Knowledge and use of electronic information resources by medical sciences faculty at The University of the West Indies

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Objective: The objective was to determine faculty's knowledge of electronic resources, access to a computer, use of electronic resources (both number and frequency) available at the Medical Sciences Library (MSL), and the areas of training needed and to identify areas for further research.

Methods: A survey was administered to faculty in medicine, pharmacy, dentistry, and veterinary sciences at The University of the West Indies. The questions covered computer literacy, computer access and location, knowledge and use of electronic resources, and training needs.

Results: The response rate was 70%, of whom 97% were computer users. Seventy-three percent used computers daily, and 82% felt that their computer literacy level was average or beyond. Overall, it was found that faculty had high awareness of the electronic resources made available by the MSL but low use of MSL-specific resources supporting the suggested problem of underutilization. Many respondents felt that e-resources were important, and, though many felt that they were competent users, 83% were self-taught and many still expressed a need for training. Over 60% felt that a workshop with a hands-on component was the preferred format for training. It was recommended that there be greater promotion of the library's e-resources.

INTRODUCTION

Today's users have their information needs met via a number of options. They need not come physically to the library to use print formats but can stay at home or the office and access online library resources and services via networks or authentication methods at any time.

Medical information should be accessible, authoritative, reliable, accurate, and timely. Due to the needs of medical professionals for high-quality information, medical libraries have been early adopters of electronic resources to provide information and services.

Electronic resources have exploded in popularity and use. They can and do enable innovation in teaching, and they increase timeliness in research as well as increase discovery and creation of new fields of inquiry [1]. Other reasons for medical faculty to use e-resources include relating to increasingly computer-literate students and keeping up to date in their fields. The latter is essential for those with clinical practice as more of their clients use e-resources to keep informed about health information.

Users often prefer increased access to databases of online-refereed journals and to the Web—which provides information that is up to the minute, international in scope, and sometimes not available elsewhere [2]—because they see these resources as easier to access and search. Availability of e-resources has changed what users actually read and use. They now tend to use only what is easily accessible. Therefore, they visit the library a lot less, and, as such, discovery through serendipity is reduced. Access to e-resources has decreased the time spent searching for information.

Access is only as good as the resources that can be afforded (e.g., the number of computers and existence of network systems), the ability to work with the tools, and the network infrastructure that supports rapid and convenient connections [3]. The ability to use e-

resources efficiently depends on basic computer skills, knowledge of what is available and how to use it, and ability to define a research problem.

Faculty, due to the nature of their work—teaching, research, and, in some cases, clinical practice—should have ready access to medical information. By their teaching styles and course requirements, they affect the use of the library's collection and students' perception of the library. Computer-literate faculty may feel more comfortable using electronic information sources and thus gain more from using them [4].

How faculty attain the above skills and knowledge depends on many factors, such as their disciplines, academic status and ranks, ages, access (hardware and location) to electronic resources, and training. Factors motivating use can be, for example, what level of importance they allocate to e-resources, how useful they have found them, and for which purposes they use e-resources.

The library plays a leading role in faculty-library relationships and in instructional services such as orientation and training in use of library resources. If efficient and effective use is to be made of library's e-resources, then user training will have to increase in both intensity and coverage. It is important to remember that the ability of library staff to keep up to date is necessary, and, therefore, training for them is crucial as well.

NATURE OF THE PROBLEM

The Medical Sciences Library (MSL), The University of the West Indies (UWI), St Augustine, Trinidad and Tobago, has made significant investments in e-resources and accompanying computer-based technology to ensure access to e-resources. However, the resources appeared to be underutilized by the Faculty of Medical Sciences (FMS). This study investigated FMS knowledge and use of electronic resources provided by the MSL and the need for training in use of these resources.

The objectives of the study were to determine faculty's knowledge of e-resources; faculty's access to computers and use of e-resources, both number and frequency; and the areas of training needed by faculty to utilize e-resources efficiently and effectively and to recommend how the library could fulfill identified training needs and what strategies the library could use to improve service as well as what areas the library could research further.

