

REPORT

E-ITEC COURSE ON SUPPLY CHAIN MANAGEMENT

17th – 21st October 2022



SUPPORTED BY
INDIAN TECHNICAL AND ECONOMIC COOPERATION,
MINISTRY OF EXTERNAL AFFAIRS, GOVERNMENT OF INDIA



ORGANISED BY
DEPARTMENT OF COMMUNITY MEDICINE AND SCHOOL OF PUBLIC HEALTH,
POST GRADUATE INSTITUTE OF MEDICAL EDUCATION
AND RESEARCH, CHANDIGARH



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EXECUTIVE SUMMARY

Supply chain management is the management of the flow of goods and services and includes all processes that transform raw materials into final products. The supply chain process is the essential link for all programs and services offered by a hospital, and hence any improvement in managing the supply chain can positively impact bottom line profitability of any hospital's operations.

Healthcare Supply Chain Management comprises several processes, involvement of different team members, movement of pharmaceutical drugs, medical devices, and other essential items. The role of healthcare supply chain management is to identify and remove bottlenecks, and other emerging issues arising in the entire supply chain while simultaneously getting control over pointless spending. Health care facilities can respond quickly to any events like natural calamities and pandemics when supply chain activities are managed well by well-trained staff.

In this context, a 5 day online 'e-course on Supply Chain Management' under International Public Health Management Development Program (IPHMDP) was conceptualized in the year 2022 by Department of Community Medicine and School of Public Health with support from Indian Technical and Economic Corporation (ITEC) under Ministry of External Affairs, Government of India. The course aimed at enhancing the supply chain management and procurement related skills of senior procurement officers, hospital managers, senior administrative officers and store managers from 13 countries. The course was scheduled from 17th October 2022 to 21st October 2022.

This course is unique in the country being conducted for foreign Ministry of Health officials in order to enhance the knowledge and skills in the area of Supply and procurement.

The course was fully sponsored by Ministry of External Affairs, Government of India and a total of 28 participants from several countries across the globe participated.

Program description

In healthcare sector, supply chain management gains much importance because of logistics, pharmaceutical products and patient satisfaction to improve service quality. Hospital supply chain management has become an important topic these days in the medical field, and its importance seems to be growing exponentially. Most hospitals are faced with very tight budgets, and that means that in addition to being as cost-effective in every area as possible, that many hospitals are forced to take a hard look at cost-cutting measures throughout their organizations. Improving healthcare quality in a public or private sector depends directly on its supply chain management efficiency.

This comprehensive course covered several topics related to supply chain and procurement.

GOAL

To improve the skills and competencies required in managing the supply chain system to build capacity within the principles of supply chain to illustrate context specific case studies for overall competencies development within and outside to equip participants with various strategies and techniques for effective supply chain system.

Course Objectives

- To build capacity of public health professionals within the principles of material management.
- To illustrate with relevant context specific case studies ,how supply chain can improve overall competitiveness within and outside the organization.
- To equip participants with various strategies and techniques for effective supply chain management.

PARTICIPANTS OF SUPPLY CHAIN MANAGEMENT COURSE

Program Audience

This course is designed for Procurement officials, supply chain managers, Administrative officials who are organizational leaders working in the domain of supply and procurement and who are responsible for improving the efficiency and effectiveness of their organization. In the current program, a total of 28 participants participated to enhance their skills in supply chain management.



Cohort of supply chain management course

Resource faculty

The program faculties are eminent experts from premier government medical institutes of India.



Resource persons of supply chain management course

TEACHING METHODOLOGY

Teaching Methodology

The teaching was done through a multi-pronged adult learning pedagogy comprising live lectures, reading materials, assignments, and interactive sessions. Besides this, the participants were engaged with their peers in the discussion forums and undertook action plan work during the program in order to demonstrate their learning.



Program Contents

- Topic 1- Demand generation & Assessment: Guesswork or Science?
- Topic 2- Specifications: What we want?
- Topic 3- Purchase Process: Common pitfalls
- Topic 4- Receipt & inspection: Look carefully
- Topic 5- Inventory management and equipment utilization
- Topic 6- Condemnation: Final destination
- Topic 7- Legal and Ethical issues in Procurement: Knowledge is safety
- Topic 8- Quality Assurance based procurement: A new approach
- Topic 9- What an Auditor looks for?

Program Duration and Venue

Duration: The duration of program was 5 days (17th October 2022 to 21st October 2022)

Venue: Online on E learning for Public Health platform

SCHEDULE

DATE	TIME	ACTIVITY / TOPICS	RESOURCE PERSON
Day 1 17.10.22	1:30-1:40 PM	Registration	PGDMER team
	1:40-1:50 PM	Welcome and introduction to the course	Dr. Sonu Goel
	1:50-2:00 PM	Pre test	PGDMER Team
	2:00-3:15 PM	Demand generation & Assessment: Guesswork or Science?	Dr. Pankaj Arora
	3:15-3:30 PM	Mobility break	
	3:30-4:45 PM	Specifications: What we want?	Dr. Shweta Talati
	4:45-5:00 PM	Feedback cum social media break	
Day 2 18.10.22	2:00-3:15 PM	Purchase Process: Common pitfalls	Dr. Vipin Koushal
	3:15-3:30 PM	Mobility break	
	3:30-4:45 PM	Receipt & inspection: Look carefully	Dr Pankaj Arora
	4:45-5:00 PM	Feedback cum social media break	
Day 3 19.10.22	2:00-3:15 PM	Quality Assurance based procurement: A new approach	Dr. Sonu Goel
	3:15-3:30 PM	Mobility break	
	3:30-4:45 PM	Legal and Ethical issues in Procurement: Knowledge is safety	Dr. Sidharth Satpathy
	4:45-5:00 PM	Feedback cum social media break	
Day 4 20.10.22	2:00-3:15 PM	Condemnation: Final destination	Dr. Navneet Dhalwal
	3:15-3:30 PM	Mobility break	
	3:30-4:45 PM	Inventory management and equipment utilization	Dr. Manjushree Sharma
	4:45-5:00 PM	Feedback cum testimonial break	
Day 5 21.10.22	2:00-3:15 PM	What an Auditor looks for?	Mr. Kumar Abhay
	3:15-3:30 PM	Mobility break	
	3:30-4:30 PM	Action plan preparation	Participants
	4:30-4:40 PM	Feedback cum testimonial break	
	4:40-4:55 PM	Post test	PGDMER team
	4:55-5:15 PM	Certificate distribution ceremony	Guest of honor
	5:15-5:20 PM	Vote of thanks	PGDMER team

PROGRAM PROCEEDINGS

Day 1

Introductory session

The introductory session started with registration of the participants. The program director Dr.Sonu Goel from PGIMER, Chandigarh, India welcomed the participants from different countries. He gave quick overview of the program to the participants and expected program outcomes. This was followed by a group photograph while the participants greeted and introduced themselves. This was followed by a pre-test to assess the knowledge of the participants.



