



USAID | DELIVER PROJECT
FROM THE AMERICAN PEOPLE

Pakistan: Supply Chain Management Courses

Offered by the Health Services Academy, in Collaboration with the USAID | DELIVER PROJECT

Impact Assessment Report

FEBRUARY 2015

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Abstract

A primary goal of the USAID | DELIVER PROJECT in Pakistan is to develop the capacity of the Health Services Academy (HSA) to offer courses in supply chain management (SCM). By offering these courses, Pakistan's HSA can provide better healthcare for millions of Pakistanis.

The project assessed the previously conducted courses to determine their impact, possible replication elsewhere in Pakistan, and HSA's ability to provide technical support to other institutions for SCM courses.

After training, students reported they could explain logistics concepts and conduct logistics tasks significantly better. Faculty and management now see the great importance that logistics plays in a public health system. Students speak clearly that the courses' most relevant topics are also what they want to learn more about; i.e., monitoring and evaluation, logistics management information system, and procurement.

USAID | DELIVER PROJECT

John Snow, Inc.
1616 Fort Myer Drive, 16th Floor
Arlington, VA 22209 USA
Phone: 703-528-7474
Fax: 703-528-7480
Email: askdeliver@jsi.com
Internet: deliver.jsi.com

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Acronyms

EMSPH	Master of Science in Public Health Extended Program
HSA	Health Services Academy
JSI	John Snow, Inc.
LMIS	logistics management information system
MOU	memorandum of understanding
MSPH	Master of Science in Public Health
SCM	supply chain management
TDY	temporary duty
USAID	U.S. Agency for International Development

I. Executive Summary

A major goal of the USAID | DELIVER PROJECT in Pakistan is to develop the capacity of the Health Services Academy (HSA) to offer the three-credit and certificate courses in supply chain management (SCM). These courses will help develop the important human resources needed to run health commodity supply chains and sustain SCM capacity within Pakistan's own public health institutions. By offering these courses, Pakistan's HSA is playing a pivotal role in improving access to health supplies and, thus, helping provide better healthcare for millions of Pakistanis.

The USAID | DELIVER PROJECT has carried out an assessment of the previously conducted courses to determine their impact, possible replication in other public sector institutions of Pakistan, and HSA's capacity for the provision of technical support to other institutions for the SCM courses.

Approximately 60 students were trained during the three courses offered at HSA (two Certificate courses and one Three Credit course). Of these 60 students, 38 responded to the survey. Students reported that they could explain logistics concepts and conduct logistics tasks significantly better after taking the course (90 percent¹ and 94 percent², respectively). Students who were already working in the public health supply chain universally reported that the course helped them prevent stockouts; and all students (non-working, as well) believed that the courses should be offered in other provinces and through more institutions. As a result of the courses, faculty and management now see the great importance that logistics plays in a public health system. However, they are mixed in their views on the courses' long-term sustainability at HSA. Students speak clearly that the courses' most relevant topics are also what they want to learn more about; i.e., monitoring and evaluation, logistics management information system (LMIS), and procurement. Finally, participants liked the courses and are sharing what they learned with others (see questions 33 and 29).

¹ Scores were totaled and averaged from the *comfortable* and *very comfortable* responses for each of the eight activities presented in question 10. *How comfortable were you defining each of the following terms after taking the course?*

² From question 24: *the course was helpful to better perform my job functions* by tallying the *agree* and *strongly agree* responses

2. Introduction

Pakistan's public health system requires more professionals trained in supply chain management; properly functioning logistics systems depend on health personnel trained in logistics to successfully manage essential logistics activities. The lack of health personnel trained in logistics creates gaps in capacity throughout the system. With regular turnover in the health sector, reaching all untrained in-service personnel with supply chain training is difficult and costly.

The pre-service approach proposes to prepare new public health professionals (pharmacists, pharmacy technicians, nurses, and other personnel that manage essential health commodities) to receive training before they enter the workforce. Pre-service should have a sustainable, longer-term impact than the periodic in-service efforts because, over time, the knowledge of how to run a system, and the training itself, will come from within the country. Because future training will be conducted internally, training logisticians will become less of a financial burden for the country over time. If training could be established at local universities and medical education institutions like HSA, then graduates in the health disciplines could enter the workforce with the basic knowledge of how to run a public health supply chain.

In 2012 and 2013, the USAID | DELIVER PROJECT, in conjunction with John Snow, Inc. (JSI), worked with the leadership of the HSA to establish two courses for teaching public health SCM. One offering was a pre-service course for students with little to no professional public health experience. The second in-service course focused on the needs of current public health professionals. These courses were named the Three Credit course (for students) and the Certificate course (for professionals). These public health supply chain courses are the first of their kind in Pakistan, and HSA continues to be the only institution in the country to offer them.

Technical advisors from USAID | DELIVER PROJECT and PATH visited Pakistan to organize the courses with the Pakistan field office and the HSA leadership. During initial meetings, it was agreed that the HSA would expand its curriculum to offer two different supply chain management courses. Subsequent meetings worked out the credit structure, resources that each party would bring, course timings, and content of the courses. The course designers went to great lengths to develop content that would both meet the needs of the different student populations and improve the Pakistan public health supply chain.

Over the course of several temporary duty (TDY) visits, HSA faculty received training in how to conduct the two courses. After training, HSA faculty presented the in-service course.

Teaching Methods: Course enrollment was limited to optimize learning for each student. The first two courses averaged 18.5 students in each. The first two courses also had six instructors each (two USAID | DELIVER PROJECT, one PATH, and three HSA staff); the third had two instructors. The teaching methodology included short lectures, demonstrations, small group work, individual readings and exercises, and full group discussions. Lecturers received an orientation at the beginning of each of the first two courses. Each orientation was two to three days in length.

The USAID | DELIVER PROJECT and HSA are now eager to assess the courses conducted and efforts to increase HSA's capacity in supply chain management and determine what can be learned from it.

The purpose of the assessment was to—

- Evaluate the probability of long-term sustainability of SCM courses at HSA; to assess the probability of SCM courses being offered by HSA on a regular basis.
- Assess the ability to assume the lead role in implementing SCM courses in different provinces and in other public-sector institutions.
- Evaluate the faculty's experiences and view on presenting SCM courses.
- Assess the course participants' views on how much the SCM courses contributed to an increase in their knowledge of how to perform their professional responsibilities.
- Assessment of beneficiaries' view of implementing SCM courses in other public-sector institutions.

3. Assessment Methodology

A rapid assessment was conducted of the SCM courses presented by HSA by collecting quantitative and qualitative data. The methodology section was designed to keep the objectives of the assessment in mind. The methodology is provided below.

3.1 Target Population

The interviewees or respondents included HSA senior management, trained faculty who conducted the courses and the participants or students who attended the SCM courses at HSA.

3.2 Sampling

Due to the small size of the target population and the nature of this assessment, no sampling technique was applied. Interviews were conducted with everyone who was available and the accessible members of the three target population groups.

3.3 Assessment Tools

Because of the types of interviews and interviewees, two types of questionnaires were used. For HSA senior management and trained faculty, semi-structured interviews and questionnaires were used. Course participants took an online survey.

The faculty and management questionnaires focused on issues related to the continuation of the SCM courses, what obstacles HSA may be facing, and how to make the courses sustainable. More complex and detailed questions were asked toward the end, after the interviewer had the opportunity to build rapport with the respondent.

Course participants received an introductory phone call to determine their interest in taking the survey. Those who responded positively were sent a link to an assessment on Survey Monkey. Follow-up calls were made to get maximum respondents and to answer any questions, as needed. The surveys were designed with introductory and background (personal information) questions first; they could be easily answered and would provoke interest in the interview. More complex and detailed questions were put toward the end, after the respondent had the opportunity to further understand the nature of interview. Questions were grouped by the categories of background, course evaluation, and course applicability/feedback to enable respondents to follow the general line of questioning and supply chain management. A combination of closed (scale or ranking) and open-ended questions were used.

The questionnaires were also pilot tested to detect vague, confusing, or misleading questions. This also helped determine whether the structure and length of the interview was appropriate.

3.4 Data Collection

The data collection process has been a collaborative effort between the home and field office staff. Representatives from both interviewed HSA faculty and management staff and also finalized the

questions and methodology for data collection. Field office staff followed up with beneficiaries to get as many of them to complete the survey as possible.

Prior to administering the interview questionnaire, formal consent was obtained from each respondent. Confidentiality of respondents has been ensured during both the interview and data processing.

The data collection was done in two phases. In the first phase, face-to-face (at work sites or residences) interviews were conducted with selected trained HSA faculty and senior management. These interviews were conducted in person, where possible; but, as some were abroad, we had to depend on email questionnaires.

In the second phase of data collection, students were emailed a 33-question survey. Emails were obtained from course registration sheets. Telephone calls were made to this group to encourage their participation. As this was done during Ramadan, responses were possibly a little lower than they would have been otherwise. However, 38 responses out of 60 is still a very good return rate.

4. Survey Results

4.1 Students

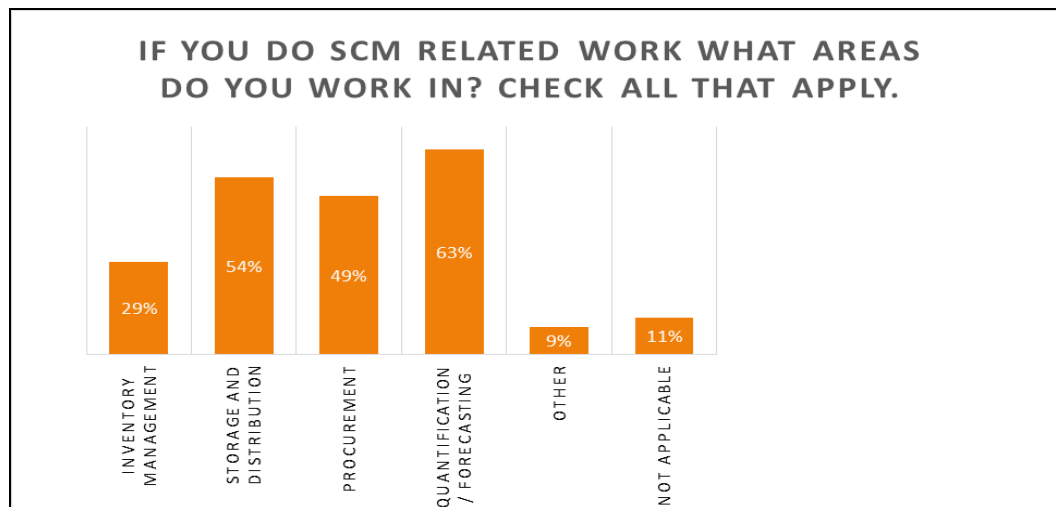
Approximately 60 students were trained during the three courses that were offered at HSA (two Certificate courses and one Three Credit course). Of these, 38 responded to our survey.

4.1.1 Who took the courses? (Questions 1, 3, 5, 6, 7, 8)

The student respondents were from two groups—those who took the Three Credit course and those who took the Certificate course. These were primarily those with minimum-to-no public health working experience and those already working in the public health or related sector, respectively. The courses were designed to meet the unique needs of each group and, as such, served both as pre-service and in-service training.

About two-thirds of the respondents who took the Certificate course were professionals. They worked predominantly with the Health Department or the Population Welfare Department; the majority of the remaining one-third were public health students who took the Three Credit course. The professionals, typically, worked in areas of quantification/forecasting and storage/distribution at the provincial and district levels (24 of 38 respondents).

Figure 1. If you do SCM-related work what areas do you work in? Check all that apply.



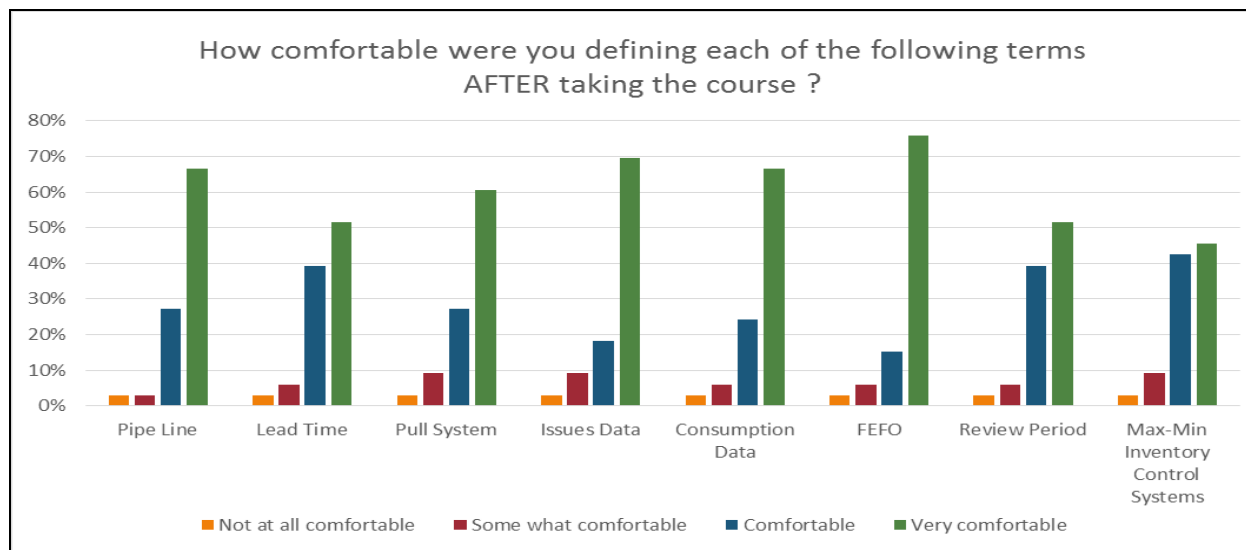
4.1.2 Why did participants take the courses? (Question 2)

Thirty-five course participants responded to this question. The most common responses among the professional students was to improve their knowledge of supply chain management and because they currently had supply chain responsibilities. Others were nominated by their provinces/departments. Non-professional students reported that it was part of their course of study and that the topic interested them.

4.1.3 How well did participants understand logistics terms and concepts? (Questions 9, 10)

As a result of taking the course, participants felt that they had a much greater ability to define key logistics terms and concepts than they had before taking it. For instance, only 24 percent of respondents said they felt comfortable, or very comfortable, defining the term lead time before the course; but, after, a full 91 percent felt that they could do so. Similarly, only 27 percent of students felt comfortable or very comfortable explaining what a review period is in logistics; while, after, a full 91 percent felt comfortable or very comfortable doing so. Participants expressed similar levels of improvement with other logistics concepts, as well.

