	**17**	**16**	**15**	**13**	**8**	**6**	**4**	**534**

16 If not mentioned before, please list any specific website search portals, or on-line search tools you use (e.g. specific blogs, podcasts, newsletter subscriptions) (free text)

17. USING EMPLOYER-PROVIDED IT RESOURCES, WHERE DO YOU ACCESS THE INTERNET? (I.E. WORLD WIDE WEB, NOT INTRANET) (tick all that apply)	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Allocated computer (in ED)	4	7	21	28		4	1	1	1	1	2	4			**74**
Allocated computer (outside ED)	2	1	11	20		6		4	4	3	2		3	1	**57**
Shared computer (in ED)	46	61	53	12	15	6	14	5	4	5	2	3	2	1	**229**
Shared computer (outside ED)	9	1		2	1	7			1		0	1	1	1	**24**
Do not access internet at work	20	12	2	4	7	2	5	2	1		2				**57**
At home	21	12	5	4	4	1	2	4	2	1	4			1	**61**
Other	6	3	1	3	1	2	1		3	4	0		1		**25**
Grand Total	**108**	**97**	**93**	**73**	**28**	**28**	**23**	**16**	**16**	**14**	**12**	**8**	**7**	**4**	**527**

18. DO YOU EVER USE A PERSONAL COMMUNICATION DEVICE (WITH A MOBILE INTERNET CONNECTION) AT WORK FOR ACCESSING MEDICAL RESOURCES? (E.G. IPAD, MOBILE PHONE)	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
No - do not own such a personal device (i.e. with Internet access)	12	5	7	4	2	2	1	2	6	2	0	1		1	**45**
No - do not use my personal device at work for this purpose	25	7	20	32	5	14		6			5	2	2	1	**119**
Yes - occasionally	26	19	21	18	6	8	6	5	6	6	2	2	4	1	**130**
Yes - regularly	45	67	46	21	15	4	17	2	4	7	6	3	1	1	**239**
Grand Total	**108**	**98**	**94**	**75**	**28**	**28**	**24**	**15**	**16**	**15**	**13**	**8**	**7**	**4**	**533**

19. HOW WOULD YOU RATE THE LEVEL OF INTERNET ACCESS AVAILABLE AT WORK?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Very good	5	7	2	9	2	2	2	2		4	1	1	1	1	**39**
Good	14	15	17	19	4	8	7	4	3	1	2	1			**95**
Satisfactory	27	24	30	13	6	9	4	3	5	3	4		2		**130**
Poor	39	43	44	30	9	6	8	4	7	7	3	6	4	2	**212**
No access	23	9	1	4	6	3	3	3	1		3			1	**57**
Grand Total	**108**	**98**	**94**	**75**	**27**	**28**	**24**	**16**	**16**	**15**	**13**	**8**	**7**	**4**	**533**

19A. HOW WOULD YOU RATE THE LEVEL OF INTERNET ACCESS AVAILABLE AT WORK?	VERY GOOD	GOOD	SATISFACTORY	POOR	NO ACCESS	GRAND TOTAL	% VERY GOOD OR GOOD	% POOR OR NO ACCESS
Central Coast	1	1	4	2	5	**13**	15%	54%
Far West		1	3	6		**10**	10%	60%
Hunter New England	12	15	23	13	6	**69**	39%	28%
Illawarra Shoalhaven	1	2	7	24	10	**44**	7%	77%
Mid North Coast		5	3	1		**9**	56%	11%
Murrumbidgee	1	4	5	15	3	**28**	18%	64%
Nepean Blue Mountains		4	3	4		**11**	36%	36%
Northern NSW	4	10	6	10		**30**	47%	33%
Northern Sydney	3	9	20	18	1	**51**	24%	37%
Other or not applicable	2	2	2	2	3	**11**	36%	45%
South Eastern Sydney	1	4	6	35	9	**55**	9%	80%
South Western Sydney	3	12	14	19	7	**55**	27%	47%
Southern NSW	2	3	4	19	7	**35**	14%	74%
St Vincent's and Mater Health Network	2	6	2	2		**12**	67%	17%
Sydney	2	2	6	17	4	**31**	13%	68%
Sydney Children's Hospital Network	1	6	10	9		**26**	27%	35%
Western NSW	2	3	5	3	1	**14**	36%	29%
Western Sydney	2	5	6	10		**23**	30%	43%
(blank)		1	1	3	1	**6**	17%	67%
Grand Total	**39**	**95**	**130**	**212**	**57**	**533**	**25%**	**50%**