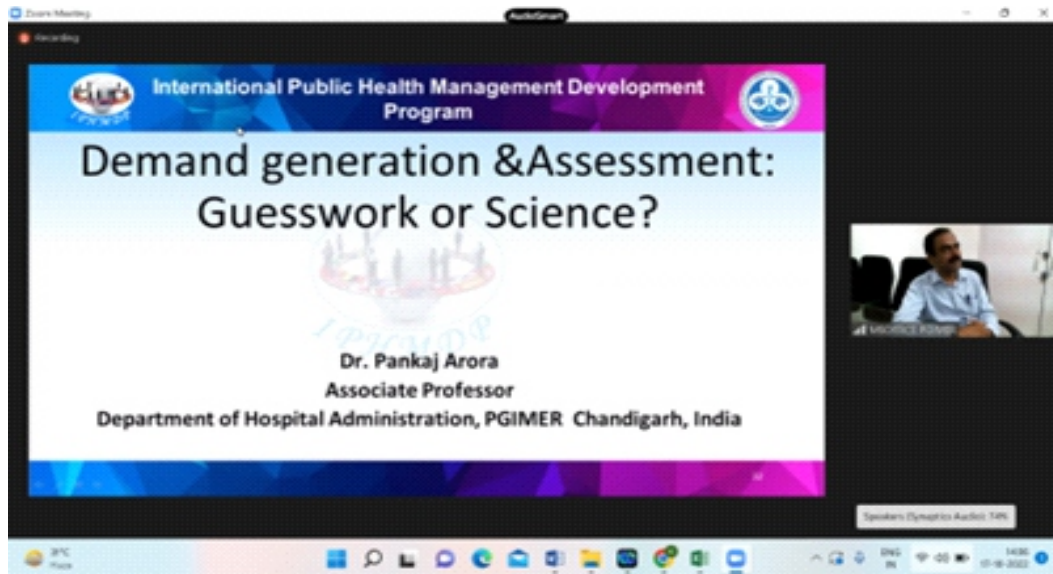
Dr.Sonu Goel welcoming all the participants and giving an overview of the course

Session 1 -Demand Generation & Assessment: Guesswork or Science?

Dr. Pankaj Arora

The first session was covered by Dr Pankaj Arora in which he explained the procurement cycle. While underlining the importance of condemnation he discussed on the topics of demand and specifications. The speaker gave examples from his own experiences of procurement in his work area . The various forecasting methods were explained with real life examples. The major types of qualitative and quantitative forecasting methods were taught. The advantages and disadvantages of the forecasting methods were also discussed and he showed how one method complements the others as no method is fool proof. Each method of demand forecasting has its own set of challenges and a lot depends on the person or people dealing with demand forecasting.

The lecture was followed by group assignment on demand forecasting with an example.



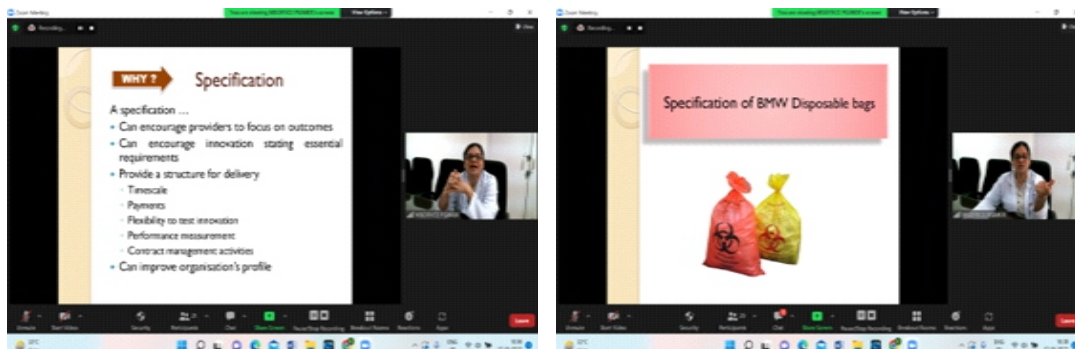
Dr.Pankaj Arora taking his session on Demand forecasting

Session 2-Specifications: What we want?

Dr. Shweta Talati

In the next session, Dr. Shweta Talati started her session with a quick group assignment to the participants. All the participants completed the activity very enthusiastically. The speaker then spoke on the importance of specifying ones needs and the various problems that might arise if we over specify or under specify. She gave the examples of Sandwich maker and through this example she highlighted the need for specifications. Good specification writing process was also explained with a flow chart. She mentioned about pre-bid as a way to get as much specifications as possible.

Examples of bed sheets, Auto analyser, plasma steriliser, evacuated tubes were discussed in details make the participants understand the importance of specifications.



Dr.Shewta Talati conducting lecture on specifications with examples

Day 2

Day 2

The second day began by a brief recap of the previous days learning by the participants. This was followed technical sessions.

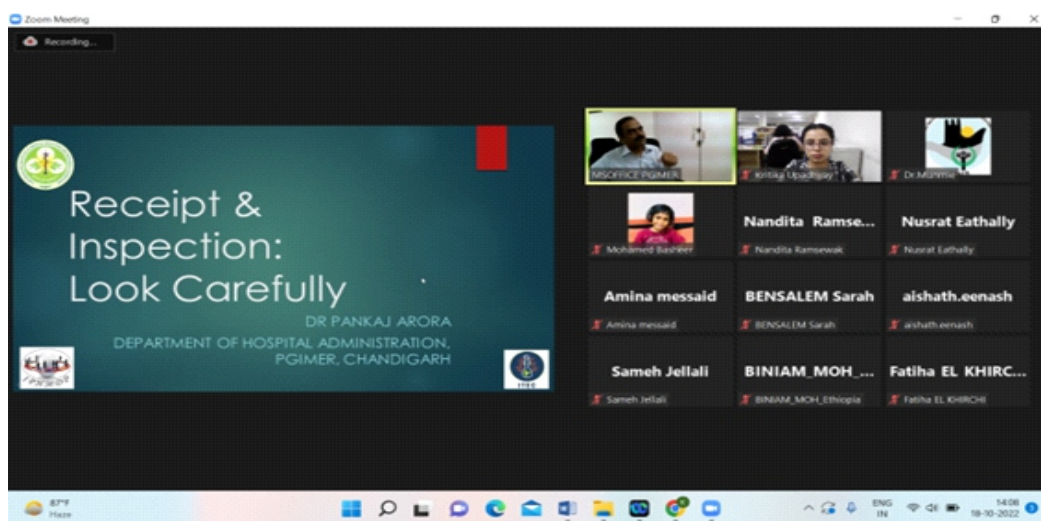
Session 1 - Receipt & inspection: Look carefully

Dr. Pankaj Arora

This session started with discussion on the functions of receipt and the process of receiving materials that are of different qualities as well ways to avoid pilferage. Dr.Pankaj outlined the need to ensure right material and right quantity during receipt. He also described that most of the times the receipt and inspection area is not planned in several departments and it's a huge bottleneck. He urged all the participants to plan place for receipt and inspection. All the steps of receipt and inspection were then explained. The pre-receipt inspection scenarios were discussed with examples like different finished product and raw materials and along with post receipt inspection.