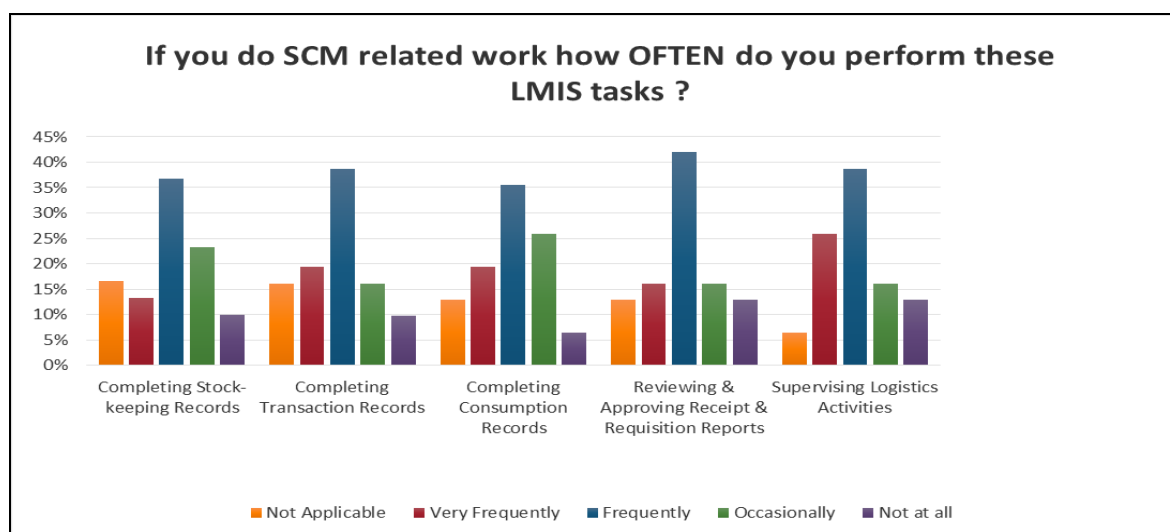
Figure 2. How comfortable were you defining each of the following terms AFTER taking the course?



4.1.4 How useful was the course content for working participants? (Questions 12, 15, 18, 25)

Significant impact on daily activities was noted by the students as a result of the practical topics that were covered during the course. This is supported by how often they reported doing these tasks on the job. Fifty percent of students completed stockkeeping tasks, either frequently or very frequently; 58 percent reported completing transaction records either frequently or very frequently; and another 65 percent reported the same for supervising logistics activities. Across the LMIS tasks that were taught, an average of 57 percent of the working participants reported that they did these tasks either frequently or very frequently. A small, not applicable, score of 13 percent was registered with the remainder either doing these tasks occasionally or not at all.

Figure 3. If you do SCM-related work how OFTEN do you perform these LMIS tasks?



The three storage tasks that were queried received an average score of 49 percent for being done either frequently or very frequently, with an average *not applicable* score of 16 percent.

The last set of tasks that were queried focused on stock assessment. Of the four tasks, an average of 54 percent of the students said they did these tasks either frequently or very frequently, with an average not applicable score of 11 percent.

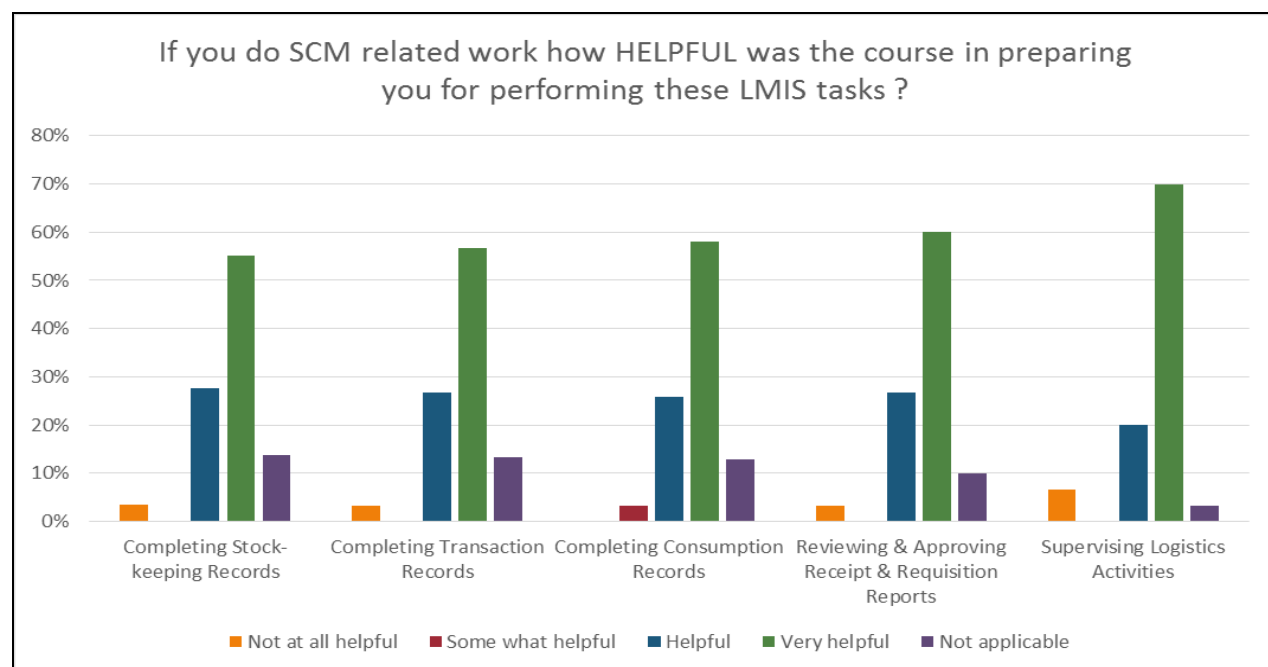
Students also found the course materials helpful, as demonstrated by their responses to question 25, where 50 percent said they use the course material either frequently or very frequently on the job.

4.1.5 How helpful was the course in training participants to do logistics tasks? (Questions 13, 16, 19, 24)

When compared to course relevancy, participants showed even more appreciation for how the course actually equipped them to do their daily supply chain tasks. Of the five different LMIS tasks that students were queried on; 85 percent, on average (by task), reported that the course was either helpful or very helpful in preparing them to do these.

For the three principle storage responsibilities that were taught, an average of 74 percent of the participants said that the course was either very helpful or helpful in preparing them to do these. An average of 15 percent of the respondents said the question was not applicable to them, leaving only 10 percent reporting that the training they received in this area was either somewhat helpful or not at all helpful (one person).

Figure 4. If you do SCM-related work how HELPFUL was the course in preparing you for performing these LMIS tasks?



On average, 77 percent of students said that the training they received in the five stock assessment tasks was either helpful or very helpful. The question was not applicable to another 15 percent of respondents; only 3 percent reported the training in this area as either somewhat or not at all helpful. Finally question 24 directly asked students if the course helped them perform their job functions better. A full 94 percent either agreed or strongly agreed with the statement.

Value of Course Materials (Question 25)

Course documents are used by about 50 percent of respondents, either frequently or very frequently while on the job. Another 44 percent use them occasionally, which is quite high for course documents compared to materials made available in other courses that the consultants have worked on.

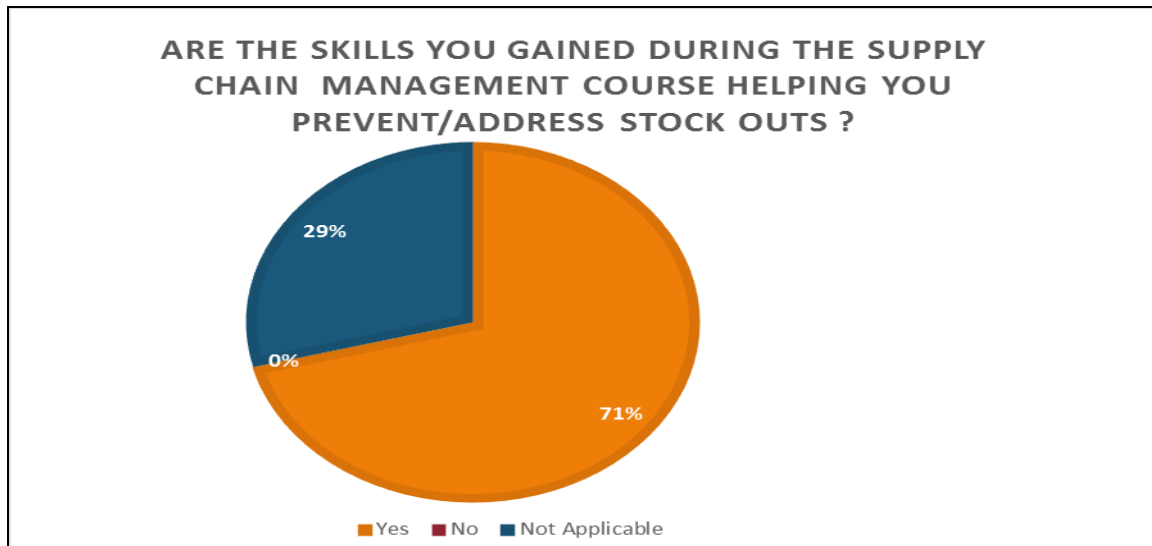
Student Support for Courses (Question 29, 32, 33)

There was overall great support for the course among students. Students felt that it was not only relevant to their work, as stated above, but that it was important to make the course available to future students. Nearly 80 percent of the students who took one of the courses shared information from the course with colleagues or other students.

Preventing Stockouts (Question 28)

Most important, a full 71 percent said the skills gained in the course were helping them prevent or address stockouts. The remaining 29 percent of respondents reported the question was not applicable to them, which indicates that everyone who works and took the course feels that it delivered on this core goal.

Figure 5. Are the skills you gained during the supply chain management course helping you prevent/address stockouts?



4.2 Faculty/Administration

Of the four faculty who received orientation sessions and presented the courses, only two could be reached for their comments. Of these two, one took the survey in person, while another was sent a copy though email. Two HSA management staff also took the survey.

Faculty and management reported new-found respect and understanding for the importance of public health logistics. They thought the courses were both challenging and useful to the two student populations, and that they should continue being offered. They acknowledged that a lack of funding and permanent faculty made it difficult to sustain the courses and provide them on a regular basis. There was a mix of optimism and doubt among the respondents as to whether these obstacles could be overcome in the long run. (See attached faculty survey in the annexes.)

5. Conclusions

5.1 Faculty and Management Staff

Reviewing the goals of our assessment we were particularly interested in—

1. Learning how they saw the long-term sustainability of the SCM courses being presented.
2. The probability of SCM courses being offered at HSA on a regular basis.
3. If they thought HSA had the capability to provide support to other institutions interested in providing these courses.

From our interviews, we learned that for long-term sustainability of the SCM courses at HSA, funding continues to be a central issue. HSA has expanded but does not have the faculty readily available to teach its many courses. Sustainable courses require faculty that have been trained in this subject, but those who received the orientation and taught the courses were contractual employees, not full-time. These faculty members left HSA for lack of work or more regular employment. There is only a small permanent staff at HSA, which is about 15 percent of the total faculty. So the SCM courses are not the only courses with this problem.

Until there is regular funding to provide faculty, it is uncertain if the SCM courses will be offered on a regular basis. However, HSA wants to offer them regularly to Master of Science in Public Health (MSPH) and Master of Science in Public Health Extended Program (EMSPH) programs. Students who take this course as an elective would pay their course fees, but providing the courses to other students would require additional support from other sources.

It is questionable if HSA can take a lead role in helping other institutions provide these courses. Some of the respondents expressed skepticism, while others felt assured that HSA could do this. The HSA faculty trained in SCM are willing to take on this role if they can receive support to do so. It was pointed out that memorandums of understanding (MOUs) were already signed with health departments in the provinces to help build their capacity and expertise. These could be revisited with further support.

The faculty and management clearly felt the courses were worth the effort, not only because of what they learned, but also for what the students got out of them. They provided faculty and students alike with an important lens for evaluating public health systems. It was pointed out that professionals from the provinces often didn't understand key logistics terms, so the course was relevant to them and their work. It was also the first time that students were introduced to public health logistics, so it opened their eyes to the importance of this component of public health systems.

It is worth noting that the faculty seemed a bit reluctant at first to take on the courses; but, over time, they came to appreciate the importance that logistics plays in the functionality of the public health system. One faculty member reported that it made a big difference in their ability to do their current job.

5.2 Students

One of the goals of the assessment was to understand how useful the course was to students' understanding of key logistics concepts and how well it would help them in their work. The other main objective was to see if they thought the courses should be shared with, and implemented by, other institutions.

From the survey data, a large majority of respondents (20 of 22) either agreed, or strongly agreed, that the course helped them perform their job functions better. The survey data shows that the majority of students felt that they could define key logistics terms much more comfortably after the course—even for those who already had logistics responsibilities. When people become more confident in their understanding of terms, it suggests they can more readily apply and teach them correctly to others. Because the course participants were either becoming public health professionals or were already working as such, it suggests that these courses, if provided to enough students, could have a positive influence on Pakistan's public health supply chain and system, as a whole.

The survey also assessed the beneficiaries' views on whether the SCM courses should be implemented in other public sector institutions. One hundred percent of the beneficiaries said they thought they should be provided (see question 32). The survey showed that one person disagreed; but, upon opening the response the person wrote "because they are the best institution with qualified staff." This indicates an initial marking error. Some of the reasons given for why they should be offered by other institutions include that the courses are: helpful at every level, essential for public health managers and administrators, [they] build important local capacity that will encourage greater ownership in the provinces, and the courses will prepare students for better performance in the field and increase the knowledge of others not attending the courses.

It is encouraging to note that students gave high rankings to the course immediately after taking it in October 2012 (see annex 1); they continued to see it as a valuable and worthwhile course almost two years later. This shows that the course was not just a feel-good experience, but had lasting impact. Even though the courses were not as immediately applicable to the non-professional students, it is worth noting that they also gave it high marks.