There is a dearth of information about e-resources in the Caribbean. It is hoped that this research adds to the body of literature about use of e-resources pertaining to the Caribbean, as well as encourages further studies of this nature for different user groups. This survey serves to benchmark use of e-resources in Trinidad and Tobago.

BACKGROUND

Faculty of Medical Sciences, The University of the West Indies

UWI is an autonomous regional institution supported by and serving 15 different territories in the West Indies. There are 3 campuses: Mona in Jamaica, Cave Hill in Barbados, and St. Augustine in the Republic of Trinidad and Tobago. The total student body, over 16,000, is distributed amongst the faculties of agriculture, arts and humanities, education, engineering, law, medical sciences, natural sciences, and social sciences.

FMS at St. Augustine comprises the schools of medicine, dentistry, and veterinary medicine and the pharmacy program. Postgraduate training in all disciplines in basic and clinical medical sciences as well as veterinary sciences is offered. The 953 undergraduate and 40 postgraduate students come from all territories in the Caribbean and various international countries.

The educational methodology is problem-based learning (PBL). The first three years are devoted to study of the basic health sciences and the fourth and fifth years are considered clinical years. There is a Centre for Medical Sciences Education (CMSE) that supports tuition in the program by monitoring the curriculum and the teaching methodology.

The faculty does not have a local area network (LAN) in place. The schools have obtained individual access to the Internet, and not all staff have such access in their offices.

The Medical Sciences Library

MSL was opened in October 1989, at the same time as the FMS. It is part of the campus library system of UWI and facilitates access to traditional print formats as well as electronic information resources. The library plays a crucial role in ensuring that these resources are effectively and efficiently used especially as a professional librarian might not actually be present at the time of use.

MSL has a total floor area of 3,000 square meters (located on 1 level) with 366 seats and 24 carrels and is fully air-conditioned. Special facilities include 3 seminar rooms and an audiovisual group-viewing room, each with seating for 25 persons, as well as a training room equipped to facilitate the library's Information Literacy Program, and a volume storage capacity of 120,000 items. Equipment available at the library includes photocopiers, overhead projectors, videocassette recorders, a slide projector, screens, a microscope, an X-ray reader, printers, a scanner, and a multimedia projector.

The collection comprises 25,190 books (900 in the reserve collection and 550 in the reference collection), 509 current periodical subscriptions, 5,100 bound serial volumes, 4 newspaper subscriptions, and 1,137 multimedia items (667 videotapes, 73 audio tapes, and 119 CD-ROMs including computer-aided instruction and interactive software, 204 slide tapes, 63 slide shows, and 11 diskettes). The collection has 11 CD-ROM databases, including MEDLINE and International Pharmaceutical Abstracts. The US National Library of Medicine classification system is used. The subject areas covered are dentistry, medicine, pharmacy, and veterinary science as well as education, nursing, and counseling.

The library has thirty-seven staff members. Services

offered by MSL include: loans (general, short-term reserve, and interlibrary) of both print and nonprint library materials; reference inquiry (face-to-face, telephone, and electronic); reprography (photocopying, transparencies, and computer printing); computer access (Internet, office applications, and database searches); and user education. The library uses document delivery services from the British Library. Promotional activities include informational and new book displays. Cards for printing and photocopying as well as diskettes are sold.

The provided services have always had a training component because of the PBL method of curriculum delivery. The library had a strong training program in 1995 to 1997, when users needed to be introduced to computers and to basic applications like MS Office. Newer users who were increasingly computer literate decreased the need for such a basic program. Little formal training by the library has targeted faculty directly, and, within the last three years, no faculty training has been done. Informal observation notes that the library appears to be underutilized by faculty.