Dr.Pankaj also elaborated on the several ways of carrying out inspection along with explaining that random inspection can also be done when the order quantity is large. Some of the main ways of carrying out inspection which were discussed were-virtual inspection, inspection of documents, in-house inspection and inspection through external sources.

The session ended with an assignment on a real life problem of receipt and inspection and the participants gave their inputs regarding the situation.



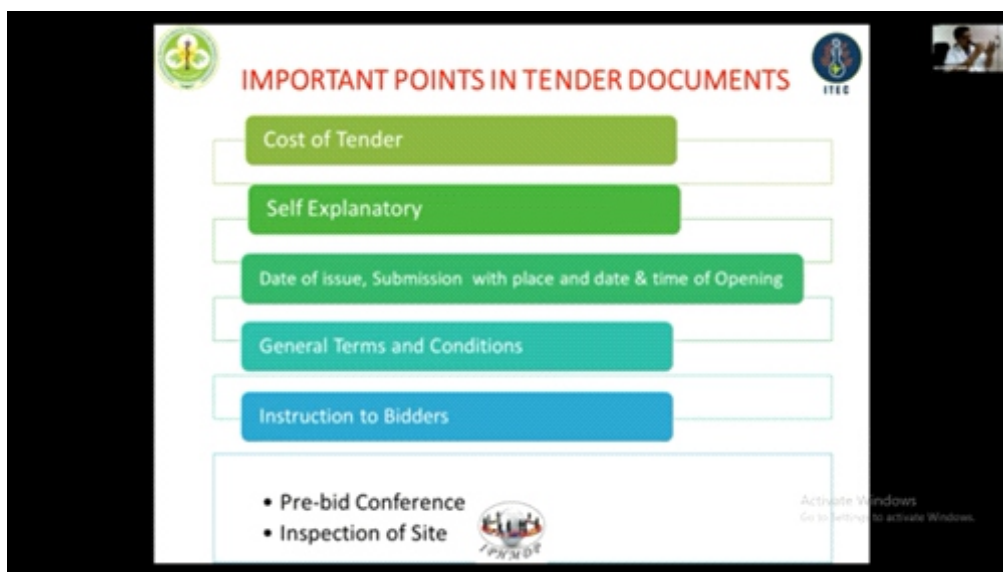
Dr.Pankaj arora during his lecture on Receipt and inspection process

Session 2- Tendering Process: Common pitfalls

Dr. Vipin Koushal

The first session of the day began by explaining the tendering process by Dr. Vipin Koushal. He explained the need to plan procurement beforehand. The steps involved in tendering was followed by demonstration on the importance of money and time in the process. The speaker also explained about cost of tender, date of issue, general terms and conditions and instructions to bidders.

Dr. Koushal showed how purchase of goods is done by obtaining bids and the different types of bids were also discussed. The very important topic of scrapping of tender was also taught and he discussed at length the reasons wherein scrapping of tender can be done with help of suitable examples. His take home message included a summary of the entire procurement process. Towards the end of the session Dr. Koushal interacted with the participants regarding the problems in procurement process that they are facing in their country and discussed suitable ways to overcome those problems.



Dr. Vipin Koushal during his session on purchase process

Day 3

Session 1 - Quality Assurance based procurement: A new approach

Dr.Sonu Goel

The first session of the day was conducted by Dr.Sonu Goel on Quality Assurance based procurement: A new approach. He shared his experiences as linen manager and logistics manager with the participants to drive home the fact that quality management in procurement is necessary. He explained quality assurance is important in every step of supply chain management. He defined quality assurance as a part of overall quality management. And he highlighted that quality assurance provides confidence that the products are of quality required for intended use.

Further Dr.Goel also emphasized the need to think of quality purchase taking consumer demand into consideration. The 10 determinants of Healthcare product quality- quality control, raw materials, manufacturing process, packing and labelling, regulatory approval, transportation and distribution and storage were dealt at length. The quality assurance framework for procurement was taught with examples. Internal and external expending were discussed in details and inputs of participants sought. Remedial action was taught with examples and the responses of the participants were then discussed upon.



Dr.Sonu Goel session on Quality Assurance in Procurement

Session 2- Legal and Ethical issues in Procurement: Knowledge is safety

Dr. Sidharth Satpathy

This session was focused on legal and ethical issues in procurement. Taking example of both India and Maldives ;the speaker introduced the participants to definitions of laws ,rules and regulations. Dr. Satpathy explained in details about the need for knowledge of legal and ethical issues in procurement. The five rights of public procurement which are- correct rules and regulations, right items and specifications, right quantity and quality, right payment ad right documentation were also explained. Several acts like the Drugs and Cosmetics act ,Narcotic and psychotropic substance act which are currently applicable in India were also discussed. The CVC guidelines 2007 that are in place in India was also discussed. The speaker also explained the ethical guidelines for store personnel. Towards the end a case study on equipment procurement was discussed with the participants and questions from participants were taken up and discussed in details.



The screenshot shows a Zoom meeting interface. At the top, there are several participant thumbnails, including Prof. Sidharth Satpathy, Amina messaid, and Nicole Liburd. The main content area displays a slide with the following information:

Topic: Legal and Ethical issues in Procurement: Knowledge is safety

Dr. Sidharth Satpathy
MBBS; MD(PSM) & MHA (AIIMS)

- Professor & Head, of the Dept. of Hospital Administration at AIIMS, New Delhi.
- Rich experience of academics, research and hospital operations of more than 25 years at AIIMS, New Delhi in various capacities.
- Author of several text books on Hospital Planning & Management, Bio-medical waste management and published more than 55 scientific articles in peer reviewed international and national journals.
- Awarded International Fellowship to UAB, Birmingham, Alabama, US and Has served as Member of Technical Committee (2005-2009) and Accreditation Committee of NABH from 2009-2011. Presently NABH Board member nominated by Director AIIMS, New Delhi.

The slide also features a portrait of Dr. Satpathy and a logo on the right side. The Zoom interface includes a recording indicator, a toolbar with options like Mute, Start Video, Security, Participants, Chat, Share Screen, and a system tray at the bottom showing the time as 15:20 on 19-10-2022.