The current survey data confirms that the courses not only provide practical training to students, as reflected by numbers who regularly perform the same tasks that were taught, but that the methodology is sound. This is reflected by the numbers who said the course prepared them to do these tasks better. To improve the courses further they would need to be targeted more to the needs of the participants.

Fortunately, the answers for how to do this can easily be found in the feedback from question 30, where students suggest that more time should be given to procurement, quantification, and monitoring and evaluation. Further direction comes from question 31, where students say that the course could be made more practical by extending its length, providing field visits, and providing more hands-on learning opportunities. Following these recommendations would only be helpful if we assume that students in future courses will be similar to those who took these courses. Finally, the course should be made even more specific to Pakistan; and it should be updated about every two to three years as the Pakistan public health logistics system evolves.

After the initial investment in these courses, subsequent offerings will become cheaper, per capita, as HSA takes over, even with limited additional outside inputs.

The reported impact of these courses will only increase as the beneficiaries of them enter the workforce or move higher up the professional ladder and share their skills with those they manage through on-the-job trainings or supervision.

6. Recommendations

To ensure ongoing impact, USAID should continue to support both the pre-service and in-service courses (the Three Credit and Certificate courses). There is great interest in these from the students who took them and they've proven to be very practical and useful, especially for those already working in public health. More important, there is a great need within Pakistan to have public health staff trained in these skills.

To ensure much greater leverage to enhance public sector capacity, USAID should support other institutions in Pakistan to provide these courses for pre-service training and in-service training. They may wish to focus this support on HSA, because they already have some experience running the courses. Remembering the current experience of conducting the pre-service and in-service trainings, giving further support could also help in further enhancement of HSA's profile as the lead public sector institution within the country. However, as they are a small institution without many full-time faculty, it could take time before they could provide much support to other institutions.

As an advocacy effort, a one- or two-day SCM orientation workshop should be held with faculty and leadership from other training institutions within Pakistan to help them appreciate the content and the value of providing this knowledge to their students. Nursing schools in other countries have been successful with this strategy in the past. However, all cadres of public health professionals who have logistics responsibilities should also be considered for this training. This could now be done for local students and public health professional with local Pakistan faculty.

It would also be helpful to connect with the Pakistan Pharmacist Association (or best related association) to offer these SCM courses as part of their professional continuing education requirements. An orientation for the courses may be offered. The chosen association may be willing to promote these courses through their professional publications or newsletters.

The Certificate course, the in-service component of the training, may be targeted to participants from the most underserved areas of the country.

Likewise for the Three Credit course, the pre-service component, scholarships should be offered to qualified women students interested in learning more about the subject and who may be able to apply it in their future positions.

Appendices

Student Survey from Survey Monkey

Table of Contents to Lecturer's Guide Certificate Course

Evaluation from First Certificate Course – October 2012

HSA Faculty and Leadership Survey

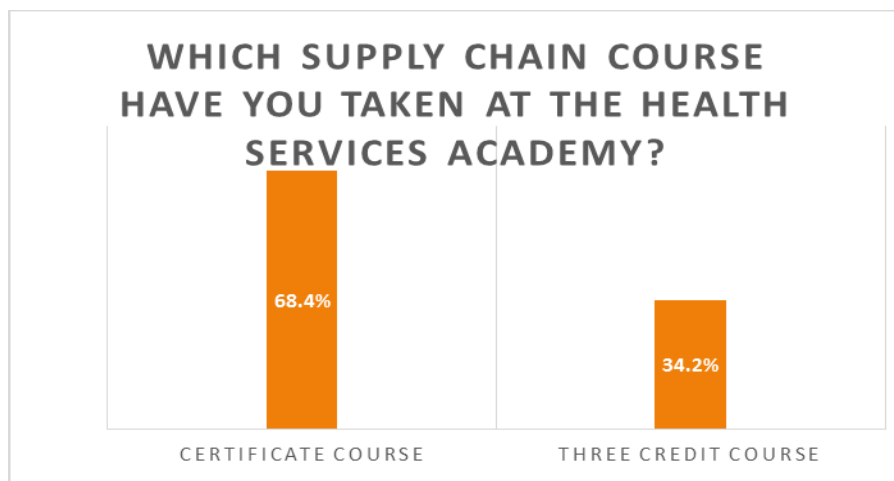
Appendix I

Assessment of Supply Chain Management Courses Offered by Health Services Academy (HSA)

Data Analysis—Student Survey from Survey Monkey

A majority of the respondents were enrolled in the Certificate course with the minority attending the Three Credit course. Most respondents were nominated by their respective departments for participation in the course, while others wanted to increase their individual capacities for working in supply chain management.

Figure 6. Which supply chain course have you taken at the Health Services Academy?



Out of the 92 percent employed respondents, a majority worked in Punjab and Sindh, followed by other regions, including Gilgit-Baltistan, Azad Jammu, and Kashmir. The distribution of individuals that were employed was fairly homogenous across the various provinces.

Figure 7. In what province or region do you work?

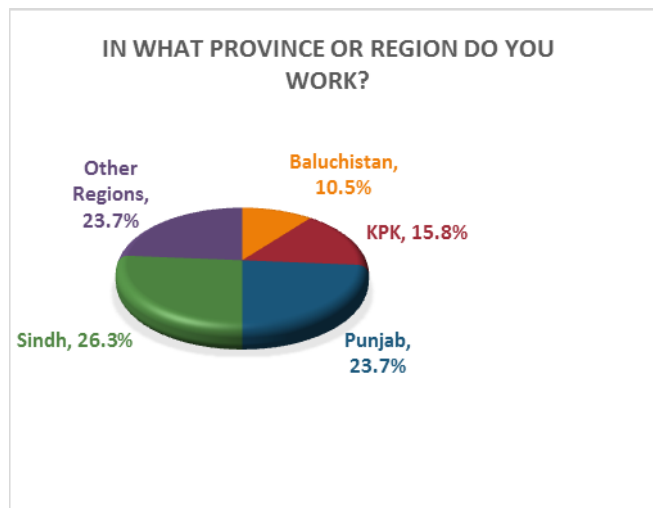


Figure 8. What is your current status?

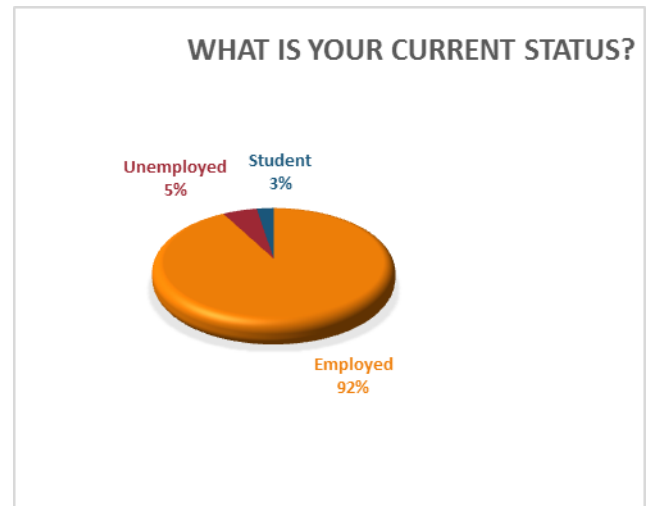


Figure 9. If you do supply chain management–related work, what level do you work at?

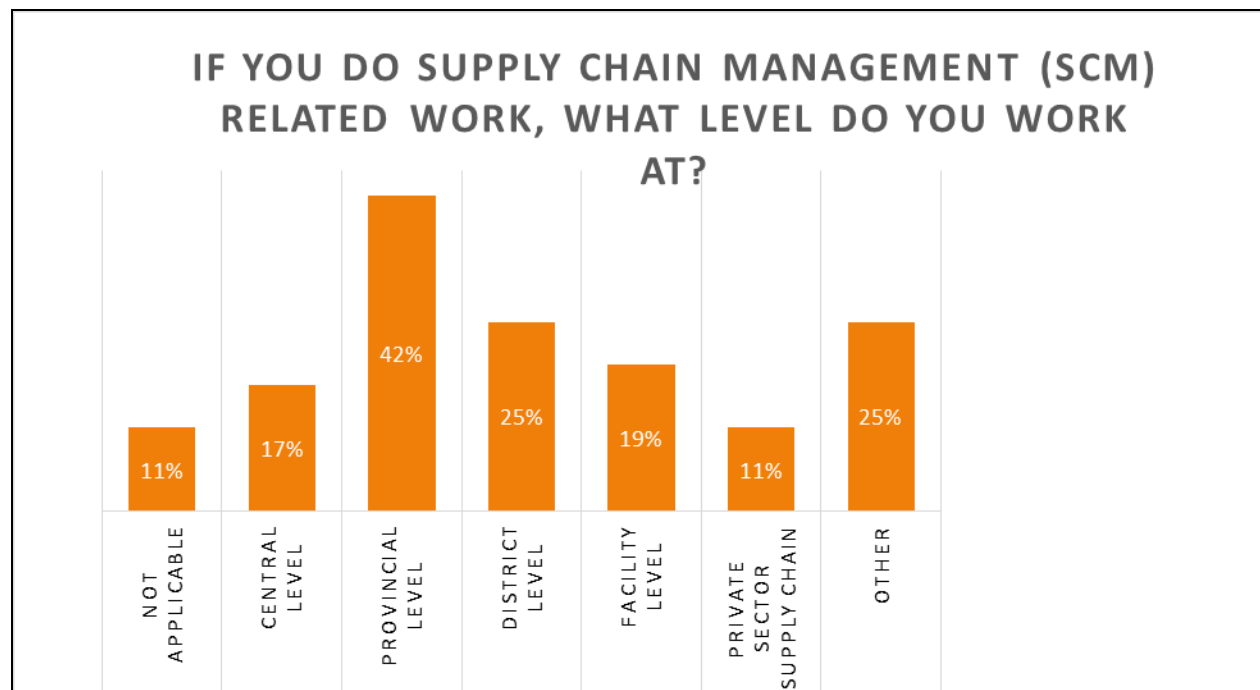


Figure 10. If you do SCM-related work, what areas do you work in? Check all that apply.

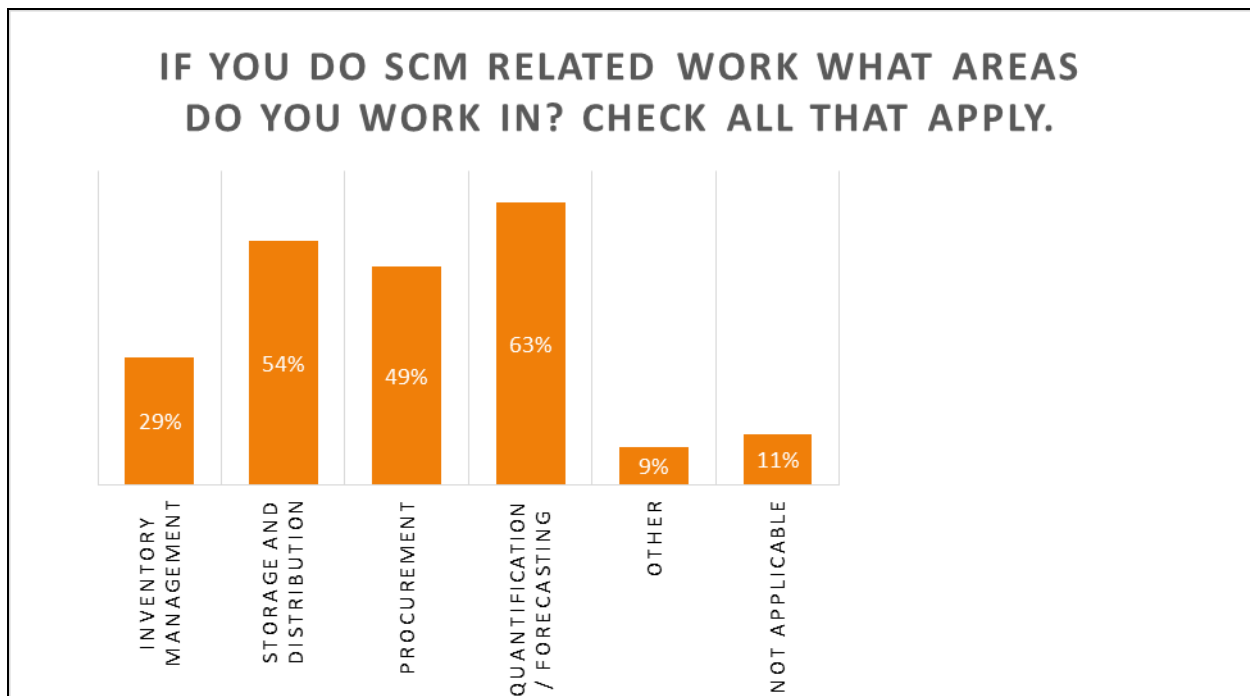


Figure 11. How comfortable were you defining each of the following terms BEFORE taking the course?