20. WHAT ARE THE BARRIERS TO INTERNET ACCESS THAT YOU FACE? (tick all that apply)	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Blocking firewalls/blocked sites	72	66	85	62	18	17	12	10	14	9	9	6	4	3	**387**
Lack of computer/insufficient computers	41	63	60	30	14	10	16	6	11	10	5	3	4	1	**274**
Slow computer/outdated technology	50	51	55	36	14	16	9	7	10	5	8	6	6	1	**274**
Poor/no wireless access for smartphones	36	60	49	33	12	10	16	7	11	6	4	6	5		**255**
Volume of other staff needing to use same computer	39	55	55	22	15	12	16	3	9	9	4	3	2	1	**245**
Needing to log out of one system and log back in to another	30	36	41	25	10	10	5	6	6	6	2	5	3	1	**186**
Other	25	13	9	12	2	6	1	2	2	3	2	1	1	1	**80**
Grand Total	**108**	**98**	**94**	**75**	**27**	**28**	**24**	**16**	**16**	**15**	**13**	**8**	**7**	**4**	**533**

21. DO THESE BARRIERS AFFECT YOUR ABILITY TO WORK?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Yes - significantly affects work	39	44	44	19	14	7	9	3	7	6	2	5	3	2	**204**
Yes - slightly affects work	54	47	45	47	8	11	14	9	8	9	9	3	4	1	**269**
No - does not affect work	13	6	4	9	6	9	1	4	1		2			1	**56**
Grand Total	**106**	**97**	**93**	**75**	**28**	**27**	**24**	**16**	**16**	**15**	**13**	**8**	**7**	**4**	**529**

22. INDICATE IF YOU ARE UNABLE TO ACCESS ANY OF THE FOLLOWING RESOURCES DUE TO WEBSITE BLOCKING? (tick all that apply)	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Videos or audio (e.g. Vimeo/ YouTube etc.)	57	63	69	41	15	12	12	5	11	6	4	6	3	1	**305**
Social media and personal email	50	31	48	28	11	11	9	3	4	1	4	1	3	2	**206**
Blogs, podcasts and newsletters	38	36	42	29	9	8	7	4	6	2	1	3	4	1	**190**
Companies and their products	33	25	32	22	10	4	8	1	3	4	0	2	1	1	**146**
General search engines (Google etc.)	25	24	23	15	4	2	6	4	4	4	1	4	3	2	**121**
On-line journals/medical websites	20	19	23	11	8	4	4	3	4	6	2	1	2	1	**108**
University websites	21	22	14	9	6	3	3		3	3	2	2		2	**90**
Medical/technical search portals	19	16	21	6	4	3	3	1	4	4	0		2	1	**84**
I have no access to the internet at all	32	16	1	4	8	4	2	5	1	2	4			2	**81**
Please specify any particular websites/resources you would like better access	18	16	17	3	7	3	3	1	4	3	3	2			**80**
I have access to all web resources	7	5	5	20	1	2	6	2		3	2	1	2	1	**57**
Other	3	3	2	1	3	1	1			1	0		1		**16**
Grand Total	**106**	**97**	**93**	**75**	**28**	**27**	**24**	**16**	**16**	**15**	**13**	**8**	**7**	**4**	**529**

23. WHEN A SITE YOU WISH TO ACCESS IS BLOCKED, WOULD YOU APPLY TO HAVE IT UNBLOCKED?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Always	3	4	2	1	1		1			1	1			2	**16**
Usually	4	3	6	4			1	1		2	0	1			**22**
Sometimes	17	11	25	25	7	5		3	4	3	3	1	3		**107**
Never	76	77	60	45	17	21	22	11	12	8	8	6	4	2	**369**
Grand Total	**100**	**95**	**93**	**75**	**25**	**26**	**24**	**15**	**16**	**14**	**12**	**8**	**7**	**4**	**514**