The library was automated from the onset and, as such, has never had a card catalog. A LAN was implemented in the year 2000, and online resources have been acquired. The online public access catalog (OPAC) is available via the LAN (intranet). Fourteen networked computers, which provide access to the Internet, are available to users, and another fifteen standalone units provide access to MS Office applications, CD-ROM databases, and the multimedia collection. Not all library procedures have been automated, but computers are used for accessing the library's holdings, searching biomedical computerized databases, and accessing the Internet and as teaching resources (e.g., computer-aided instruction and interactive software).

At present, the campus library system subscribes to a number of fee-based online bibliographic databases, such as OCLC FirstSearch, EBSCOHOST, Proquest, WESTLAW, Emerald Library, and ILODOC. Through the EBSCO Electronic Journal Service (EJS), access to 165 electronic journals is provided. A subscription to the MD Consult clinical information service (CIS) has been purchased together with the Medical Library at Mona Campus. MSL is a participating member of MedCarib, a database of health sciences literature of the English-speaking Caribbean, which is freely available on the Internet. It is one of the databases organized by Biblioteca Regional de Medicina (BIREME), the Latin American and Caribbean Health Sciences Centre. Other databases can only be accessed via the library's network in the library itself. The library's Website provides easy access to the subscribed bibliographic databases, selected health resources, past examination papers, and information about the library's services and resources.

METHODOLOGY

The survey was conducted using a mail questionnaire (Appendix). A pretest was done to streamline the questionnaire. A cover letter and a self-addressed envelope for returning the completed questionnaire were distributed as well. The questionnaire comprised twenty-nine questions in four sections: (1) demographic information; (2) computer literacy, location, and access; (3) knowledge and use of electronic resources; and (4) training.

The nine questions on demographics sought to create a profile of the participants and to identify factors that may affect use of e-resources. The second section contained seven questions on computer use: level of computer literacy, location, access to the Internet, frequency of use, and time spent on the computer. The seven questions in the third section examined the participants' knowledge and use of electronic resources and perception of their competence in using the resources. The last section had six questions, which were to determine what training participants have had as well as their training needs.

To facilitate quantification and analysis, mainly close-ended questions were used along with checklists and rating scales. To capture a response and have fewer missing responses, responses such as ''no opinion,'' ''don't know,'' and ''don't know about it'' were included.

The population surveyed was FMS academic staff with a teaching and/or research portfolio. Full-time lecturers have both, and part-time lecturers mainly teach. In 2002/03, there were 126 full-time and 38 part-time lecturers. With the population being a small one, 164 persons, it was decided to survey the entire set rather than select a sample. The study was limited to faculty with responsibility for teaching and research in the FMS and to the use of electronic resources made available by MSL.

DISCUSSION OF FINDINGS

As 11 persons were unavailable to be surveyed, the final surveyed population numbered 153 basic health sciences and clinical faculty from the 3 schools, dentistry, medicine, and veterinary science; the pharmacy program, and CMSE. The response rate was 70%; 107 responses were received. The responses from the various school and departments ranged from 68% to 80%, reflecting a relatively balanced representation from each (Table 1).

Profile of respondents

Overall, respondents were evenly represented among the four disciplines and the CMSE, with a 17:3 ratio of full-time to part-time lecturers. The response by full-time lecturers (78%) was almost twice that of part-time ones (44%). Respondents were all involved in teaching, 91% in research, and 65% in clinical practice. The faculty could be considered a mature one, with 46% over 50 years old. The ratio was 3 males to 1 female.