Dr.Sidharth Satpathy presenting his session

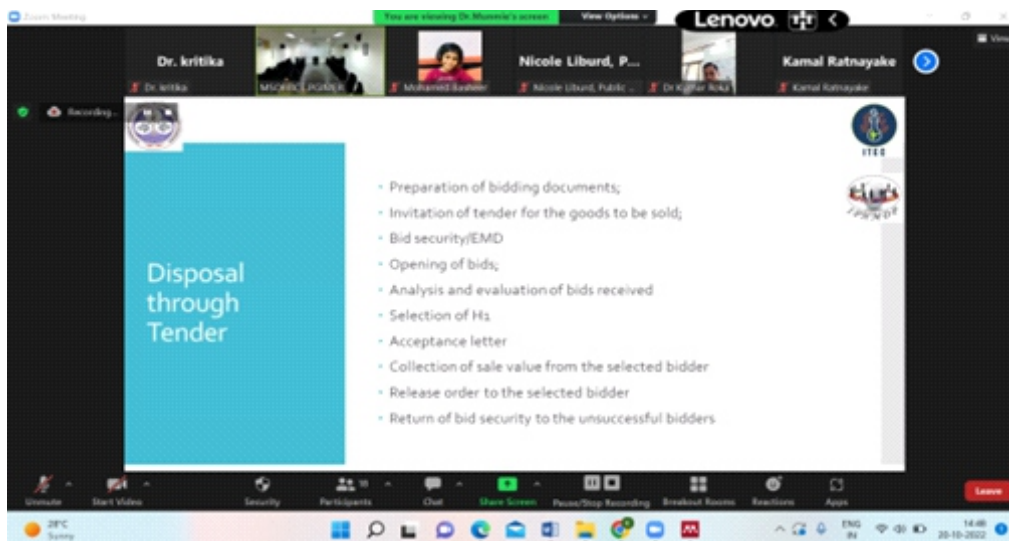
Day 4

Session 1 - Condemnation: Final destination

Dr. Navneet Dhaliwal

Dr. Navneet started her session by explaining the need for condemnation with special focus on equipment condemnation. The several reasons for condemnation like –shelf life over, usage over, serviceability over, change in technology, becoming hazardous or having surplus were outlined. Dr. Navneet dealt at length on the criteria of condemnation like the equipment being non-functional and beyond repair, non-functional and obsolete, functional and hazardous etc. The process for preparation of condemnation was discussed step by step. The identification step, followed by completion of the Performa, examination by concerned section and condemnation certificate issue and finally safe storage of material for condemnation. The authorized person for condemnation along with committee constitution plus the members of the committee were also discussed.

Thereafter the entire process of condemnation was discussed at length starting from fixing date, time and space for condemnation, type of item for condemnation, physical evaluation of items, creation of separate lots, entry into records, value of stock to finance division. The disposal mechanisms like buy back, tendering, local disposal, public auction, transfer, salvage of parts was elaborated upon. The lecture was followed by giving assignment for designing a condemnation certificate and on spelling out terms and conditions for e-waste disposal to the participants.



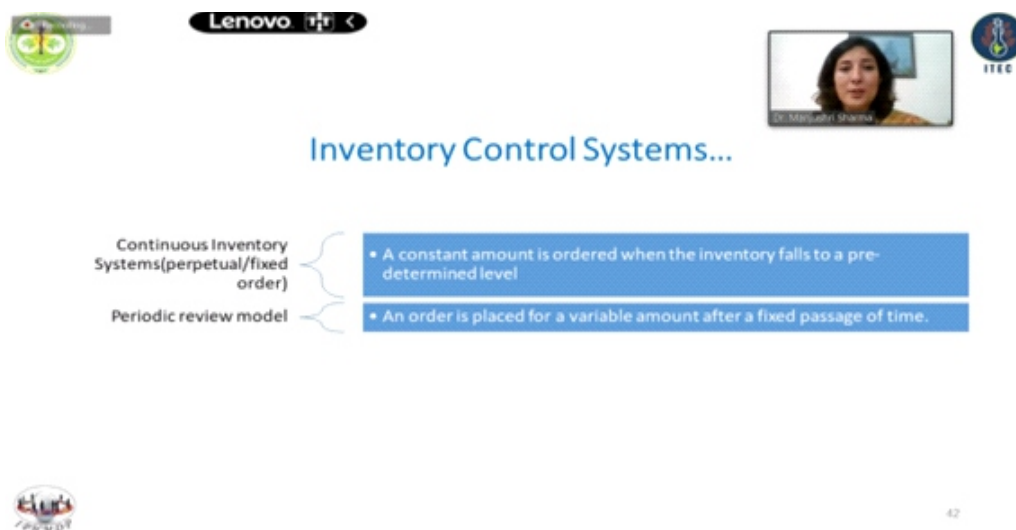
Dr. Navneet Dhaliwal explaining the condemnation process in her session

Session 2- Inventory management and equipment utilization

Dr. Manjushree Sharma

Dr. Manjushree covered in details about healthcare inventory ,its components and the items constituting it. The issues of hospital inventory management like tricky trade off between inventory costs and level of required service; management of surgical supplies and instruments with due consideration to surgeons request material and location related inventory management were also explained. The speaker elaborated regarding decision making approaches in hospital inventories like inventory oriented models and supply chain oriented models. The important terms like order cost, inventory carrying cost, shortage cost ,dead time, lead time ,consumption stock and safety stock were explained to the participants. The formula for economic order quantity was explained along with ABC analysis technique ,its definition and the Pareto principle was reviewed. VED classification was explained with examples of paracetamol tablets and adrenaline injection. The ideal method of ABC-VED matrix analysis was then explained to the participants.

Next equipment utilization, dimensions of equipment planning , selection procurement, training of personal and utilization audit were taught along with essential steps in planning selection and procurement of equipment. The concept of equipment audit need in terms of total cost of ownership concepts and utilization coefficient was also taught. The session ended with assignment on inventory management .



The screenshot shows a presentation slide with the following content:

- Top left: A small green circular logo.
- Top center: A black bar with the text "Lenovo" and a small icon.
- Top right: A video feed of Dr. Manjushree Sharma, with a small circular logo to its right.
- Center: The title "Inventory Control Systems..." in blue text.
- Bottom left: Two text labels: "Continuous Inventory Systems(perpetual/fixed order)" and "Periodic review model".
- Bottom right: A blue box containing two bullet points:
 - A constant amount is ordered when the inventory falls to a pre-determined level
 - An order is placed for a variable amount after a fixed passage of time.
- Bottom left: A small circular logo.
- Bottom right: The number "42".