24. DOES THE LEVEL OF INTERNET ACCESS AT YOUR WORKPLACE DIFFER FROM OTHER WORKPLACES YOU HAVE WORKED?	RN/CNS (DIRECT CLINICAL)	REGISTRAR	ED PHYSICIAN/ CONSULTANT / STAFF SPECIALIST	CNE/CNC/ NURSE MANAGER	CMO	ALLIED HEALTH	JMO/ RMO	ADMIN/ MANAGER	FELLOW	NON-ED STAFF SPECIALIST/ CONSULTANT / GP	OTHER OR BLANK	NP	OTHER MEDICAL	EN	TOTAL
Yes	41	41	30	22	14	9	15	8	9	8	7	3	6	1	**214**
No	24	41	40	28	5	5	6	4	4	4	1	1			**163**
Not applicable	41	15	23	25	8	12	3	4	3	3	4	4	1	3	**149**
Grand Total	**106**	**97**	**93**	**75**	**27**	**26**	**24**	**16**	**16**	**15**	**12**	**8**	**7**	**4**	**526**

25. Any other comments on internet access in your Emergency Department (free text).

ANNEX B
FREE TEXT COMMENTS

The survey captured the following free text comments.

- I require internet access but this has not been approved previously. I have requested internet access again to be able to utilise a Google calendar that consultants use and other tasks as requested by consultants.
- Internet access is useful for Clinical needs, Clerical and Clerical Managers do not need access. Our Current Clerical manager spends too much social time on the Internet which impedes on her work load associated with the Clerical needs of the dept. Was booking tickets for XXXX the other day and got upset because I interrupted her. Always doing things for her children for school. Should be taken off her.
- More internet access needed for on the floor RN and EEN not just Manager.
- Allied Health Need a separate area in the ED to access computer resources.
- Not all staff have access, e.g. can't ask ward clerk to print of resources for families as they can't access.
- Not enough computers for the amount of people.
- Very difficult to access internet in ED.
- Not applicable.
- Access to computers is difficult.
- It would be fantastic to have fast, reliable access to internet to help me look up things I need to check quickly during an examination e.g. anatomy etc.
- All shared computers should have internet access and there should be wireless access within the department. Medical staff are on personal devices using their own data to research procedures/treatment options etc. for their patients.
- Internet access is integral to performing tasks required in my role in ED.
- It's great when it works. Our medical records system EMR which goes through the internet is our major cause of frustration, even that has improved lately. For example, yesterday am the notes were crashing and I was not able to get pathol results for some hours, and I was not able to access protocols or any short of internet related to work such as up to date drugs etc all day.
- Pathetic. My primary school children have less restricted access at school than we have at work. Apart from the intranet and specific accessible websites internet access is restricted. Searches cannot be undertaken. Unless the information you seek is on a previously approved website or CIAP you are out of luck.
- I work between NSW and Vic and find it frustrating to have to battle to try and get access to internet sites within most departments. As a CMO it took a much longer time to work out where to try and get access and perhaps in Metropolitan EDs this would be more streamlined but in regional areas where afterhours IT access for these types of issues can be difficult there should be a better way.
- Slow connections at times and browser times out.
- Because it is blocked I have not been shown what other sites/resources I could be using. Most of my information now comes from Up to Date.
- Has not been made a priority, not user friendly, as I work occasional shifts.
- I have seen the lack of response to attempting to get sites unblocked, so why continue wasting time and effort. It was easier and got timely results, to buy a smart phone and sign up for a new phone plan. Maybe that is what the department of health would rather us do, as it saves them money.