The majority (81%) of respondents had graduated before 1990; 42% were fairly new to the FMS; and 88% had been educated internationally. These statistics

Table 1
Respondents by academic status and school or department (n = 107)

Academic status	Dental	Medicine	Pharmacy	Veterinary medicine	Centre for Medical Sciences Education (CMSE)	Total
Full-time (FT) lecturers	16	69	5	23	4	117
FT responses	14	50	5	19	3	91
% FT responses	88.0	73.0	100.0	83.0	75.0	78.0
% FT total	13.0	47.0	5.0	18.0	3.0	85.0
Part-time (PT) lecturers	13	8	9	5	1	36
PT responses	6	4	5	0	1	16
% PT responses	46.2	50.0	55.5	—	100.0	44.4
% PT total	6.0	4.0	5.0	—	1.0	15.0
% within discipline	69.0	70.0	71.0	68.0	80.0	70.0
Overall total %	19.0	50.0	9.0	18.0	4.0	100.0

showed that the majority had graduated before computers had become part of the popular landscape and most probably had not been exposed to formal computer training. However, they have brought to the faculty educational experiences that would have been obtained elsewhere and, of course, exposure to how other institutions and countries treated e-resources.

Computer literacy, location, and access to computers

As 97% of respondents used computers, use could be considered universal. This universal use meant that it was not possible to measure the effect of the factors (discipline; academic status and rank; age; gender; length of service at the FMS; length of time since graduation; place of study; access to, hardware, and location of e-resources; faculty's perception of their ability to use e-resources; and previous training) on use of either computers or e-resources. No consistency in comments was given for non-use. The majority (84%) of lecturers felt that they were average or beyond in their own levels of computer literacy.

Unlike Adams and Bonk, where more persons accessed a computer and had an Internet connection at the office than at home [5], the majority (91%) at FMS depended on access to a computer at home, where 79% had an Internet connection, rather than at the office, where 80% had access to a computer and only 50% had an Internet connection (Table 2). Use of MSL's computers was quite low, only 21%, though the library's computers were connected to the Internet. Very few lecturers (7%) looked elsewhere for access.

Table 2
Location of Internet access (n = 107)

Location of access	No. of persons who use computers at this location	No. of computers with Internet access	% Internet access at location	Total % with Internet access
Home	98	84	86	79
Office	90	53	59	50
Medical Sciences Library (MSL)	23	23	100	22
Elsewhere	7	5	71	5

The majority of respondents used a computer quite frequently, with 90% using a computer daily or at least every other day. Per-session use was also high on average, with 61% using the computer for 1 to 2 hours per session and 23% using it for 3 hours or more. Despite this high usage, 43% of respondents also delegated computer-based research to someone else. It can be noted that the youngest group of respondents, who were all assistant lecturers and the most recent graduates, rated themselves with the highest level of computer literacy, had the highest level of computer use, and all had computers at home with Internet access.

Knowledge and use of electronic resources

It was realized that faculty were quite knowledgeable about the e-resources available at MSL in general, averaging 80%. However, they were not as well informed about MSL-specific resources or those which the MSL had responsibility to promote: the catalog (56%), the Website (51%), and the CIS (36%). This lack of awareness could be because awareness of the general resources results from Internet access being expected to be available at the library from a theoretical point of view.

With regard to reasons for using electronic resources, the highest use was for communication (86%). Other main uses were for both professional (79%) and personal (77%) research. Supporting teaching activities (74%) and administrative purposes (41%) were next, and the reason given the least often was recreation (38%). There was low incidence (13%) of persons using e-resources for all six activities.

Those resources that were available on the Internet were used more by respondents: Internet/Web (79%), email (67%), search engines (59%), online databases (67%), PubMed (65%), and online journals (45%). This finding concurs with Jirojwong and Wallin, who stated that those who were more computer literate tended to use the Internet as the e-resource of choice [6]. Eleven percent of respondents used email discussion lists or groups, and 22% used CIS.