Dr.Manjushree Sharma taking session on inventory management

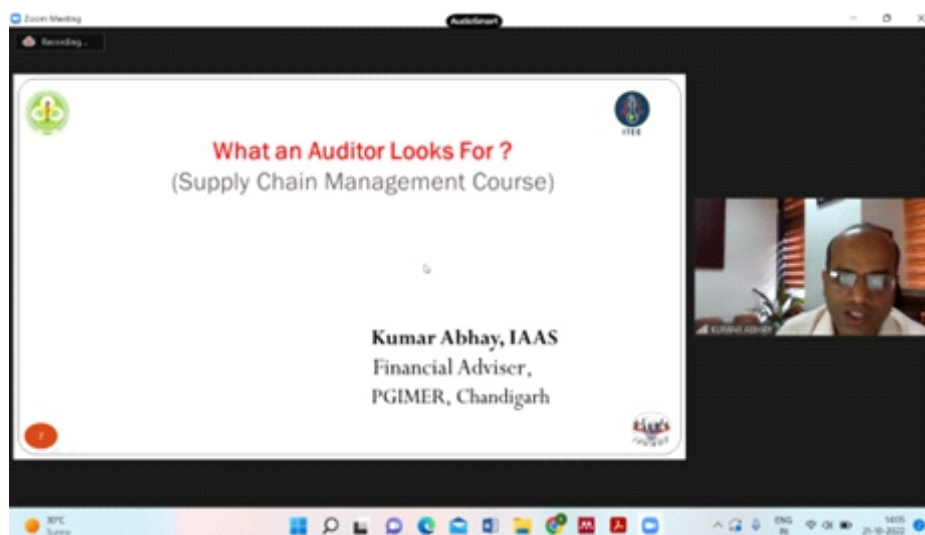
Day 5

The penultimate day of the entire course started with recap of the previous day sessions by the participants.

Session 1 -What an Auditor looks for?

Mr.Kumar Abhay

In this session Mr. Kumar Abhay spoke about the need for audit and its relevance to procurement as this involves public money. He told why audit is needed because it gives motivation and reasons to work. The purpose of audit was explained next and explained what an auditor looks for is deviation. Then deviation from accepted standards and violations of principles of legality ,efficiency, effectiveness and economy of financial management was discussed and told that it leads to early identification of problems and helps take corrective action to prevent breaches. He explained the definition of audit and told that nowadays audit is not limited to financial and accounting only instead it has become an independent act to measure overall performance vis a vis its mandate. The differences between internal and external audit were discussed and advantages and disadvantages were also explained. He explained that most of the audit are external due to their advantage.. The principles of financial propriety was explained and he emphasised on the need to stay vigilant a since we are dealing with public money. Audit process with planning execution ,reporting and follow up with action taken and remote location audit was told which can be done electronically.

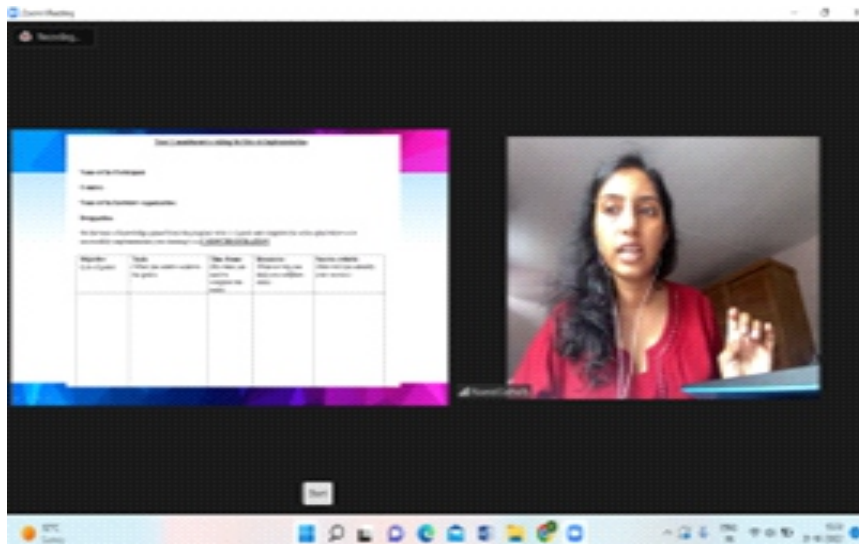


Mr.Kumar Abhay explaining Audit during his session

Action plan development

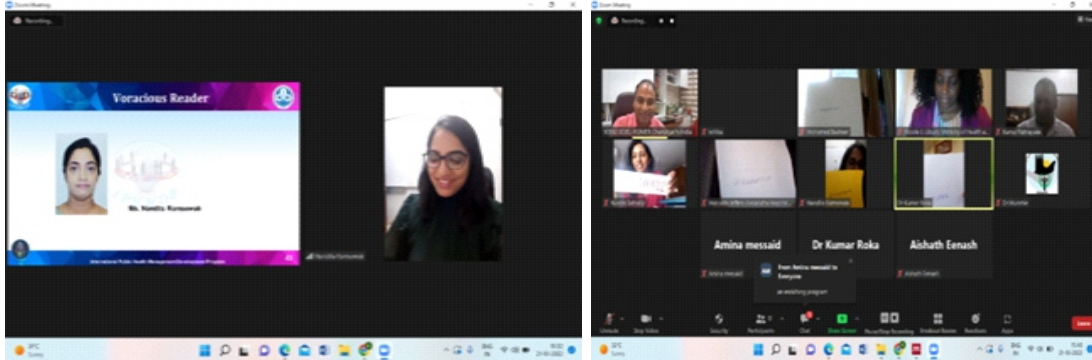
The session was followed by development of action plan by the participants in which they laid down their idea to implement the learnings in their settings. Dr.Sonu Goel facilitated the action plan preparation. He gave some examples to describe the action plan preparation. The first participant to discuss the action plan was Ms. Nusrat from Mauritius. She developed a draft action plan on specifications knowledge development of hospital staff for procurement. Next one to discuss the action plan was Dr.Kumar Roka from Nepal. He explained that his action plan was –on capacity building of hospital staff for procurement. Next participant from West Indies Mr.Malcome ,shared the action plan on to improve equipment utilization by involving hospital administration

Another participant Mr. Kamal shared his action plan to develop SOP for quality control measures in his hospital.



Course participants discussing their Action plan with experts

This was followed by post-test in which the learning's of the participants was tested. And finally the valedictory ceremony with distribution of certificates to all the successful participants was done. Contest winners for Voracious reader- Ms Nanadita and most participatory participant –Dr.Kumar Roka were also given certificates.