- As a clinical educator I have access to the internet, unfortunately other staff do not have this ability.
- If we had internet access in our ED it would make a huge difference, for not only nursing staff, but Drs as well. It would be amazing.
- Being a C/L Psychiatry CNC there are few resources dedicated to MH issues in the ED itself, having internet access, both in the department, and at my workstation enables me to create learning resources that would otherwise not be within the budget or justify the time involved, in medium/small rural referral hospital.
- Some access for education etc would be valuable.
- General ED floor staff should have access to the internet to perform tasks in a way they would search for things on their home PC. More time and education on how to use internet resources that they do have available to them such as CIAP.
- In small rural facilities the time available to search for information via Internet is limited due to the minimum number of staff on duty. The 2 staff are also responsible for the Acute Inpatients,Residential Aged Care clients and also ED.
- Our Community Department does not have computer access.
- Slow.
- The internet is a very important up-to-date resource that should be accessible by all nurses and doctors within the ED. We are living in the dark ages. I find it very frustrating that nurses are not allowed internet passwords and are expected to be an encyclopaedia. Triage nurses need the internet to look up obscure patient conditions and learn. I find it frustrating that I cannot use Youtube / other videos for teaching purposes. Everyone uses their own mobile phone for internet access because they don't have access to the internet at work.
- I understand having social media blocked but general internet shouldn't be blocked from use as it is a very useful tool in A&E.
- Need more computers!
- I don't think we are working with out-dated policies and systems in regards to IT and this is affecting clinical care.
- Clinical Nurses do not have internet access. They often use the medical staffs login. They have access to everything that NSW health contains on their website such as journals and CIAP. We have had quite some issue in the past of staff doing quite a lot of private social media type activities while on duty. Multiple complaints from their colleagues.
- Ipads for ambulance triage would be a good start, with linkage program to iPM nursing staff don't look up info in ED, the use of iPM and constant computer usage prohibits use of computers for learning/sourcing info.
- it's the modern way, blogging is a form of communication that we need to embrace.
- We have a Wi-Fi for COWS but unable to use it on personal devices. Some staff abuse their internet access therefore making it difficult for others with a need to get it.
- Internet access at CHW is BETTER than most other services.
- Internet access that is fast and easy to access would benefit all staff and patients in ED.
- As you would be aware many links on Pillar sites (ACI ECI) are blocked by LHD at local level i.e. everything is on black list. To get a site on the white list one has to complete a form (separate form each time), get approved & signed by manager & send to IT for approval & listing.
- Has a variety of uses.
- To unblock sites, fill in the forms get them counter signed then wait for a committee to approve - waste of time.
- We are only able to access yellow and white pages. It is extremely frustrating that we cannot use the internet to look up relevant medical information. I think it is appalling that this is restricted. I am unable to present talks due to the lack of access to on-line resources that I would normally use in a presentation.
- We have many locum doctors so I do encourage them at orientation to get their own password to allow greater access to clinical resources especially as sometime Firstnet is not operating.
- This is particularly a problem for junior doctors in the clinical areas of ED where they have NO access whatsoever to internet!
- Most departmental resources are on intranet making access to computers a high priority.
- Mostly waste of time and much easier to use own computer and internet access separately.