The low usage of the last 2 might reflect lower need for these resources. Despite the fact that over 80% of respondents used e-resources for communication, email was apparently the tool of choice, because email

Table 3
Electronic resources used in the last year in percentages (n = 107)

Resource	Use	Don't use	Don't know it	No response
MSL catalog	27	33	31	9
CD-ROM databases	37	30	8	25
■ MEDLINE	50	17	6	28
Internet/Web	79	10	5	6
■ Email	67	16	4	13
■ Email discussion lists/groups	11	28	15	46
■ Search engines	59	15	6	21
■ Online databases	67	13	7	13
– PubMed	65	12	8	15
– MedCarib	25	24	16	35
■ Online journals	45	22	8	25
– EBSCO Journal Service	16	24	24	36
■ Clinical information service	22	27	20	31
– MD Consult	19	31	19	31
■ MSL Website	17	36	20	27

discussion lists and groups did not enjoy a high level of usage. One reason for low usage of email discussion lists could be that no well-known email discussion lists for Caribbean health professionals exist and the generally available ones did not treat content relevant to the lecturers.

In the case of the CIS, Leckie, Pettigrew, and Sylvain suggested work roles and information needs affected information-seeking behavior [7], and, only those faculty who taught in the clinical information sciences in medicine would need the CIS. This condition would account for the low percentage of the total respondents using CIS.

Use of individual resources varied with the MSL-specific ones being especially low: MSL catalog (27%), CD-ROM databases (37%), and those resources that MSL provided information on or access to: MedCarib (25%), EJS (16%), MD Consult (19%), and MSL Website (17%) (Table 3). These levels of use were lower than those of Vander Meer, Poole, and Van Valey, who reported that approximately 60% of faculty used online catalogs and electronic databases and 45% used CD-ROM databases [8], and than Adams and Bonk, who found 90% used the OPAC and 70% used electronic databases [5]. As expected, use of MEDLINE on CD-ROM was relatively high (50%), as this was a well-known e-resource.

In this question, the high levels of ''don't know it'' might indicate a lack of knowledge of specific items as the earlier check on knowledge of general groupings of e-resources revealed a high level of awareness of MSL-specific resources generally. It must be noted that this question had a high number of non-responses, which could be interpreted as not knowing what the item was and reluctance to indicate it or, as there was a noncommitted group of respondents, they were too busy to answer in the required detail.

Use of the Web and email had the highest daily use, 51% each. This finding was similar to that of Belefant-Miller and King, who noted the relatively high use of email by science faculty [9]. Search engines for finding information on the Internet were next most frequently used, and the MSL-specific resources were the least frequently used. MSL-specific resources also had high levels of never having been used.

Table 4
Areas of training by percentages (n = 107)

Topic	Essential	Useful	Not useful	No opinion	No response
Using computers	36	34	16	6	8
Searching MSL catalog	26	52	7	8	7
Using CD-ROM databases	29	51	12	5	3
Finding information on the Internet	32	42	12	8	6
Evaluating electronic information	36	41	11	7	5
Using online databases	34	50	7	5	6
Using online journals	38	50	6	5	2
Using clinical information services	32	45	8	9	7

E-resources were used to support faculty's research (83%), teaching (65%), and, to a lesser extent, clinical practice (37%). In teaching, use was high in terms of recommending e-resources (73%), which differed from Applebee, Clayton, and Pascoe, who found that e-resources were little used for teaching [10]. To a lesser extent, respondents expected students to use e-resources in presentations (44%) and communicated with students via email (36%). However, few recommended the MSL-specific e-resources (33%). The fact that e-resources were used heavily for communication and for research might support the findings of Jirojwong and Wallin that science and medical faculty used personal communication for locating information [6]. Regarding usefulness of e-resources, 82% agreed and 92% felt that e-resources were important to their work.

Training

The majority (83%) of faculty were self-taught, in agreement with Salmon's findings [11]. Learning from family or friends was the next most-used method (55%). These two methods could result in a limited range of learning, as they related only to one's area of experience.

In terms of competence, use of email and Web were highest, other Internet resources lower, and MSL-specific resources the lowest. The findings on email and Web also corresponded with that of Salmon [11] (Table 4).

