

‘Workforce excellence is essential for sustainable health supply chains’

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Comparing the Cost Effectiveness of Pre-Service and In-Service Training

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Summary

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- Overview
- Introduction
- Methods
- Results
- Conclusion



Overview of Supply Chain

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- 2007 Pharmaceutical Logistics Master Plan (PLMP).
- 2007 Establishment of Pharmaceuticals Fund and Supply agency (PFSA) – autonomous SC agency
- 2008 Development of a single, integrated supply chain for all programs: Integrated Pharmaceutical Logistics System (IPLS).
- 2009 Part of IPLS was a standard curriculum for facility pharmacy staff (practical, skills based including use of various forms and tools).

Introduction

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- Main training modality has been In-service training (IST):
>12,000 pharmacy staff trained
- We know that all IST trainees will implement IPLS right after the training, but it is expensive (travel, per diems, opportunity cost)
- Pre Service Training (PST) is cheaper, but it is only cost-effective if trainees end up working in IPLS
- As yet, there is no data to compare the cost effectiveness of PST and IST in Ethiopia.
- The main objective of this study is to compare the cost effectiveness of the two training modalities.

Method

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- Pharmacy students from Mekelle and Addis Ababa universities received IPLS training in June 2013.
- Curriculum was identical to that given in IST, using same cadre of trainers.
- A year later, students answered a questionnaire related to their current positions, degree & areas of involvement in the supply chain, and how they rated the training.
- The average cost per trainee of IST and PST was calculated and compared