- I understand why the hospital blocks certain sites e.g. social media, YouTube etc to the majority of staff (I remember when FB started, and it certainly distracted people from working before it was blocked!) but being able to have access to clinical videos would be beneficial.
- I think staff should have Wi-Fi access -so that they can use a personal device e.g. tablet or smart phone to rapidly access clinical info and not hold up the use of the desk top computer --- also you should be able to access the FirstNet lists and power chart from Wi-Fi and at home when on call and having to give advice to ED regs.
- Have talked to CEO but there has been no response in reinstituting Up to date.
- Broadening access would be good, but there always seems to be concern about inappropriate use - I don't think this is justified in the majority of cases.
- There should be a Firstnet app for iPad, and AirPrint facilities available.
- All clinical and health system areas should have open, fast internet access and wireless available for personal devices.
- Blocking of sites quite random - I can book a hotel in south Africa but can't get to some medical sites I try.
- Most of us who work on the front line are adults. We need free, fast, reliable access to the web in order to find the best solutions for the multiple problems we and our patients face each working day.
- Out-dated technology is a big issues and poor connection speed.
- No Wi-Fi so I end up paying for most of my access myself as using phone as computers often busy, slow or sites blocked. Reception poor so use phone standing in ambulance bay!
- The firewall at our hospital is ridiculous- I am frequently unable to get into websites so I now bring a laptop and I hot sync it with my iPhone in order to access websites but unfortunately this burns through my data allowance and is very costly!
- Internet access is allowed only when i log on to an ED computer with my own password. I cannot access Google to look at rashes, i cannot download patient info sheets that are not accessible via CIAP. I have had to apply to have betterhealth.vic.gov.au added so that we have ready access to patient info handouts. I don't even know if the intranet allows me to see the ECI website, as the only time I've accessed it has been from home (like now, to do this survey.).
- Much less Most office workers are continually attached to the web.
- Application to have a clearly relevant site unblocked is usually met with a non-sensical and poorly coherent refusal. This reduces incentive for further applications thus propagating the harm that IT related policies pose to patient care.
- Internet access is reasonable.
- It needs to get with the 21st century: if they are trying to block "inappropriate use" find a better way to do it: they are interfering with clinical care, slowing down process, prohibiting access to patient information....all for what??
- You didn't discuss exactly wireless access in the ED on a personal device, which we have. Nor remote access to the ED files which we have. Although you discussed out-dated software, Internet Explorer versions, GroupWise and Windows 6 are noteworthy.
- What are they frightened of? We might get information?
- By following archaic and draconian policies, new technology, smart phones etc are not utilised at all where patient management is concerned. For example, the District does not allow internet / data access for all official phones.
- Poor, we even have a senior leader at xxxxx who sent a memo to all staff, including doctors and nurses and nurse practitioners, banning all mobile phone use.
- Generally the worst access I've ever seen.
- Should always have full internet access in ED.
- Firewalls major issue eLearning.
- Lack of access compromises patient care.
- Need more computers! Otherwise how will we get benefit from Dragon Direct voice recognition?
- Apart from so many useful websites being blocked, there is no WIFI network and the computer technology is slow and cumbersome.

- I don't understand why this hospital has the most severe security restrictions out of any workplace I've been in. If it's about wasting time, we don't have enough time to waste it. I think a general workplace security firewall that blocks things like Facebook, downloading and porn websites would be sufficient. It would give us access to smaller websites for small medical businesses that may only need to be accessed once and allow us to be more productive at work without necessitating the use of our private hand-held devices.
- Regularly take calls from EDs where access is restricted for those in those EDs.
- I ended up installing a personal phone line and ADSL connection to access my work server by VPN. The hospital couldn't get their head around access through the firewall. The do pay for the connection though. That is mainly for ward work though.
- My private workplace is unlimited and great-should be the same for work related sites in ED.
- Computerised record in but not on the ward.
- I guess responsible use of the internet applies to all work places - it just depends on the resources being used as needed and correctly.
- aging computers and programs are not up to date so are unable to access all the resources that are available.
- Internet access should be available to everyone as needed without wasting time to ring the IT dept. Internet charges are not as exorbitant as they used to be but NSW Health have not kept up to date with the changes in costs!!! I'll probably be retired by the time this changes in NSW Health!!
- Hard to understand why access is so difficult, when it could speed up turn over.
- Blocked websites wireless system used on COWs wireless system keeps on dropping out. Wireless system not available for personal devices, I use my own download.
- Keeping up to speed whilst on the internet is imperative for a good functional and healthy workplace. Better informed employees and therefore in turn helping patients.
- The nurses use it to do internet banking etc at work sometimes and checking Facebook, however this is minor, I let them use the laptop and internet as it enables them to also look up info.
- NSW Health needs to recognize that immediate online access to all resources (not just intranet) for all staff is, in 2013, basic to the efficient function of all employees and contractors.
- only limited staff have internet access i.e. the managers, community health or infection control and WHS officers within our facility.
- Need up to date hardware and monitors Need access to private practice notes Need more PC's - not enough workstations.
- It would be great if we had access to Wi-Fi at work so that internet access would be fast. Alternatively it would also be good if internet access is provided for the auto logon system so that we would access the net quickly in an emergency without having to log out of the system and then logging back in under the personal username.
- Hard to imagine another industry in which employees are blocked from accessing websites which are directly relevant to the work being performed and would improve their ability to perform their jobs.
- Even if an individual has access to the internet, the availability of computers is so poor you'd have trouble for that reason.
- We need more computers, and if we could access the hospital Wi-Fi, I would buy an I-phone to access medical resources/apps.
- Crucial ,however , not available.
- It will provide us to access clinical resources for better care and shorter time frame.
- We need more computers.
- Should be less restrictive. We have no time to use it inappropriately anyway.
- No problem with access, although we do not have e ought computers.
- Unfortunately non existent.