Generally, levels of perception of the usefulness of all types of suggested training were very high. This finding correlated with research by Majid and Abazova, where many (91%) of the respondents felt that they needed training in using e-resources [4]. Even those who rated their competence as above average or expert felt training would be useful. The preferred formats for training sessions were workshop or hands-on (63%), one-on-one demonstrations (45%), and support when needed (32%) (Table 5).

CONCLUSIONS AND RECOMMENDATIONS

That 97% of respondents used e-resources could imply that those who did not respond to the questionnaire were nonusers of e-resources. This possibility could re-

Table 5
Preferred format for training by percentages (n = 107)

Mode of training	Percentages
Workshop/hands-on	63
Presentation at a meeting	5
Online tutorial	24
Self-help guides/handouts	27
One-on-one demonstrations	45
Lists of resources	23
Support when needed	32
No preference	7

sult in some nonuser bias being introduced. For those who used electronic resources, the answers to this survey would have been relatively easy to furnish, but they might have been daunting for those who did not. This finding was supported by research undertaken by Nicholas [12] and Vander Meer, Poole, and Van Valey [8], who pointed out that use studies tend to say little of nonusers of resources. Ocholla recommended marketing e-resources and communicating with nonusers, for example, offering liaison programs, improving communication, and providing user education in different formats [13].

This study makes five major recommendations for library planning and training that are similar to Adams and Bonk's mandates for their libraries [5]. The study confirmed to some extent the lack of knowledge and use of MSL-specific resources and supported the suggested problem that its e-resources are underused. To counteract this situation, greater promotion of resources should be done. Nicholas wrote that ''you can only use what you know about and what you are experienced or trained in using'' [12], and Roberts concluded that the burden of responsibility for informing faculty about information resources fell on the library [14]. Thus, informing faculty of what is possible, what is available, and how resources are used is imperative.

Some initial target groups could be the lecturers in the school of dentistry and the part-time lecturers, as they revealed the lowest awareness of information about the library. Training for library staff is imperative, because this training is a source by which faculty can become aware of the resources of the library and ways to use them. This study itself could be considered a move in this direction, because, by the nature of its content, it served to inform faculty of the resources available at the library. This position is supported by Weingart and Anderson, who found that their survey did the same [15].

The second recommendation focuses on user training. Noting the limitations of the methods by which faculty have learned about e-resources, mainly self-taught and from family or friends, means that comprehensive training is needed. Faculty participating in this study, including those who considered themselves as expert or above average in terms of use, stated a clear desire for training. The survey provided concrete information on exactly what was used, what training was wanted, and in what format it should be. They felt that workshops with a hands-on component, one-on-one demonstrations, and support when needed were the preferred formats.

The third recommendation refers to faculty's readiness to access and use e-resources. If Metha and Young suggested that a low response rate might reflect apathy to using the resources [16], then the relatively high response rate and levels of computer use in this survey could imply that faculty were ready, in terms of interest, to access e-resources. This readiness was also reflected in the high percentages who felt that e-resources were useful, felt that they were important to their work, and used them to support their teaching, research, and clinical practice activities. A significant number expected students to use e-resources in their presentations and recommended them to students. These results implied that the library should continue to acquire and provide network access to e-resources.

The fourth recommendation relates to faculty's use of e-resources for communication, especially email and its use in communication with students. Email may be an appropriate medium with which to communicate with faculty.

The fifth recommendation refers to the response indicating that many of the faculty are innovative and willing to be part of the information revolution. The level of computer access and Internet connections at the office revealed a need for improvement with regard to connecting to a campus network. Internet use is maximized by availability of networked workstations, and the results of a survey such as this should be used to lobby for universal access for faculty. The library has a responsibility to support such calls, because universal access is imperative for the library to maximize the use of the resources it provides.