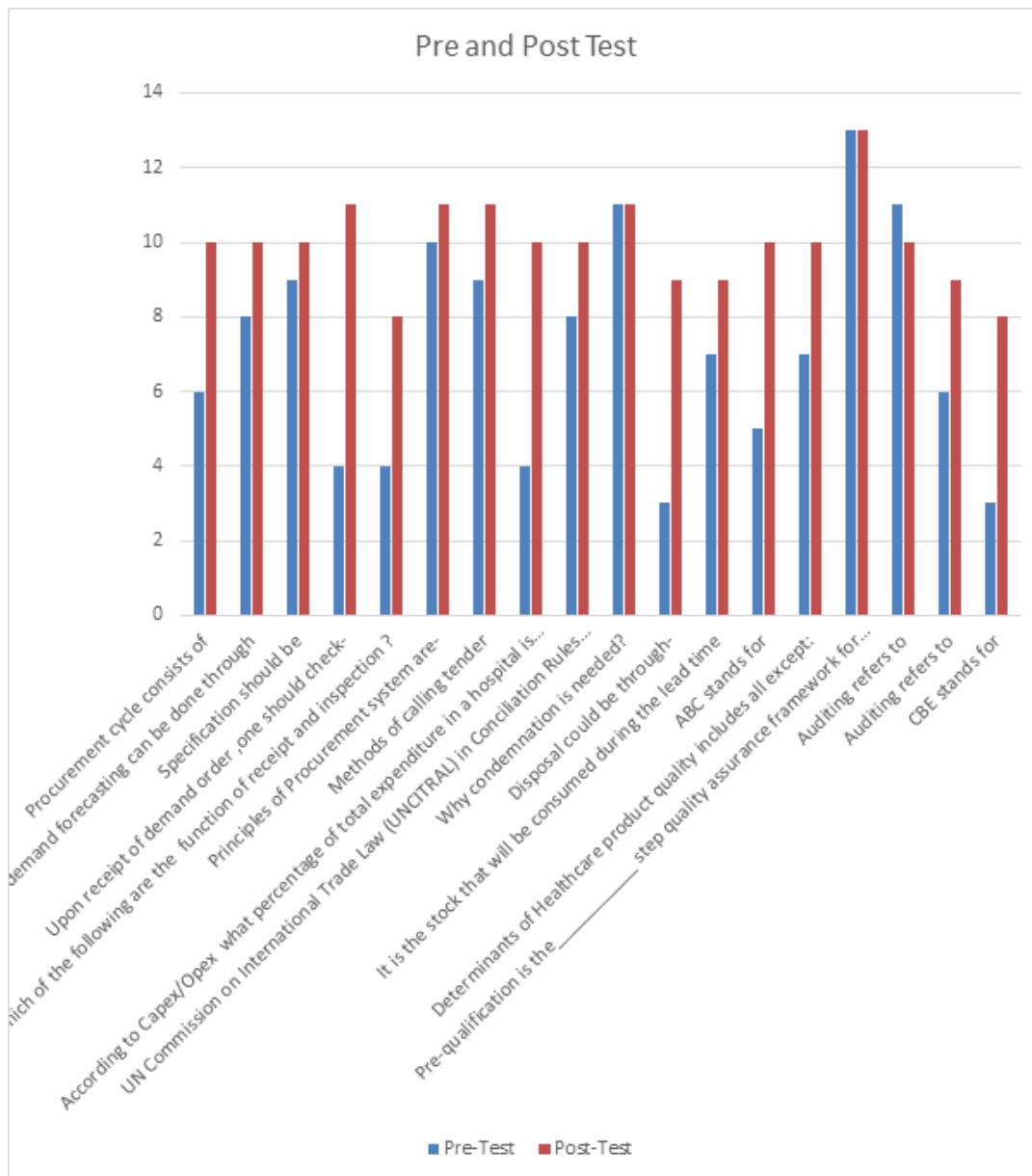
Participants during their feedback session for the course

Participants also shared their feedback by giving testimonials and shared that they liked all the lessons taught under the course and as everyone works in procurement it was very helpful for them. They expressed their gratitude towards ITEC for giving them the opportunity to learn and mentioned that they will look forward to more of such courses on supply chain management.

Dr,Kritika offered the vote of thanks while informing the participants about several upcoming course and asked them to apply for the same.

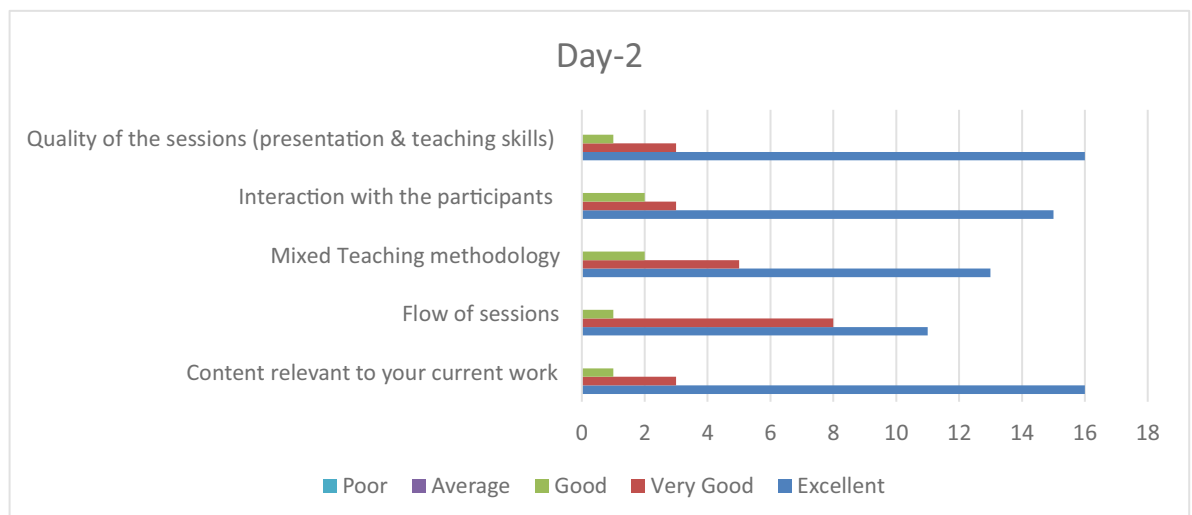
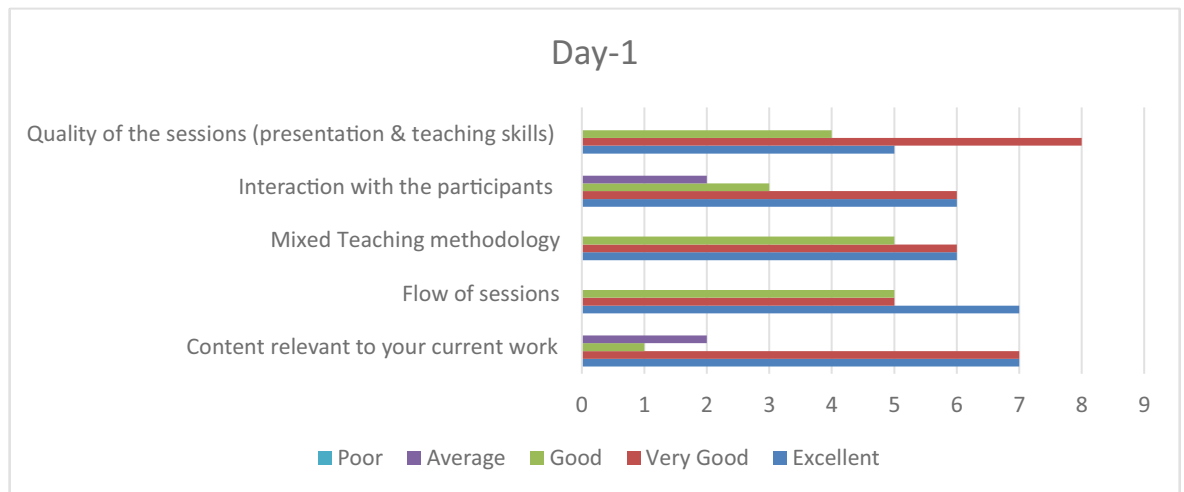
PROGRAM ASSESSMENT