- Given the trend towards online information and FOAM, it's a shame that so many of the resources we rely on for continuing medical education are not able to accessed at work, most often when it is needed urgently. The structure of our intranet site is also dismal - while there is useful information on it (e.g. guidelines), it is impossible to access unless you know exactly where to look. The intranet search engine is also of no help - never locates what you need.
- Often, it is necessary to access the internet on a computer that is connected to a working printer - often this is not available. Also, due to lack of desk space, staff often sit in front of a computer to perform non-computer work, thus blocking other staff from accessing the computer.
- Not having enough computers.
- Would be great to have a Wi-Fi network at work.
- I think these days every ED needs to have few computer with Internet access without needing special username and password. For example in some places you can connect to Internet with same use and pass that we use to connect to First Net which I think should be the same in all ED's. Needing to have different use and pass for Internet and First net separately is very confusing and time consuming.
- It is necessary to have easy access to Internet in EDs as it helps with patient care e.g. most patients know their GP but not the medical centre and we have to google to find the number etc.. In busy ED no chance to abuse so access should be simplified, no filling out forms and executives signature to get access just one off verification of employment.
- Need more and better/faster computers.
- Ideally, there should be computers set aside that are used just for internet searches.
- Internet access is indispensable for appropriate patient care. Thanks for looking into this.
- Hospital Wi-Fi please with access I don't need to sign my life away for.
- We need Up to Date back!!!!!
- Internet access is essential for efficient work. Access to computers in the ED and available WIFI are the main barriers to access to medical information.
- A few colleagues do have Internet access, but the process for obtaining access is not clear.
- should be an integral part of our working day; written resources are few in our department, and feel confident in ability to access reliable information on line.
- I feel I have enough internet access.
- Generally good; would be helpful to unblock YouTube from medical sites for instance our own learning site Medinuggets. Wi-Fi for smartphone devices would also be helpful.
- Wi-Fi access and the ability to print from personal devices would allow the ED practitioner to evolve to a more efficient level. For example generation of radiology imaging requests or completion of proformas i.e. sedation of insulin regimes. Access to CIAP or CAP on a personal handheld device would permit beside data entry and improve efficiency and legibility.
- Slow, old computers, sites blocked that are very useful educationally. Very poor in general.
- It would be much easier to have a password prompt when attempting to access an external website rather than log the whole computer off and on again.
- Internet access will make hospital systems prone to viruses and malware.
- Inability to access the internet is a retrograde practice.
- Internet access would greatly help in providing better care for patients.
- Internet access in the emergency department should be available to clinical staff as it allows us to adequately assess and treat out patients better with appropriate information available at our fingertips without needing lots of time to search.
- More access codes given out to non-Medical staff please.
- We should not be restricted with time limits, and the diversity of internet sites accessible should be expanded.
- All staff should have internet access.
- I find it a constant issue to not even be able to access links that are provided on intranet, and find it insulting that

my professional integrity is questioned by not allowing full internet access and it denies myself, peers and patients a knowledge base that can affect care.