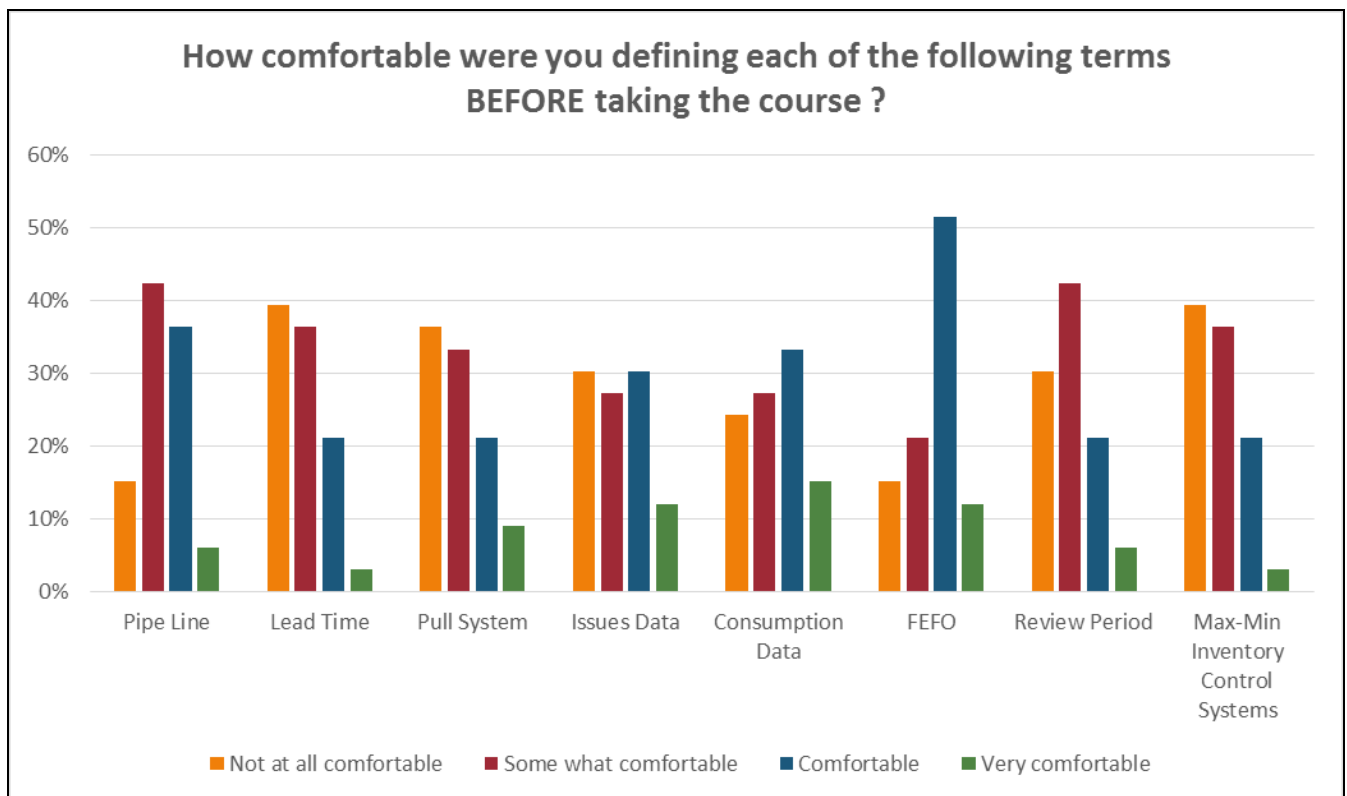


Figure 12. How comfortable were you defining each of the following terms AFTER taking the course?

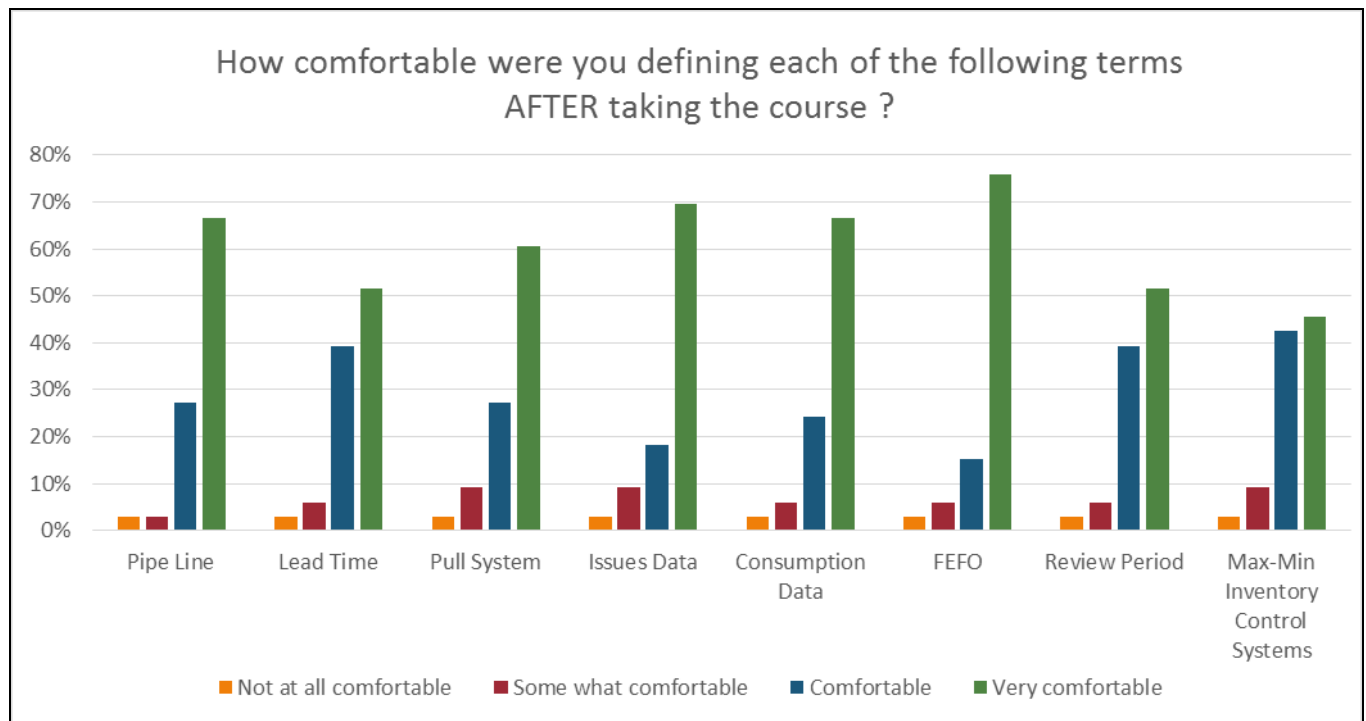


Figure 13. If you do SCM-related work how COMFORTABLE are you with performing these logistics management information systems tasks?

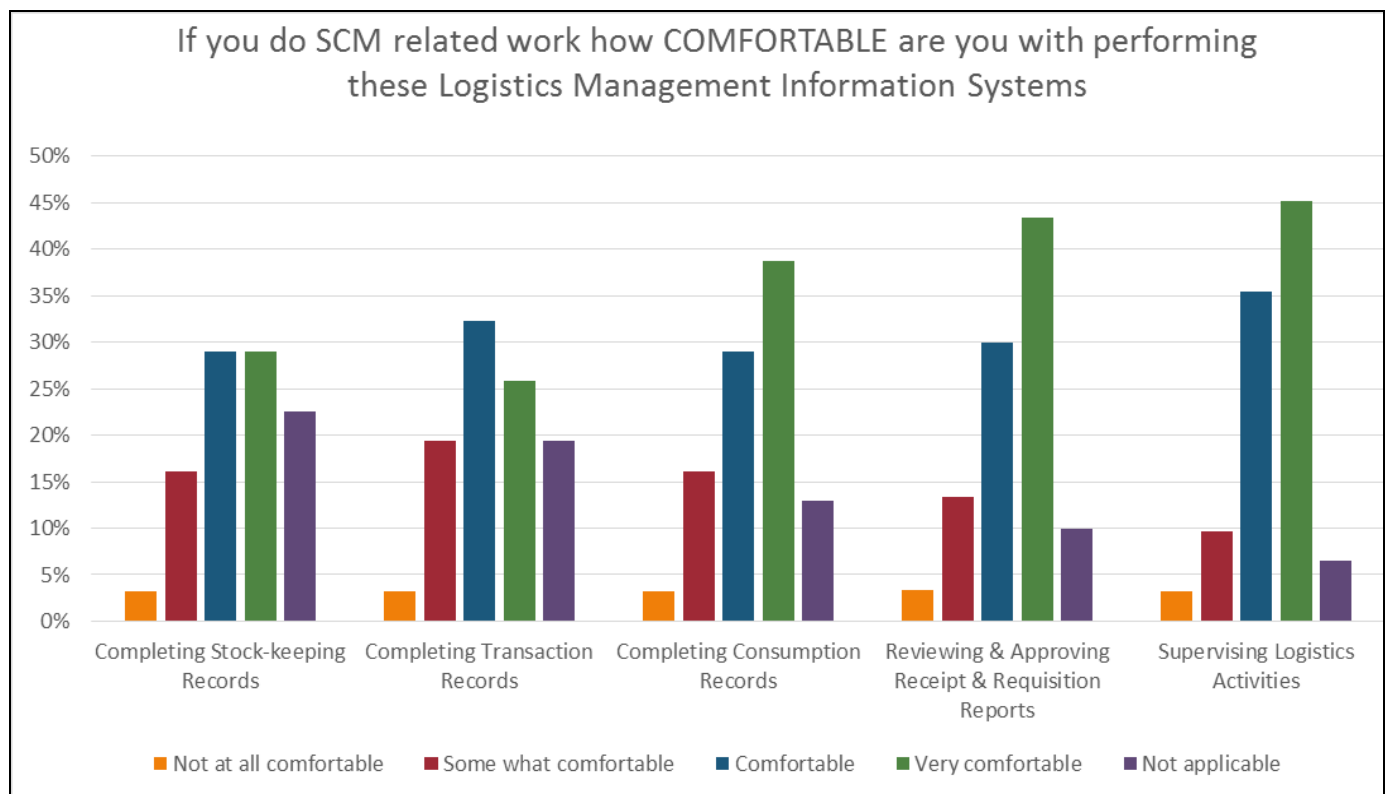


Figure 14. If you do SCM-related work how OFTEN do you perform these LMIS tasks?

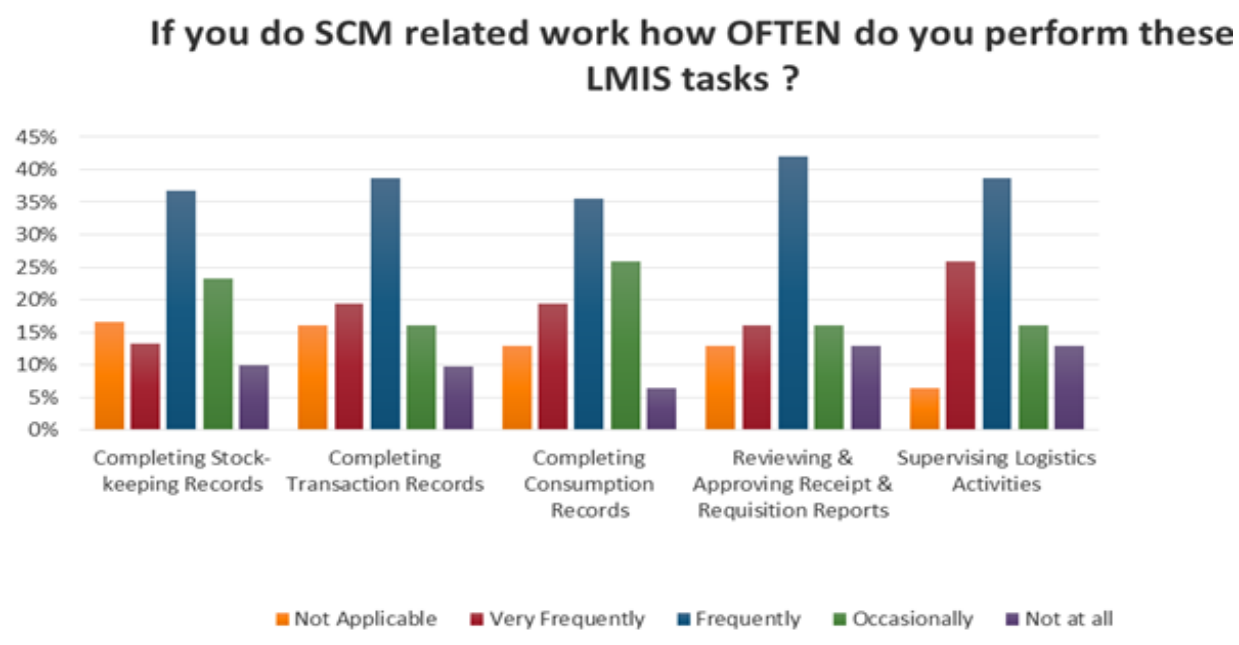


Figure 15. If you do SCM-related work how HELPFUL was the course in preparing you for performing these LMIS tasks?

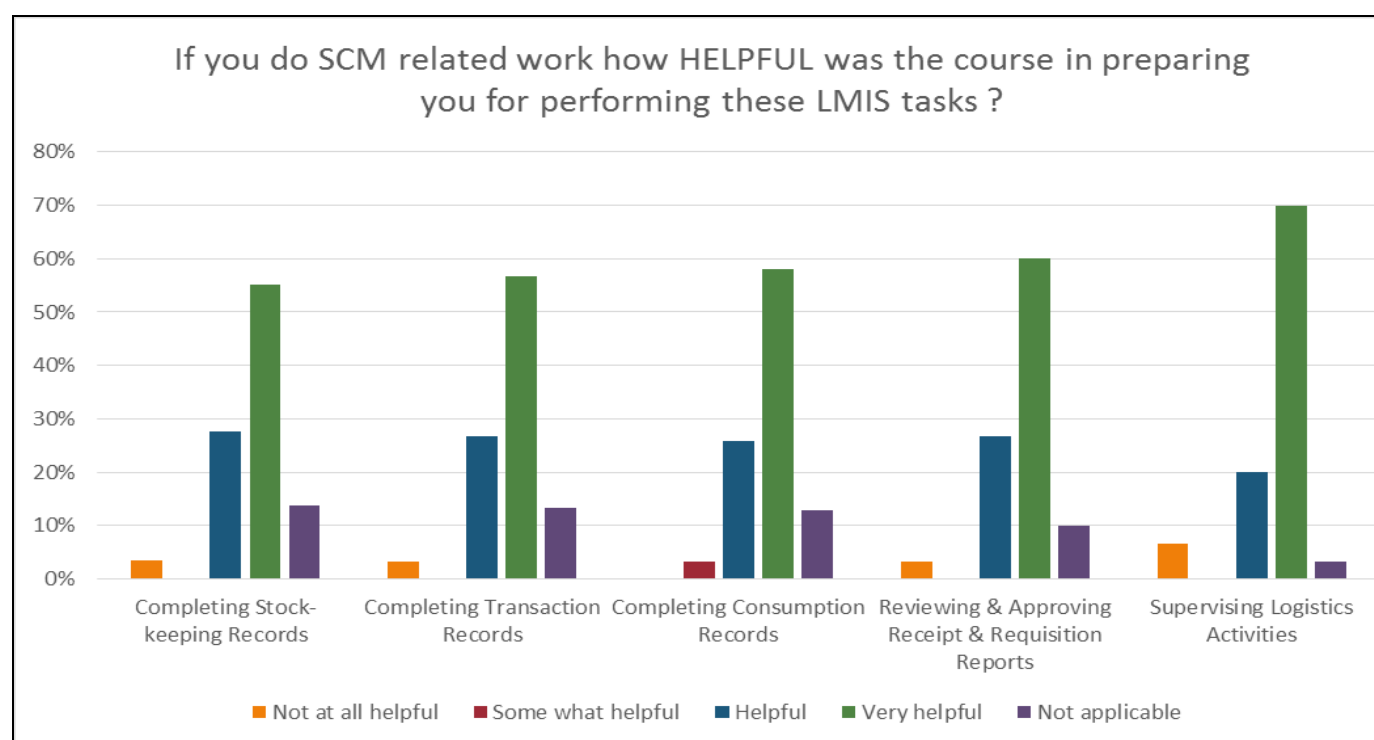


Figure 16. If you do SCM-related work how COMFORTABLE are you with performing these STORAGE tasks?