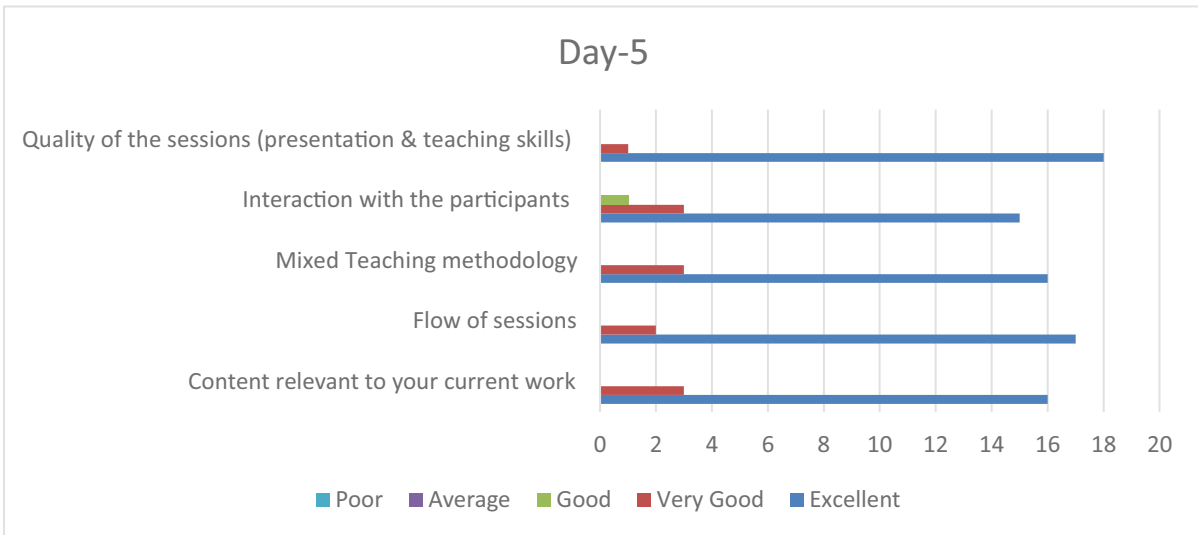
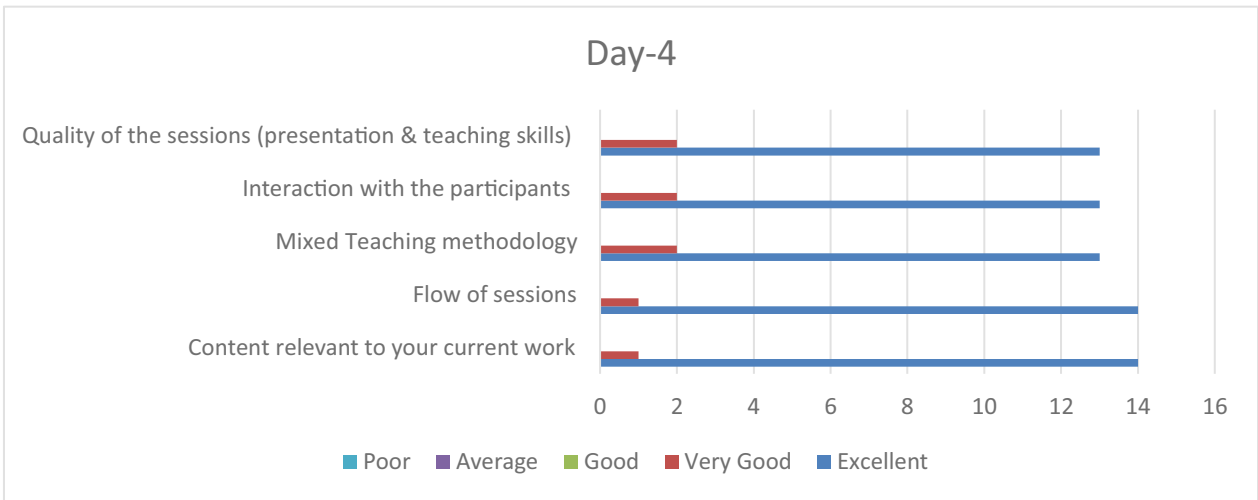
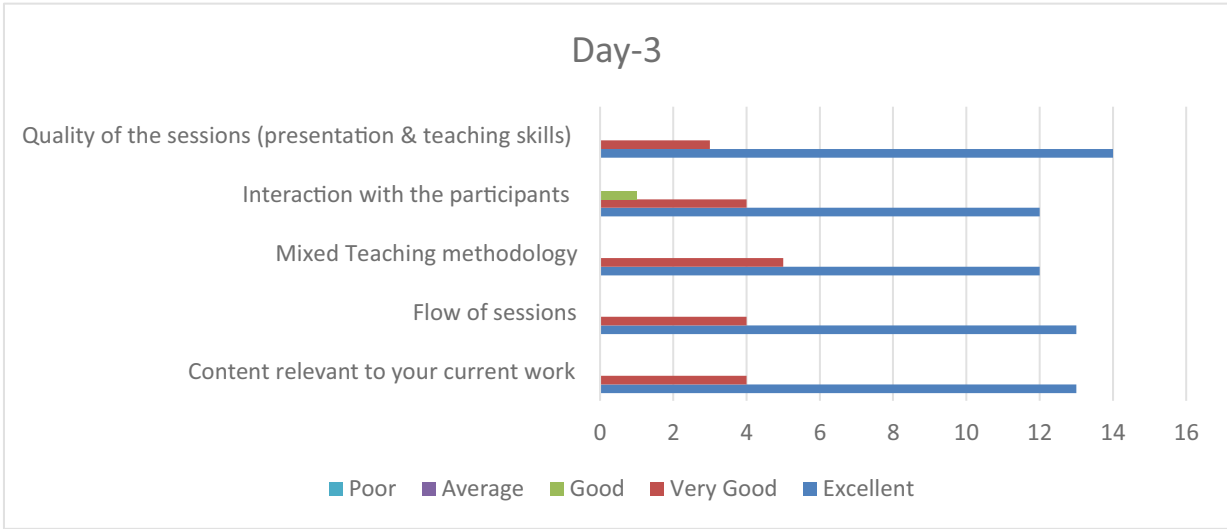
The pre and post test scores of the course participants were used for assessment of the course. It was found that majority of the participants had significantly improved their scores after attending all the course modules.