- Not all staff has internet access not enough computers to staff ratio especially when all the data is computer based
- As stated before, only doctors have internet access and I feel that nurses would also benefit from internet access. There is information nurses seek that is not available on the intranet and internet access would overcome this barrier. If we needed to seek information relevant to practice, we would be able to do so quicker and learning would be improved.
- I thought that staff accessing the internet for personal reasons was not allowed?
- Very restrictive and inhibiting Dark ages!
- Most access is blocked. Most emails for 3rd parties that contain information or links (such as this survey) are blocked. No Google. CIAP only.
- Hard wearing large mobile device would be good.
- We have a one hour block in 24hours to use the internet.
- No Internet for nursing staff.
- This lack of internet access is reflecting on poor patient care often, is a problem for staff (often discussing this at breaks), encourages staff to share passwords to ease our day and to access resources easily. Technology is a necessity today, and to have selected staff only to have internet access creates a social distinction that encourages the "I'm more important that you" mind set. I would be happy to pay for my internet access if needed, and I would claim it as a tax deduction. To even complete this survey I needed internet access, could not be completed without it. This highlights the importance of us having internet access, as well as for our clinical and research needs.
- Poor access, only one computer for internet.
- Access of clinical database is no consistent.
- There really is no access.
- Often there is a generic log on to the computer that has VERY limited access to online resources and requires you to enter a specific user name/password to access additional sites, very frustrating.
- Wireless internet would be an asset here. We have a "COW" (computer on wheels) in order to triage the patient at their bedside, however we are unable to use this effectively as we need to plug in the computer in for internet access.
- This should not just be about the emergency department. All areas within hospitals are affected. It is often not possible to request for sites to be unblocked if the computer is logged into a generic log in as the site can only open email for requests in outlook if the whole computer is logged in to a personal account. EVERY other hospital I have worked in over the past 10 years in Victoria allows full Internet access bar some social media sites like Facebook and eBay. In my opinion NSW health is significantly behind the times and crippling staffs ability to use the biggest resource freely available to them.
- When asked about things in ED you like to be able to get it quickly and easily, this doesn't occur as the access is not there. and the resources that are there can take ages to find and you end up giving up because you have wasted a lot of time.
- Internet access would allow staff to find clinical answers more efficiently than our current Intranet site.
- Too slow out-dated browsers.
- ECI educational video is blocked in our hospital.
- Better Internet shortcuts and tools available in other area health services.
- I think we need to "get with the times", the software and the computers need to be updated and the internet access needs to be significantly improved. CIAP also needs to increase its journal coverage.
- I can understand the restriction of access to sites such as Facebook, but not being able to do a generic Google search on a disease process or medication makes sourcing the information frustratingly slow. Resources via CIAP are available, but are difficult to navigate, and are often crowded by irrelevant information.
- As part of my portfolio I have applied to have internet access - six weeks later I'm still waiting.

- As working in a District Hospital and sometimes with the ward being busy I am it until the Dr comes and some background information on a patients current diagnosis (understanding the condition) would assist greatly in the ISBAR.
- Select staff only have access, very embarrassing when doctors ask for access.
- I found it very strange that a "sole RN" in an emergency department with no doctor was denied internet access when ENs in the same department are allowed access.
- CIAP is cumbersome & user unfriendly to use, other than MIMS. I take my iPad to work so I can access the internet for any information I need to source, using my personal plan (money) to do so Absolutely ridiculous that medical staff are allowed access & nursing staff are not.
- Most RN do not have Internet access, not enough available from the LHD.
- Poor search methods by me.
- Not enough computers available compared with staff that are constantly using them for FirstNet processes and digital records/orders to be able to use them for less urgent tasks.
- Management only allow some staff to access the internet.
- Do not have internet access at work.
- Not all staff have access via log on/password for internet use.
- Restricted access requiring high level LHD sign off. Most staff have no internet access.
- Lack of easy access to all widely used resources.
- No access at all due to policy.
- Staff not having access.
- Lack of time given high clinical workload.
- Staff denied internet access.
- unable to use iPad to access intranet or internet at work.
- Office internet access is fine. Only 2 computers with internet access for those on the floor to access.
- As CNE if have internet access. General ED registered nurse do not have internet access other than what's available through the intranet and CIAP.
- Internet is not widely available to all clinicians.
- Many staff members do not have internet access passwords.
- Restricted access to video and sound files. Not enough band width to watch videos related to training. Slow computers related to band width.
- No wireless access for tablets.
- Inability to access Internet on most computers.
- blocking of health or education sites.
- No YouTube connection.
- Have to log in as myself rather than generic log-in, access sites, then log out & log back in with generic.
- This is the work computer I am talking about.
- Up to date has been taken away from Northern Sydney region and replaced by Dynamed, which is a major problem.
- Need to log on as a specified user from common log in computers in clinical areas.
- Much better access in my office than on the shop floor. I generally go into my office to do a search or print out patient information or a guideline.
- Lack of cookies meant that I was unable to participate in some NSW Health surveys and blocks part of HETI educational site - can only access these at home, not work.
- Better wireless would improve my efficiency.
- Some staff blocked according to designation.
- Bad gateway at local hospital.