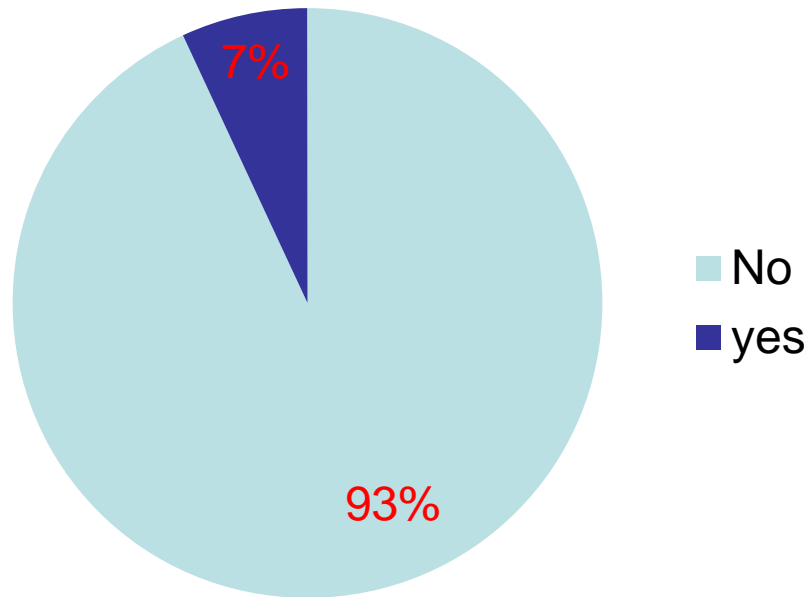
Results and Discussion

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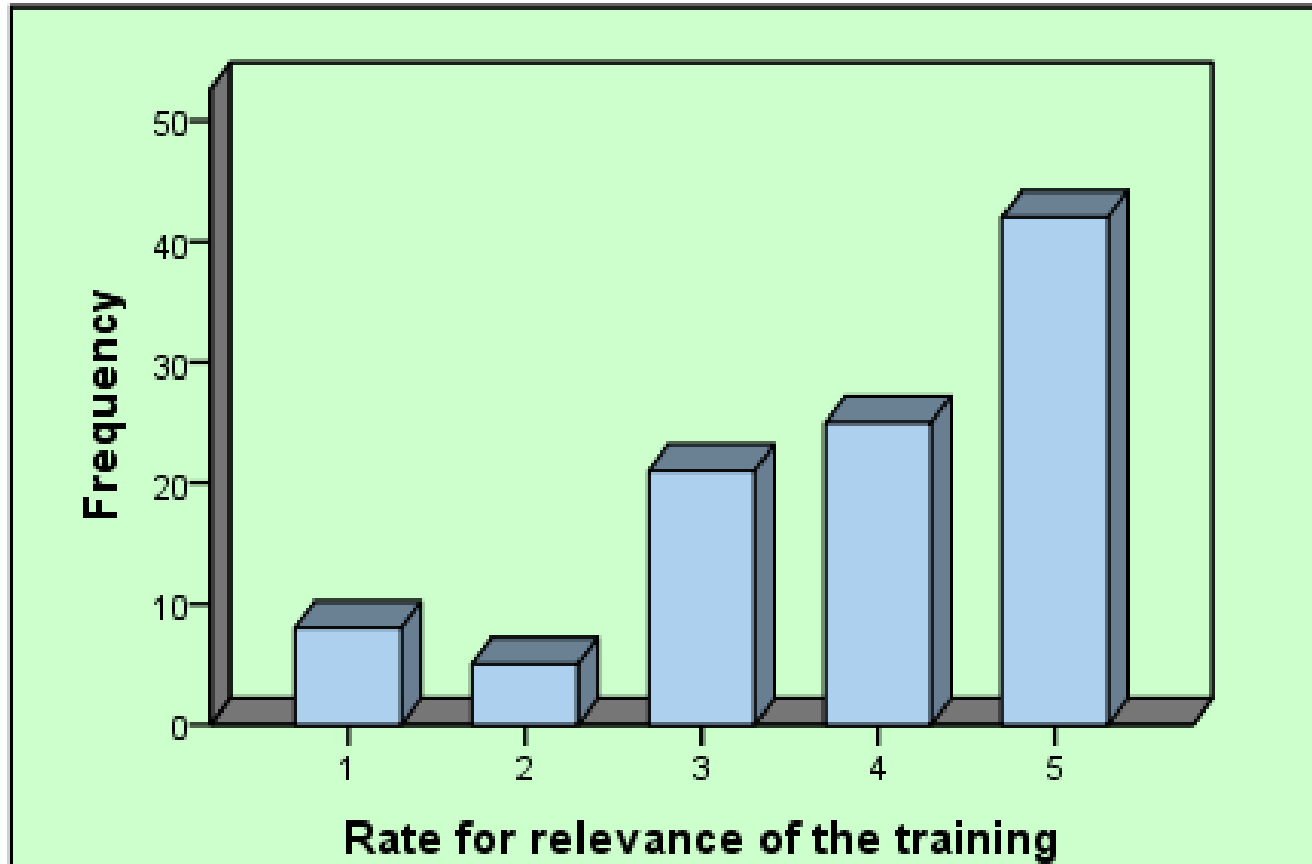
- All 172 trainees received a questionnaire, with 58% response rate (101 trainees).
- 88.1% (89 trainees) of respondents were working in public health sector.
- 91% of those respondents (81 trainees) were working in health facilities (where IPLS is being implemented).

Results: Additional Training

Had Received Additional Training?



Results: Relevance to Work



Graph 1:

5 = helped them a lot to carry out their supply chain tasks
1 = didn't help them at all

Results: Cost



- IST has costs for renting training venue, travel, per diems, & opportunity costs (trainer costs are equal so not included)
- The cost to train one participant using IST is **\$169.00**.
- For PST, the cost per participant is **\$25.50**.
- Discounting for PST trainees not working in public sector within one year, cost increases to: $25.50 \times (101/89) = \mathbf{\$28.94}$
- IST is $\$169/\$28.94 = \mathbf{5.8 \text{ times}}$ more expensive than PST.
- Using our assumptions the breakeven point for PST is about 17% (i.e., if >17% of trainees are hired within one year it is more cost effective than IST)

Lessons Learned

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- While relative training costs and recruitment rates may vary among countries, programs, and over time, the data suggest that providing PST to pharmacy students in Ethiopia is more cost-effective than IST.
- PST reduces costs and also reduces the time health workers must spend away from work for additional training.
- PST can have an important role to play in IPLS training in Ethiopia as a complement to IST

Next Steps

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- Expand PST in IPLS to prospective graduates in five regions of Ethiopia by 2015.
- More study to **measure and compare effectiveness** of both IST and PST

Closing

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- **““I feel more prepared to join the public sector as a pharmacist. The training particularly increased my skill in product management at the store and use of the different recording and reporting forms.”**
- **Feven Zeratsion from Mekelle University – PST Trainee**

Thank you!

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