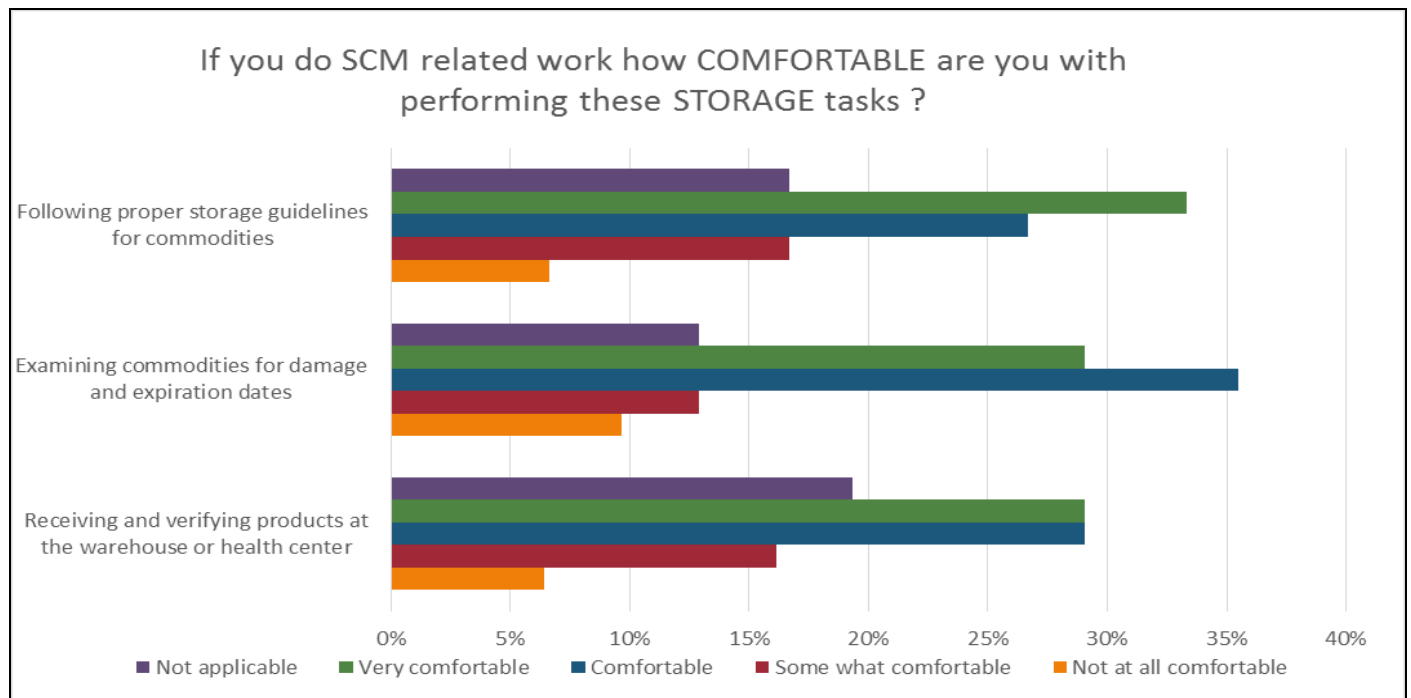


Figure 17. If you do SCM-related work how OFTEN do you perform these STORAGE tasks?

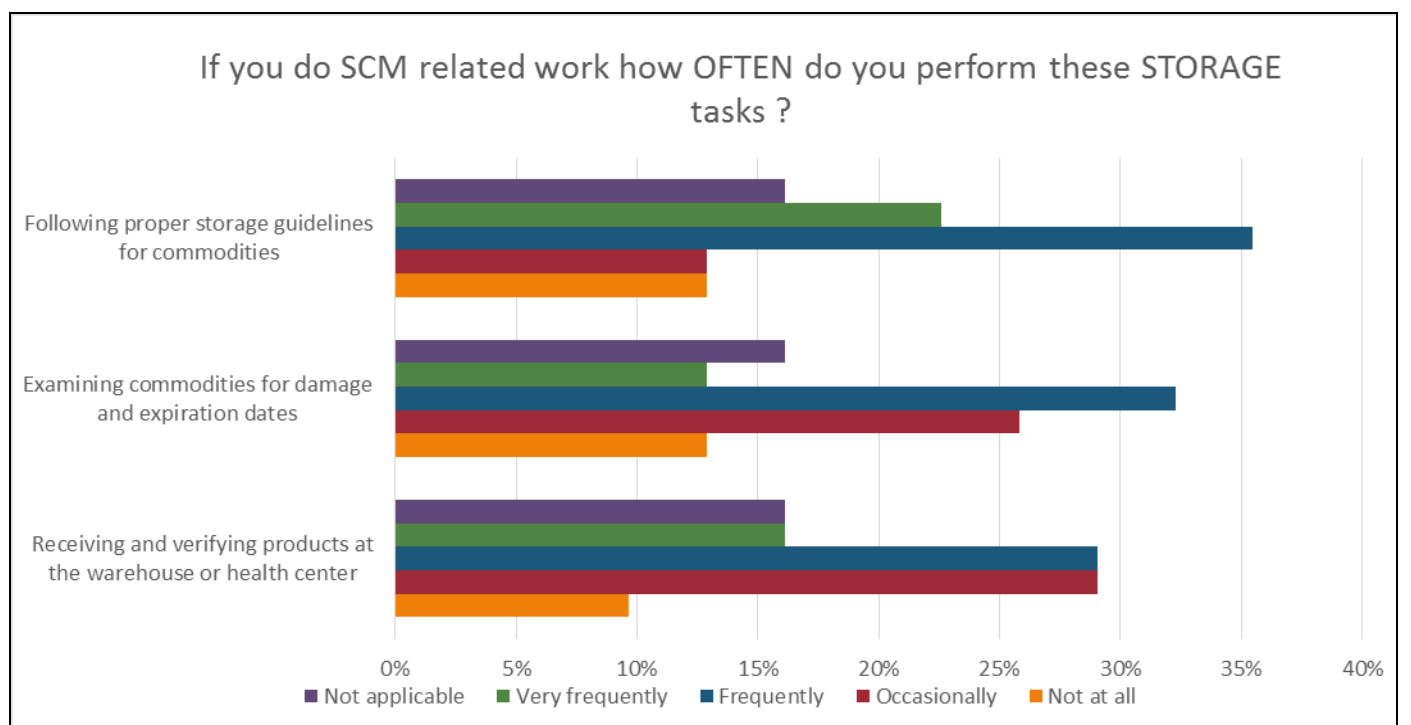


Figure 18. If you do SCM work how HELPFUL was the course in preparing you for performing these STORAGE tasks?

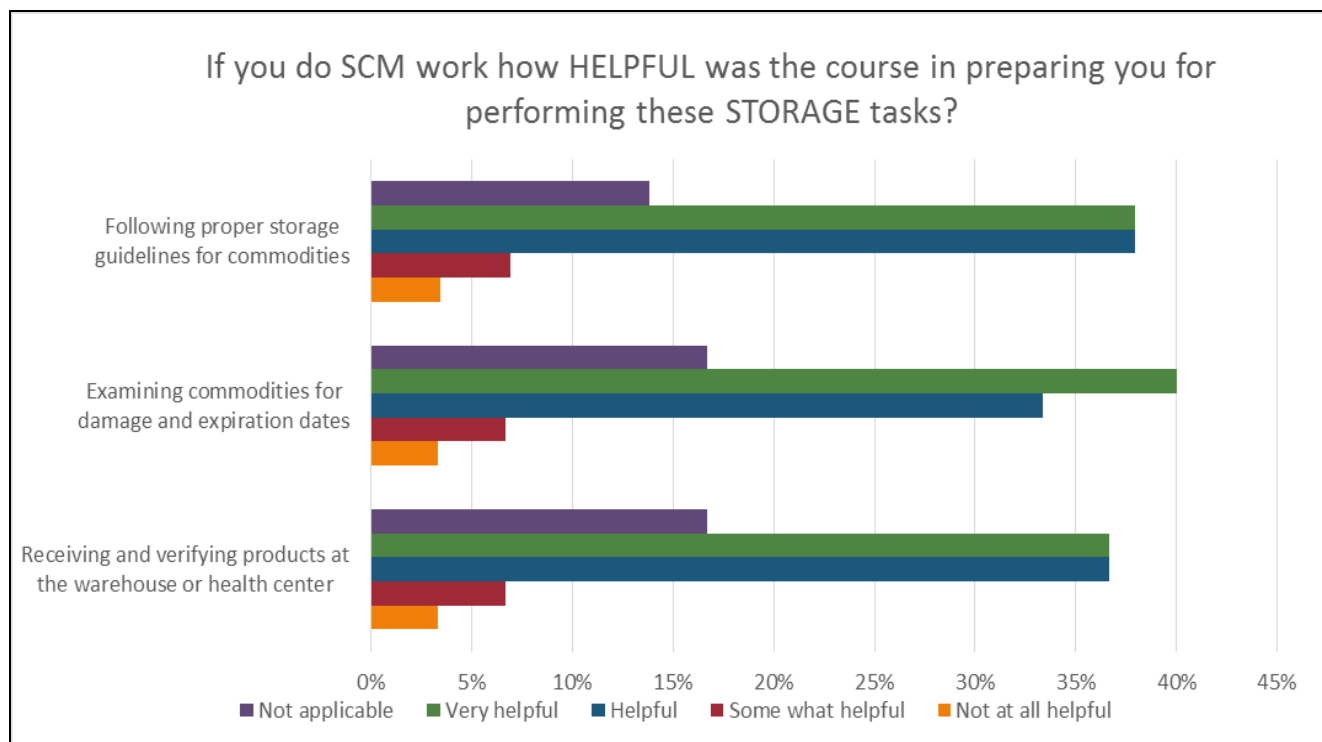


Figure 19. If you do SCM-related work how COMFORTABLE are you with performing these STOCK ASSESSMENT tasks?

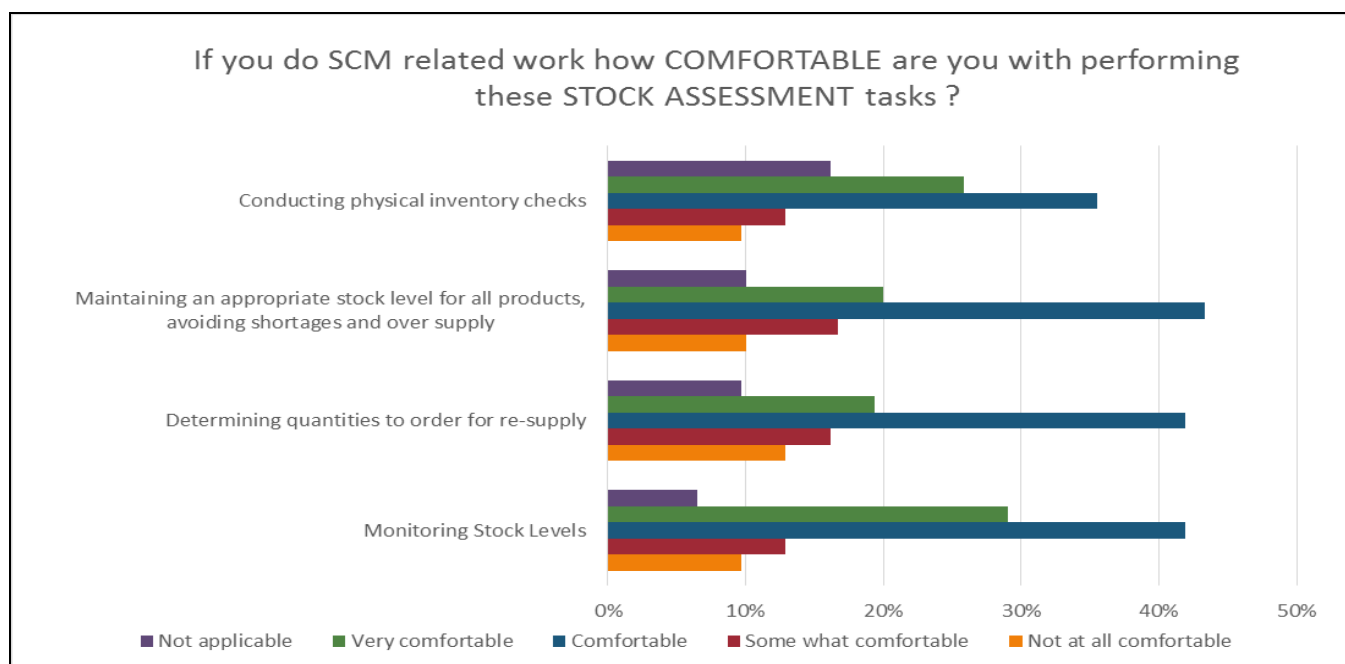


Figure 20. If you do SCM-related work how OFTEN do you perform these STOCK ASSESSMENT tasks?