There is scope for further investigation on information-seeking behavior of faculty, especially comparative studies of the disciplines. Using direct observation to characterize the information sources used by faculty may be possible. Other research questions to guide the content of further training are: To what extent does faculty depend on the library for research? What is the level of satisfaction with the present level of resources and services? What are the actual competence levels in use of e-resources? What is the effect of e-resources on collaboration and scholarly communication? How do faculty keep up to date with the available resources? Qualitative research would be useful to determine if nonusers are just late in starting to use e-resources or as Starkweather and Wallin suggested, ''are they disenchanted with all computer-based technologies'' [17], as well as to investigate the impact of culture on the use of e-resources.

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APPENDIX

Faculty of Medical Sciences knowledge and use of electronic resources at The University of West Indies, St. Augustine: a survey

This survey is being conducted to identify faculty knowledge and use of electronic resources. Please assist in identifying faculty training needs. Please take a few minutes to complete the survey and return it in the enclosed addressed envelope by October 31, 2002.

''Electronic resources'' refers to information resources in a digital format that are located in-house (diskettes, CD-ROMs, DVDs, online public access catalog [OPAC], bibliographic or full-text databases) as well as those resources accessible via the Internet.

Section 1: Demographic information

Please check the appropriate answer.

1. In which school or department do you work?

_____ Dentistry
_____ Medicine
_____ Pharmacy
_____ Veterinary
_____ Centre for Medical Sciences Education (CMSE)

2. As a lecturer, what status are you?

_____ Full-time
_____ Part-time

3. If full-time, please indicate your rank:

_____ Assistant lecturer
_____ Lecturer
_____ Senior lecturer
_____ Professor

4. What activities do you undertake? (Check all that apply.)

_____ Teaching
_____ Research
_____ Clinical practice

APPENDIX

Continued

5. Age:
_____ 20–35 years
_____ 36–50 years
_____ >50 years

6. Gender:
_____ Male
_____ Female

7. Year graduated:
_____ 1990 and after
_____ 1980–1989
_____ Before 1980

8. Length of time at Faculty of Medical Sciences, The University of West Indies, St. Augustine?
_____ 0–5 years
_____ 6–10 years
_____ >10 years

9. Place of study: (Check all that apply.)
_____ Local
_____ Caribbean
_____ International

Section 2: Computer literacy, access, and location

10. What is your level of computer literacy?
_____ Expert
_____ Above average
_____ Average
_____ Below average
_____ Beginner
_____ None

11. Do you use a computer?
_____ Yes
_____ No
(If you do not use a computer, go to question 15.)

12. If yes, please tick location where you use the computer and indicate if that computer has Internet access. (Check all that apply.)

	Location of use	Internet Access
Home	_____	_____
Office	_____	_____
Medical Sciences Library (MSL)	_____	_____
Elsewhere (e.g., Internet café, friend)	_____	_____

13. How frequently do you use a computer, on average?
_____ At least daily
_____ 2–3 times a week
_____ Once a week or less
_____ 2–3 times a month
_____ Once a month or less

14. How much time do you spend on average per session?
_____ >3 hours
_____ 3 hours
_____ 2 hours
_____ 1 hour
_____ <1 hour

APPENDIX

Continued

15. If you *do not* use a computer, please indicate which of the following reasons are applicable: (Check all that apply.)

_____ No computer access
_____ No Internet access
_____ No email address
_____ No training
_____ No interest
_____ No need
_____ No time
_____ High cost
Other _____

16. Do you delegate research using electronic resources to someone else (e.g., secretary, research assistant, family member)?

_____ Yes
_____ No

Section 3: Knowledge and use of electronic resources

17. Are you aware that the following electronic resources are available at the MSL?

	Yes	No
MSL catalog (OPAC)	_____	_____
CD-ROMs	_____	_____
Internet	_____	_____
Online databases	_____	_____
Online journals	_____	_____
Clinical information service	_____	_____
MSL Website	_____	_____

18. Why do you use electronic resources? (Check all that apply.)

_____ Communication
_____ Recreation
_____ Professional research activities
_____ Support teaching activities
_____ Personal research
_____ Administration
Other reason _____

19. Which electronic resources or services have you used in the last year? (Some specific resources have been indicated.)