- frequently wiping collections of videos (library of procedures) from drives.
- No mobile reception in Ed- need to leave outside to access phone Internet.
- needing to leave the department to get to a computer that gives me internet access.
- Generally hopeless at hospital and easy at home or in private practice.
- Log in not enabling internet access.
- Only allowed 1 hour of internet use, which is practically useless as this includes PubMed and CIAP sites. Often have to get colleagues to log in to do further research. All because some people on nights abused the system- all staff are inconvenienced.
- Do not have access to internet.
- The hospital wouldn't provide it to clinicians, only to managers it seems, so we (VMOs and GPs) have installed our own 3G Wi-Fi internet in ED and in the ward which I pay for.
- only available to certain staff.
- I have worked a lot in xxxx, xxxx, xxxxx, xxxxx. The blocked websites is a MASSIVE HINDRANCE, and has the potential to impair patient care as the usual medical websites cannot even be accessed. This needs to be fixed, ASAP please.
- At St Vincents we have no barriers, but outside this health service, it is near impossible to access the internet in the ED.
- No wireless and poor 3G reception for smartphone.
- Have been at the hospital for 2 yrs and have applied for Internet access 3 times with no luck.
- I have no internet password and use someone else's.
- Poor phone reception in ED...never seems to be available when needed most! 2) Extremely difficult to navigate intranet site (SESAHS) - takes 17 clicks to find anything of use.
- Plus password expires all the time so need to keep ringing IT to get a new one.
- Password not easy to obtain, use a colleagues.
- My smartphone doesn't get reception at my workplace I've never had a password that works, I use another colleagues.
- Computer systems crashing.
- I have been given no Internet access password.
- Generally the IT system in NSW health is 10 years behind the times. Particularly due to the very short-sighted practice of blocking highly educational material on the web.
- Bad mobile reception in emergency and outlying areas (CT radiology and theatres).
- Timing out on sites when you are reading or called away from the computer. Lack of time given to access information without being called away or distracted by others.
- No internet access through work computers need to use my own smart phone with 3g to access internet at work.
- No internet available to nurses.
- Why can't we listen to YouTube (for e.g. - respiratory sounds???).
- Only having restricted/limited access to internet (e.g. having 1 hour within a 24hr period).
- Internet log on not provided for all staff.
- Not allowed.
- No access/password.
- My user access does not allow me to log onto the internet. Only doctors are able to, however I feel it would also be beneficial for nurses to be able to do the same for research purposes.
- I have not tried to access the internet at work.
- Staff not granted access to internet at all for ED purposes - I just happen to have it for work as Infection Prevention & Control CNS. YouTube is blocked to everyone in HNE, even those with internet access.
- No available Internet access.
- As nurses, we are not given passwords to access the internet which can be very frustrating when attempting to find best-practice ideas or other information needed quickly.

- No access granted to RN's - finding this very frustrating, devalues our profession, and ultimately affects patient care as we cannot access resources easily if at all.
- Blocked for nursing staff and only available to medical staff with a password.
- Only one computer to access internet.
- Not available to all staff.
- Not allowed internet access therefore no password to access.
- None provided by hospital.
- Don't have access.
- Time during shift.
- Old and out-dated computers and software, firewall restrictions, lack of computers and lack of protected time for learning.
- Being told not to have smart phones at work but also no internet access on computers to nothing available.
- Not being granted access to the internet due to budget cutbacks or so I was told (I had never had internet access but found myself using my galaxy tab more and more at work to check treatments and symptoms and so I requested work access but was denied.
- Nursing staff do not have internet access. Medical staff do.

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