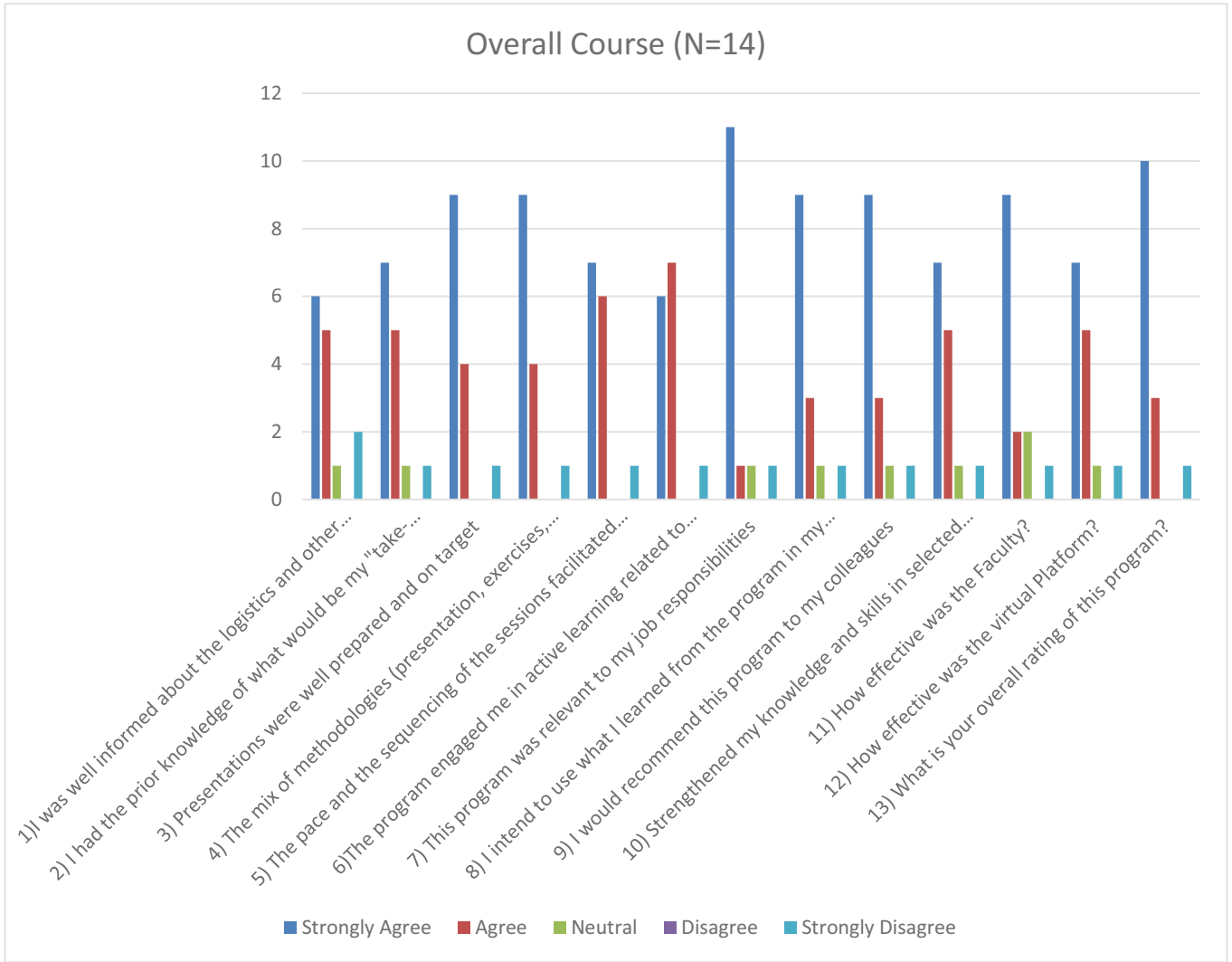
FEEDBACK

The course feedback received showed majority of the participants strongly agreed that the presentations, teaching pedagogy and learning were very relevant. They also agreed that the facilitators of the course were well prepared and the online platform was user friendly.





OVERALL FEEDBACK



ABOUT US

Post Graduate Institute of Medical Education & Research, Chandigarh

Who We Are

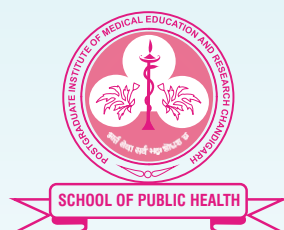
The Postgraduate Institute of Medical Education and Research (PGIMER) is based in Chandigarh (city beautiful in North India) and was established in 1962 by then Prime Minister of India, Pt. Jawaharlal Nehru. It was declared as an Institute of National Importance by an Act of Parliament of India on 1st April 1967 and is currently an autonomous body functioning directly under the Ministry of Health and Family Welfare, Government of India. PGIMER has almost all specialties and super-specialties departments. The Department of Community Medicine was instituted in 1977 with the purpose of developing effective models of health service delivery for rural communities and for providing community health orientation to public health professionals. To address emerging challenges in public health education and research, the Department of Community Medicine was upgraded to School of Public Health (SPH) in the Tenth Five Year Plan of India (2002-06).

What We Do

Department of Community Medicine and School of Public Health conduct post-graduate teaching programmes and short-term training courses on various public health issues. Besides, we are also involved in several research projects in collaboration with national and international organizations (like DBT, ICMR, WHO, UNICEF, UNFPA, DFID, MOH & FW, and MOE&F etc.) and state governments. We also provide consultancy services to state and central health services on public health matters and national programs/projects. Each year nearly 45 training programs are conducted with an average attendance of 30 participants per course. We also deliver population based health services to approximately 80,000 population in rural, urban and slum communities of Haryana, Punjab and Chandigarh. SPH has developed various public health models which have been successfully scaled and replicated across country.

What We Offer

We offer regular Doctor of Philosophy (PhD), Doctor in Medicine (MD), Post Graduate Diploma in Public Health Management (PGDPHM), and Masters of Public Health (MPH) along with various short-term courses in areas of epidemiology, health management, health promotion, communicable and non-communicable diseases.



Department of Community Medicine and School of Public Health,
Post Graduate Institute of Medical Education and Research, Chandigarh (India)

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