Resource	Use	Don't use	Don't know about it
MSL catalog	_____	_____	_____
CD-ROM databases	_____	_____	_____
■ MEDLINE	_____	_____	_____
Internet/Web	_____	_____	_____
■ Email	_____	_____	_____
■ Email discussion list or groups	_____	_____	_____
■ Search engines	_____	_____	_____
■ Online databases	_____	_____	_____
– PubMed	_____	_____	_____
– MedCarib	_____	_____	_____
■ Online journals	_____	_____	_____
– EBSCO Journal Service	_____	_____	_____
■ Clinical information services	_____	_____	_____
– MD Consult	_____	_____	_____
■ MSL Website	_____	_____	_____

Other electronic resource or service: _____

APPENDIX

Continued

20. How often have you used the following electronic resources?

	Daily	At least 2–3 times a week	2–4 times a month	Rarely	Never
CD-ROM databases	____	____	____	____	____
MSL catalog	____	____	____	____	____
Internet/Web	____	____	____	____	____
Email	____	____	____	____	____
Search engines	____	____	____	____	____
Online databases	____	____	____	____	____
Online journals	____	____	____	____	____
Clinical information services	____	____	____	____	____
MSL Website	____	____	____	____	____

21. In the last year, have you

	Yes	No
a. Used electronic formats (computers, Internet, CD-ROMs) in teaching	____	____
b. Used electronic resources for your research	____	____
c. Used electronic resources in your clinical practice	____	____
d. Expected students to present information in electronic formats	____	____
e. Used email or groups to communicate with students	____	____
f. Recommended online resources to students	____	____
g. Recommended MSL electronic resources to students	____	____

22. Have you found the information located in electronic resources useful?

____ Yes
____ No
____ Don't know

23. How do you rate the importance of the electronic resources to your work?

High importance	Somewhat important	Little importance	No importance	Don't know
5	4	3	2	1	0

Section 4: Training

24. How did you learn to use electronic resources? (Check all that apply.)

____ Self-study (reading books/articles, tutorials, etc.)
____ Family, friend, or colleague
____ Formal course (paid, official training)
____ Library training
____ Do not use
Other: _____

25. If you use electronic resources, how do you rate your competence in use of the following?

	Expert			Beginner		Unable to use
	5	4	3	2	1	0
CD-ROM databases	____	____	____	____	____	____
MSL catalog	____	____	____	____	____	____
Internet/Web	____	____	____	____	____	____
Email	____	____	____	____	____	____
Search engines	____	____	____	____	____	____
Online databases	____	____	____	____	____	____
Online journals	____	____	____	____	____	____

APPENDIX

Continued

26. How useful would you find training in each of the following?

	Essential	Useful	Not useful	No opinion
Using computers	_____	_____	_____	_____
Searching MSL catalog	_____	_____	_____	_____
Using CD-ROM databases	_____	_____	_____	_____
Finding information on the Internet	_____	_____	_____	_____
Evaluating information on the Internet	_____	_____	_____	_____
Using online databases	_____	_____	_____	_____
Using online journals	_____	_____	_____	_____
Using clinical information services	_____	_____	_____	_____

27. Do you have a preference for mode of training?

_____ Workshop or hands-on
_____ Presentation at a meeting (e.g., faculty/board/departmental meeting)
_____ Online tutorial
_____ Self-help guides/handouts
_____ One-on-one demonstration
_____ Lists of Web or multimedia resources in your area of interest
_____ Support when needed (via email, telephone, informal one-on-one)
_____ No preference

28. Do you have suggestions for additional areas or modes of training not mentioned above?

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29. Do you have additional comments or recommendations?

Thank you very much for your assistance! Please return the survey in the enclosed addressed envelope as soon as possible. If you have questions or need clarification about the survey, please contact Shamin Renwick at 645.868.2640 x5253 or send email to srenwick@fms.uwi.tt.