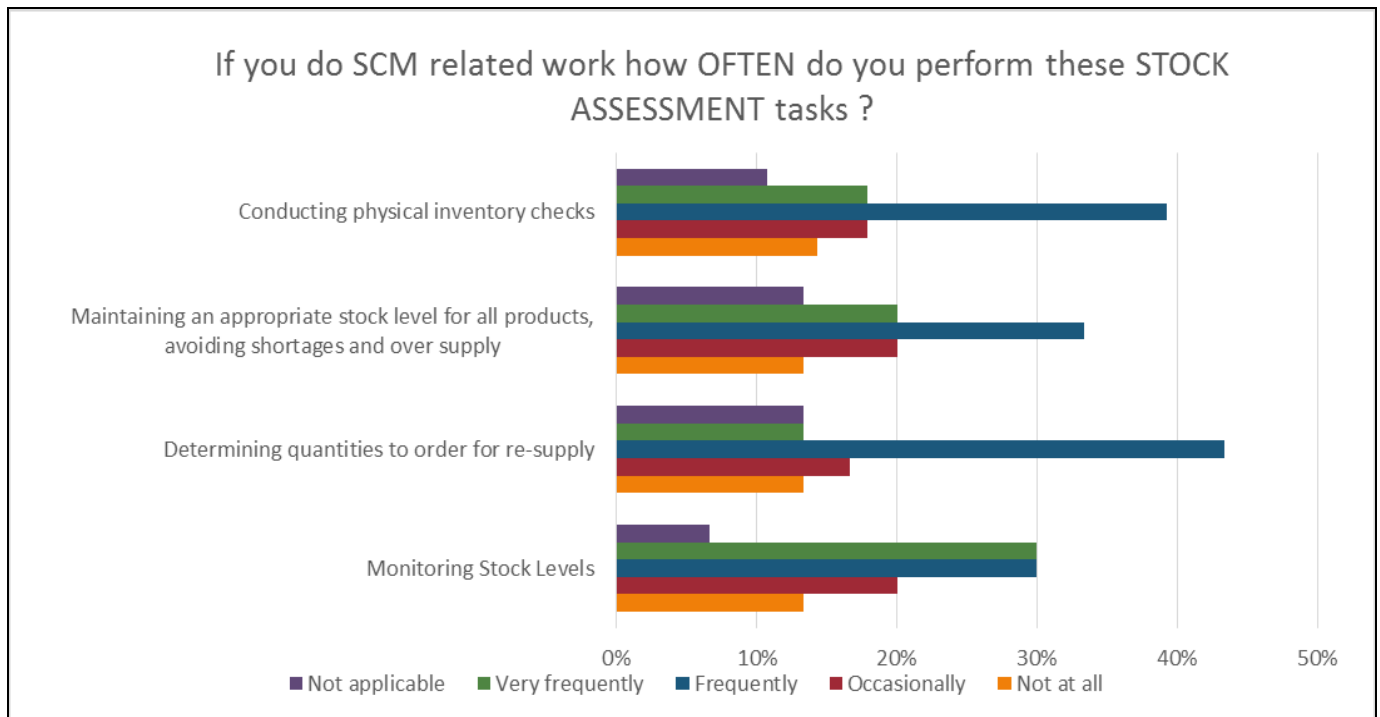


Figure 21. If you do SCM work how HELPFUL was the course in preparing you for performing these STOCK ASSESSMENT tasks?

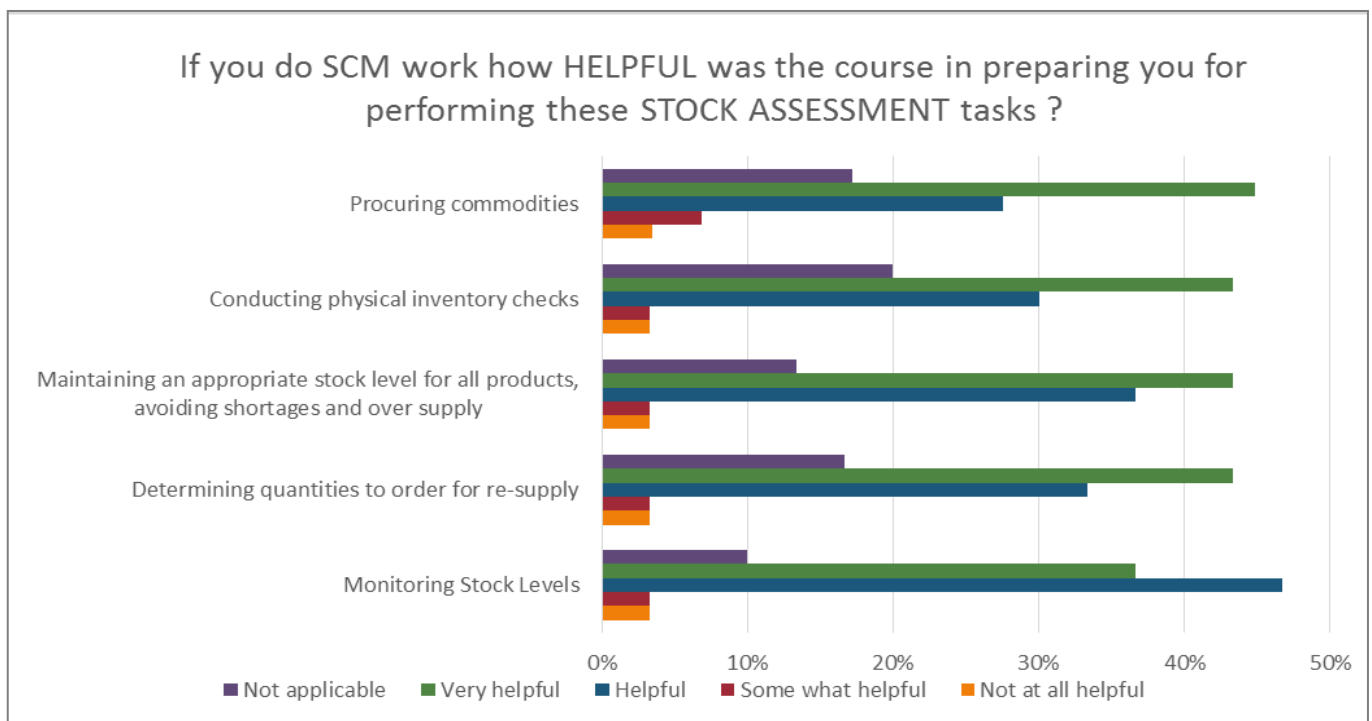


Figure 22. Which of the following PROCUREMENT topics would you have liked to learn more about in the course?

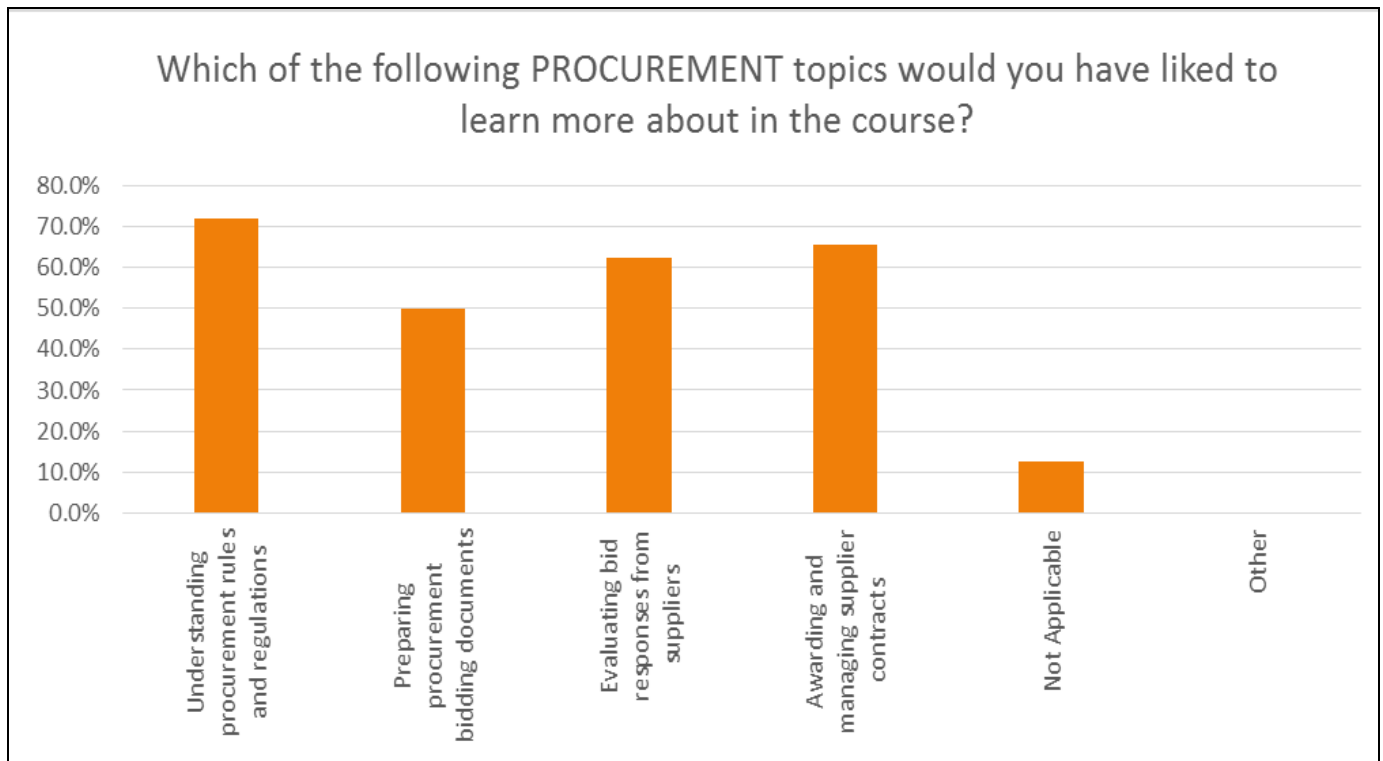


Figure 23. Please rate the following statements

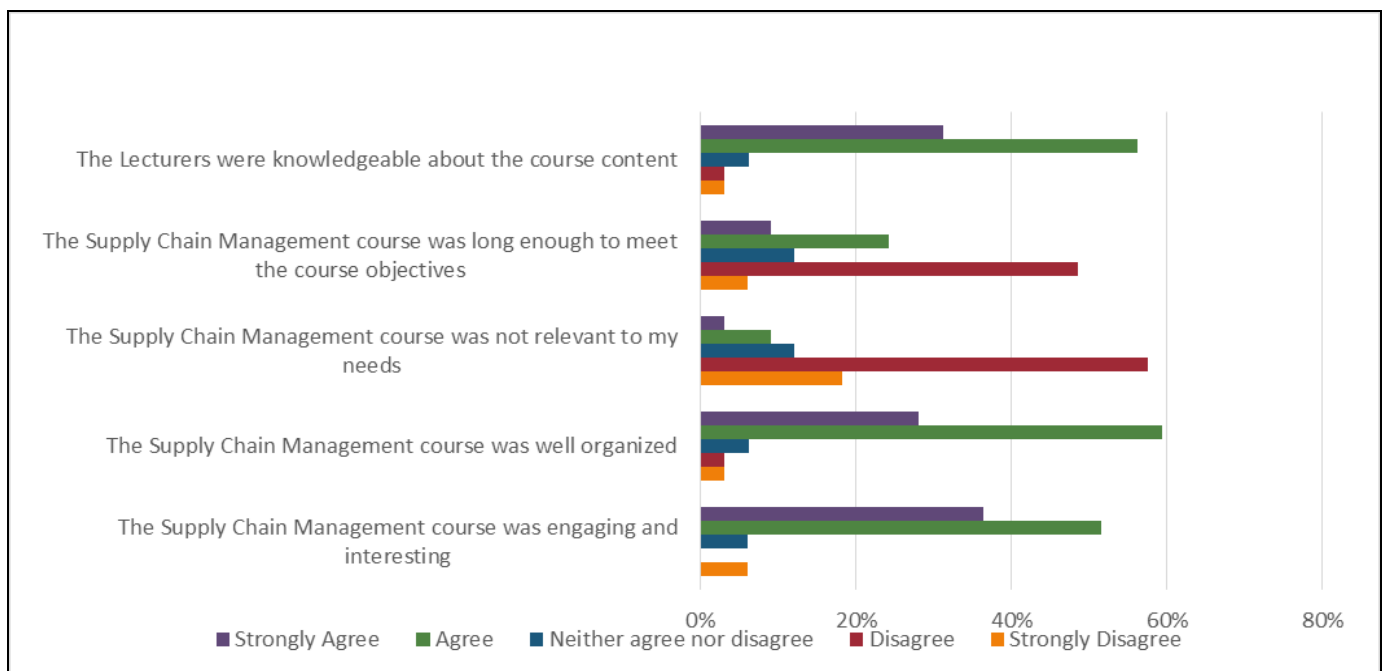


Figure 24. Select THREE course sessions that are MOST relevant to your work

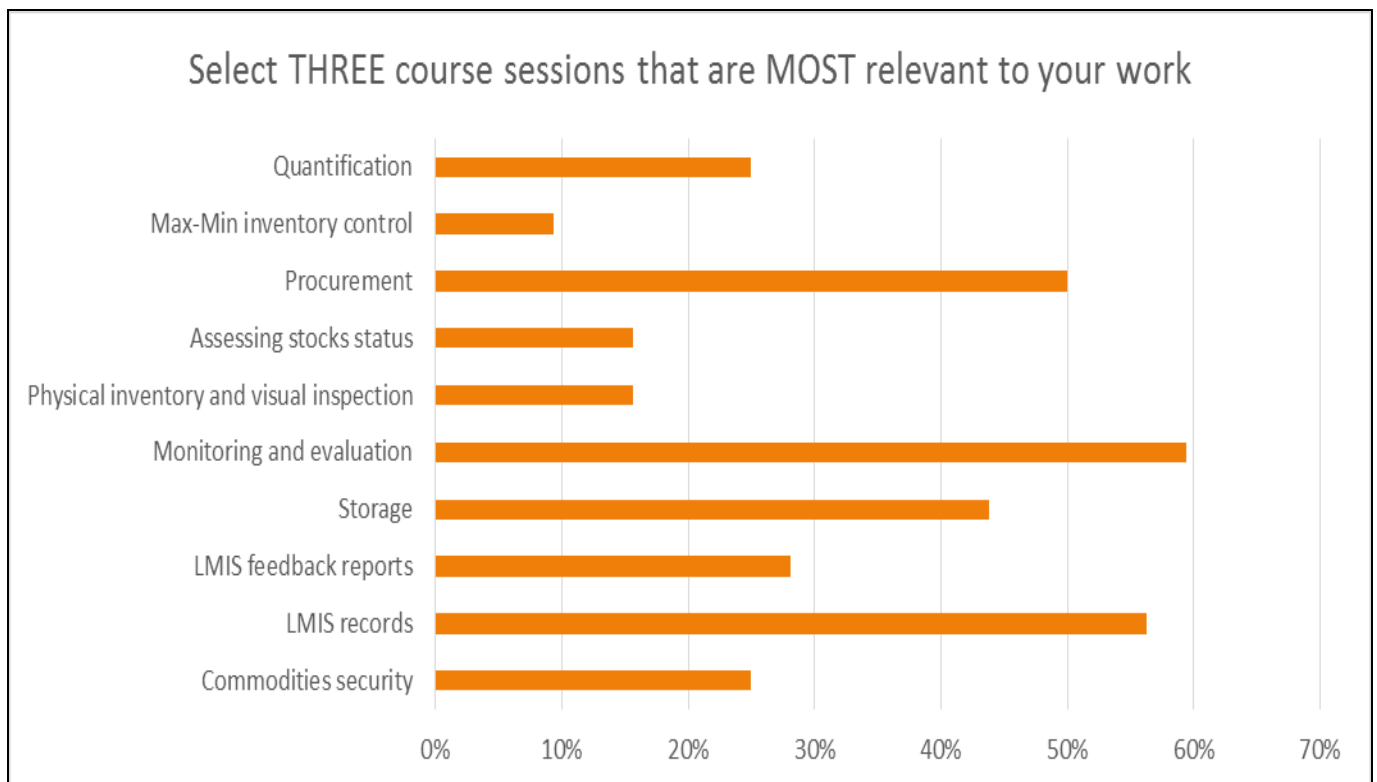


Figure 25. Select THREE course sessions that are LEAST relevant to your work

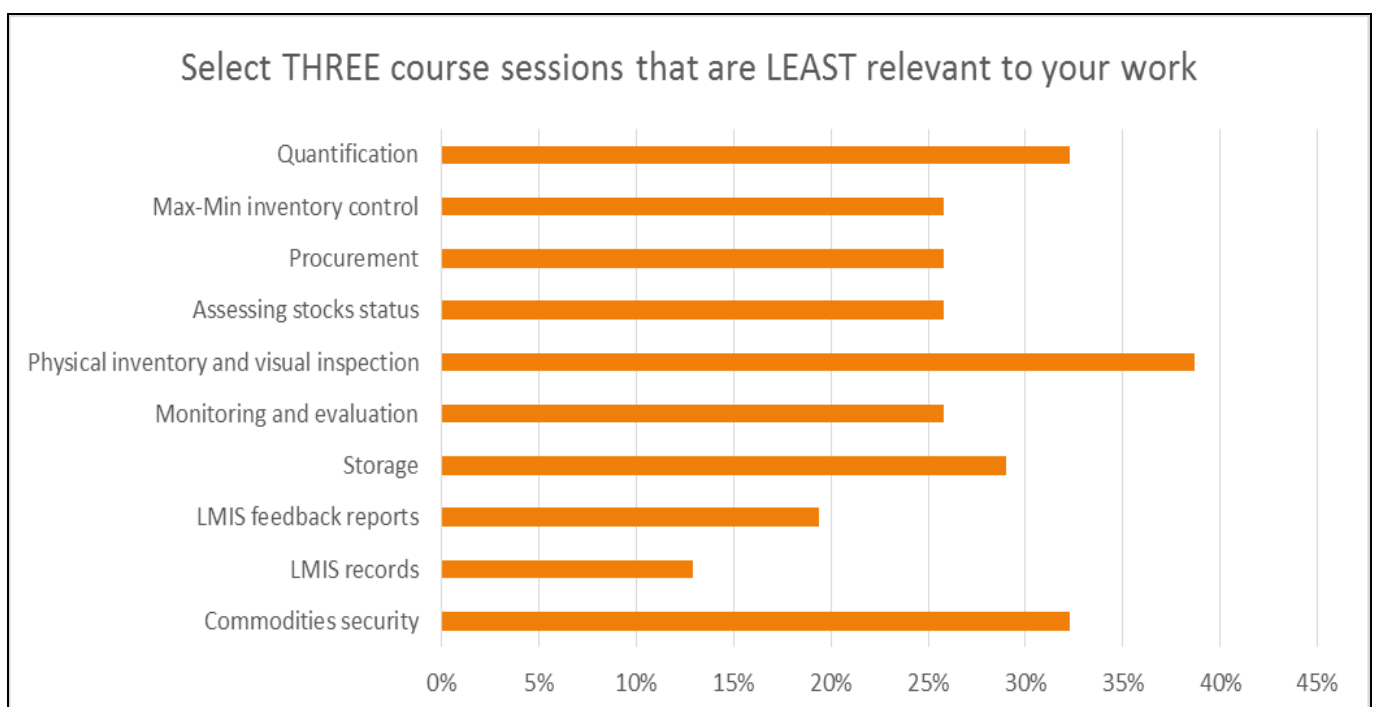


Figure 26. Select the course documents that are most applicable to your work

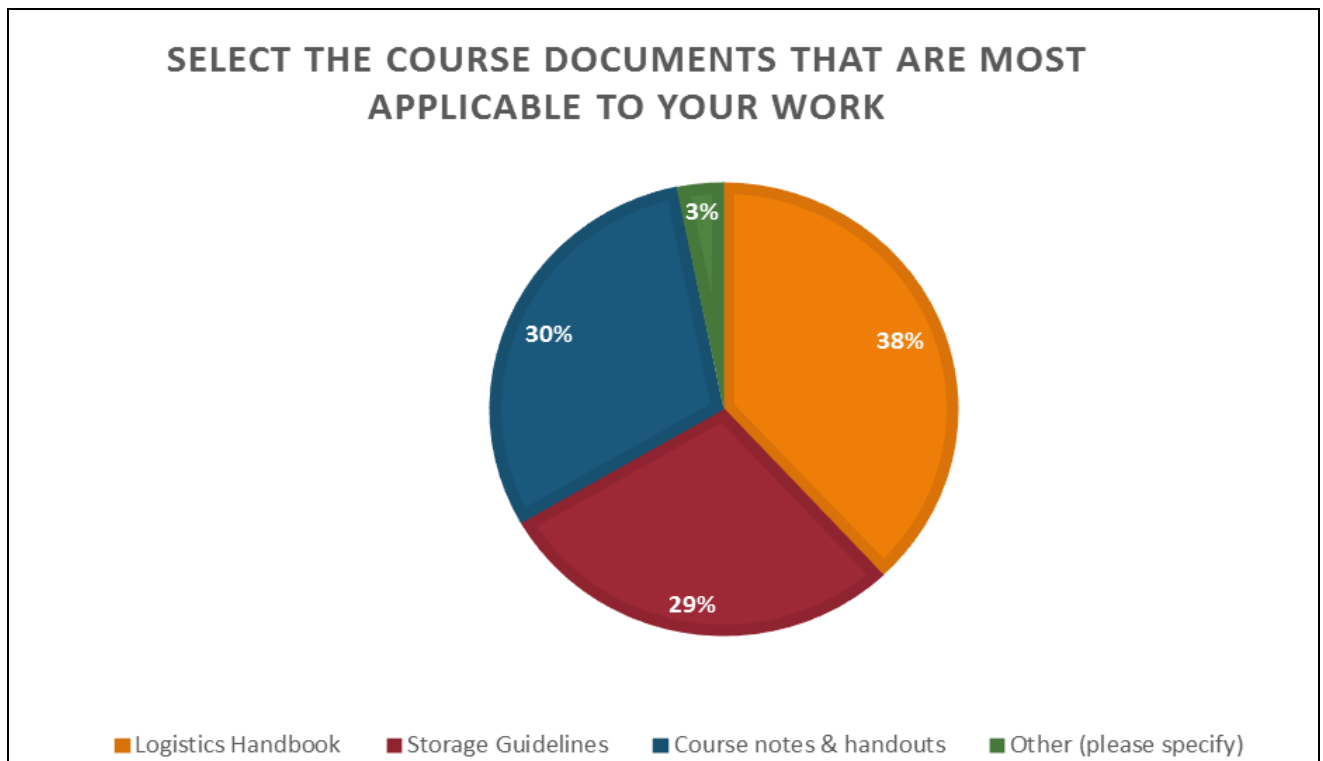


Figure 27. Select the documents that are least applicable to your work

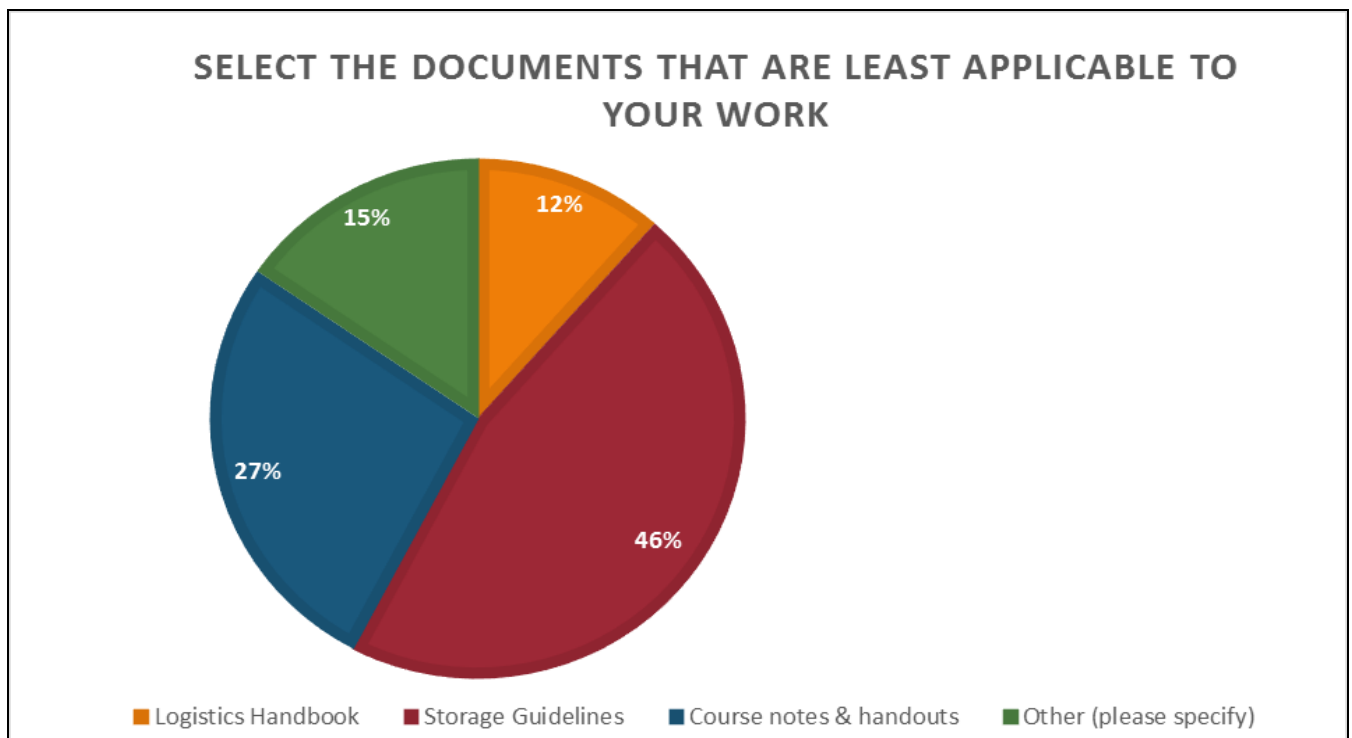


Figure 28. Are the skills gained during the supply chain management course helping you prevent/address stockouts?

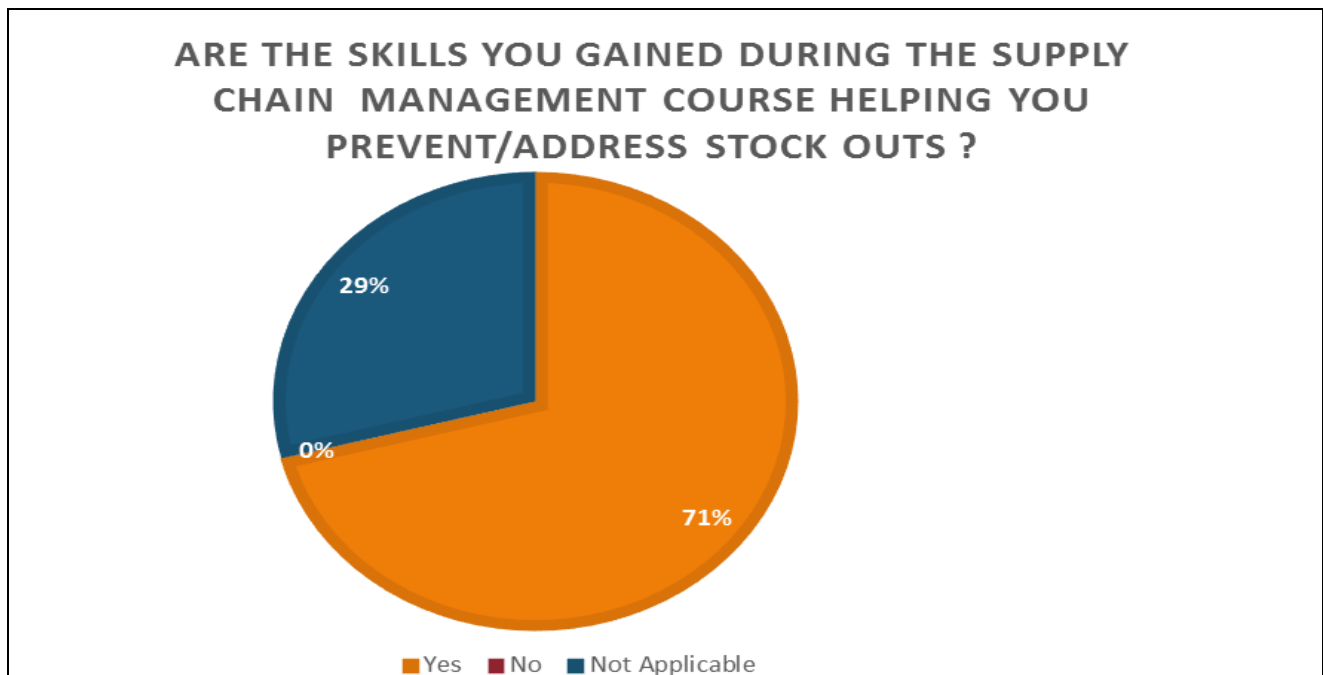


Figure 29. Have you shared any of your SCM knowledge that you learned during the course with colleagues and other students?

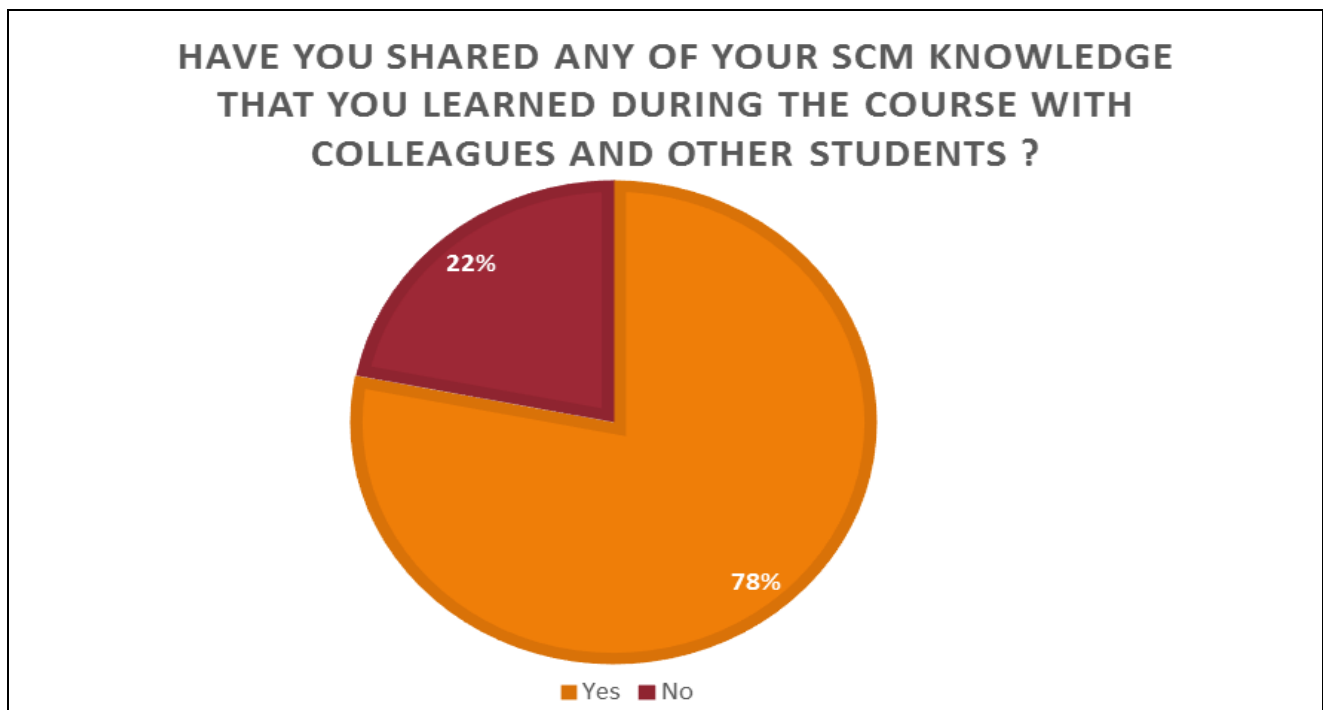


Figure 30. In your opinion, should the public institutions like HSA in provinces offer SCM courses?

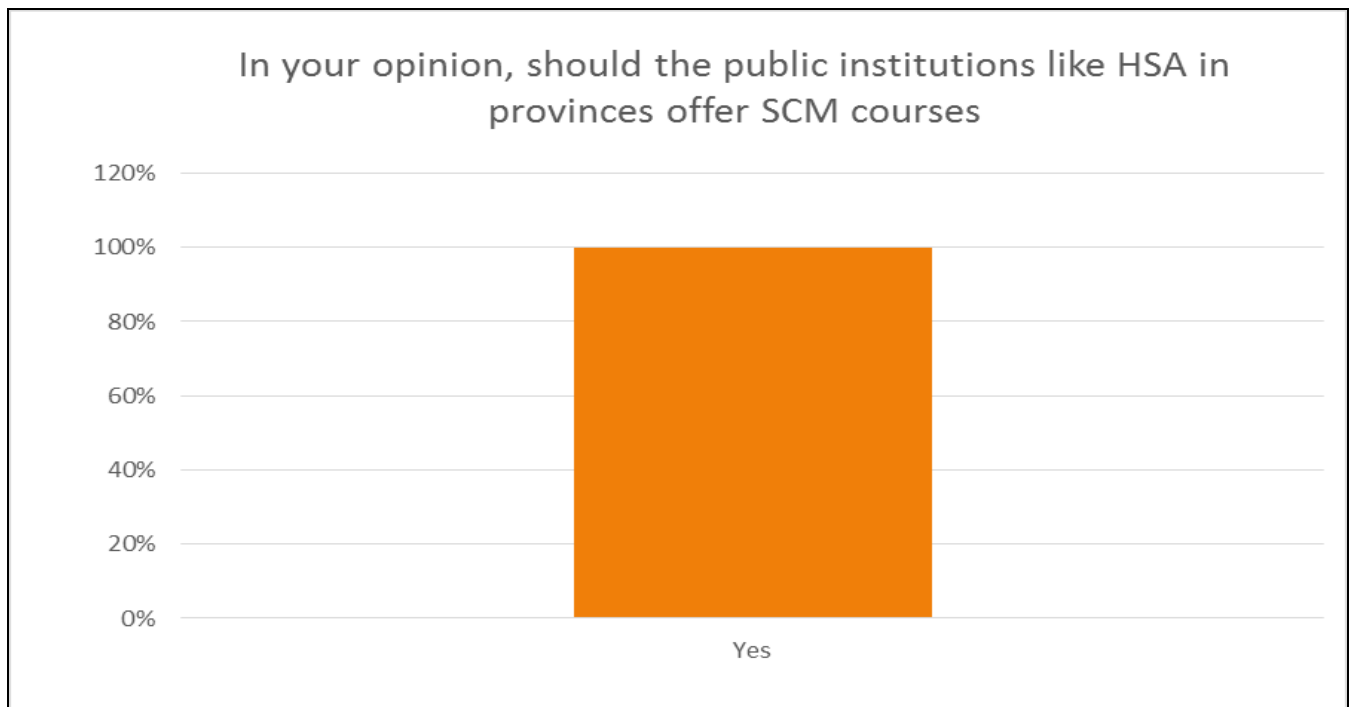
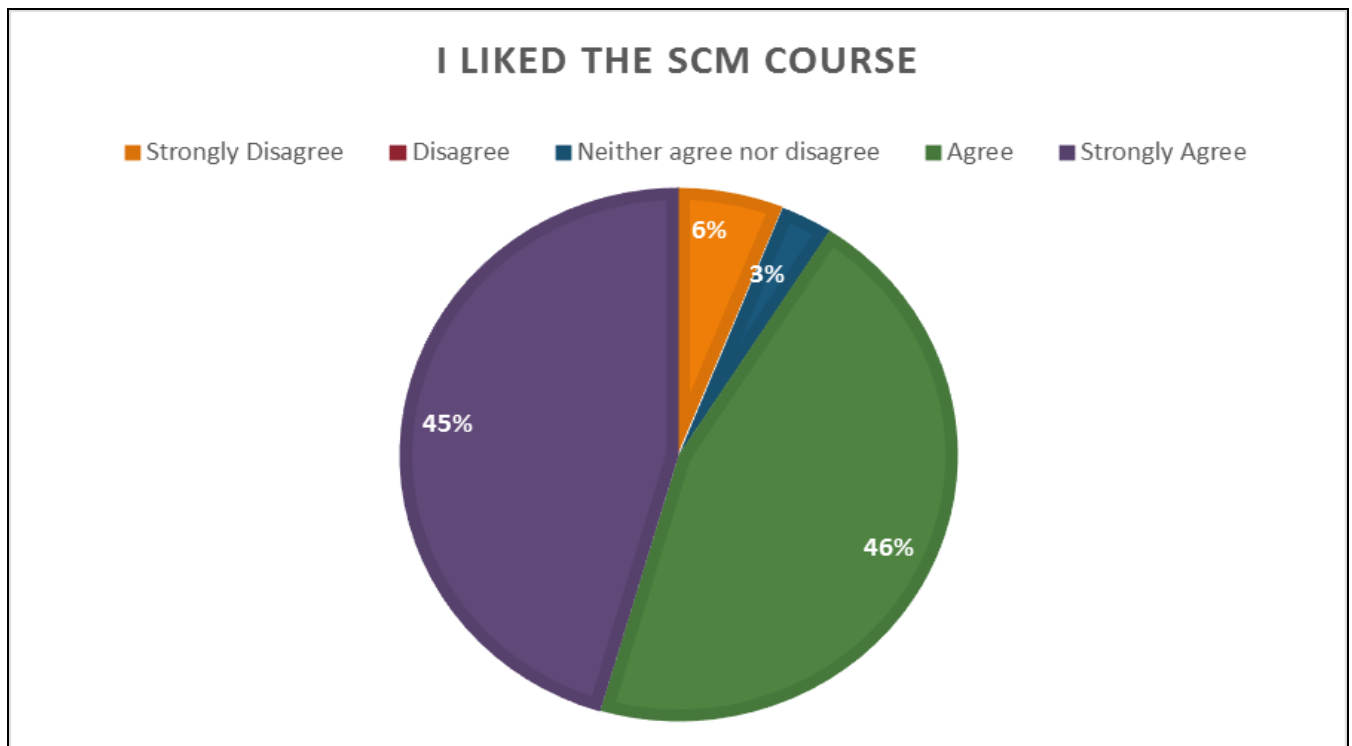


Figure 31. I liked the SCM course



Appendix 2

Introduction to Supply Chain Management

Lecturer's Guide Table of Contents

Course Materials List.....	
Acknowledgements.....	
Course Acronym List	
Six Day Schedule.....	
I. Introduction to the Course.....	
2. Setting the Context of the Course: Commodity Security	Error! Bookmark not defined.
3. Introduction to Health Logistics Systems.....	
4. Logistics Management Information Systems	
5. Health Commodity Storage and Distribution	
6. Assessing Stock Status	Error! Bookmark not defined.
7. Maximum-Minimum Inventory Control Systems.....	Error! Bookmark not defined.
8. Review Game	Error! Bookmark not defined.
Mid-course evaluation	Error! Bookmark not defined.

9. Assessing Stock Status at Any Level **Error! Bookmark not defined.**

10. Analyzing LMIS Data.....

11. Field Visit.....

12. Quantification of Health Commodities

13. Procurement

14. Monitoring and Evaluation

15. Commodity Security Vignettes and Review of CS

16. Course Conclusion.....

Course Evaluation.....

Appendix 3

First Certificate Course Evaluation—October 2012

Please rate your level of satisfaction for the following on a scale of 1 (not at all satisfied) to 5 (very satisfied) by circling a number below:

	Not at All Satisfied		Somewhat Satisfied		Very Satisfied
Course Scale	1	2	3	4	5
Objectives of the course			1*	10	6
Organization of the sessions			2	13	3
Use of Visual Aids			2	9	6
Student Workbook			1	10	7
Small group work			5	7	6
Group size			5	5	7
Level of detail			2	11	4
Pace of the sessions			3	10	4
Length of the course		2	8	8	1
Course administration		1	3	12	3
Overall organization of the course			1	12	5

*The figures in each box represent the numbers of participants giving this ranking for the item

- B. Please check the appropriate column in the chart below to indicate what you believe your skill level is in each of the following activities after completing the course using the following rating scales.

SKILL LEVEL

- 1 = cannot perform this task with the skills I currently possess
 2 = can perform this task with assistance
 3 = can perform this task without assistance

Task	Skill Level		
	1	2	3
1. I can describe the purpose of a logistics system, list the major activities of logistics management, and describe the relationships among these activities.		7	11
2. I can identify the basic elements of a logistics management information system (LMIS), analyze a LMIS, and make recommendations for improving a LMIS.		4	15
3. I can list the basic guidelines for proper storage to ensure health commodity quality.		9	10
4. I can assess health commodity stock status at a local and national level.		6	13
5. I can determine appropriate order quantities using maximum-minimum inventory control procedures.	1	9	9
6. I can define quantification and describe the steps in the quantification process.		10	9
7. I can describe a variety of methods for preparing a short-term forecast of health commodity needs.		13	6
8. I can describe logistics system performance indicators, as well as monitoring and evaluation tools that can be used to measure the performance of logistics systems		10	9
9. I can describe the concept of commodity security and the role of logistics in assuring commodity security.		9	10
10. I can identify the key steps in the international competitive bidding process	4	10	5
11. I can describe the importance of contract performance monitoring	1	9	9
12. I can apply basic logistics principles to the management of a variety of health commodities, including contraceptives, Essential Drugs, and TB and malaria drugs.	2	7	10

Appendix 4

HSA Faculty and Leadership Survey Questionnaire

Introduction and Informed Consent:

Assalam-o-Alaikum. Thank you for taking time to take this survey for us. Your responses will help us evaluate the (Certificate and Three Credit) courses that the Health Services Academy did in conjunction with JSI. The goal was for HSA to offer regular supply chain courses to its students to strengthen the capacity of Pakistan's public health system. So far three courses have been conducted by HSA.

This will take about 30-40 minutes to complete. All your answers will be kept strictly confidential and will not affect your work or your position in any way. The information from the survey will be analyzed as a whole. Please share with us your best knowledge on the following questions.

1. How would you describe your experience with the SCM Courses conducted by HSA?
 - How was the teaching of this course different from teaching other courses you taught?
 - How was the Duration of the course?
2. What was the general response of the students to the supply chain courses?
3. Are you aware of any public health logistics courses scheduled for the future at HSA?
4. If No, what institutional support is needed to provide further courses?
5. Can HSA handle these issues on their own?
6. Who can Help HSA overcome these constraints?
7. Is there any funding budgeted to provide future supply chain courses? If No, Why?
8. What institutional support exists for providing further courses?
9. In your opinion can HSA take a lead role in helping other educational institutions provide supply chain courses?
10. In your opinion which course should HSA be offering more frequently and why?

11. Any changes you'd make to either course?
12. Is there anything else you'd like to tell us about these courses or your experience with them?
13. If you had been a regular faculty here would you stayed with HSA?

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John Snow, Inc.

1616 Fort Myer Drive, 16th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: askdeliver@jsi.com

Internet: deliver.jsi.com