DISTANCE EDUCATION EXPERIENCES IN CENTRAL AMERICAN COUNTRIES

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Central America

Population 42,000,000

41% Rural
59% Urban

52% poverty
27% extreme poverty

Population < 5 years 5,000,000

Chronic Undernutrition < 5 years
Guatemala 49%
Costa Rica 6%

Overweight in women
Guatemala 40%
Costa Rica 44%

Obesity + undernutrition
Guatemala 19%
Costa Rica 1%
<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
<th>TARGET GROUP</th>
</tr>
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<tbody>
<tr>
<td>Treatment of malnourished children</td>
<td>5 units</td>
<td>Physicians, Nutritionists and Nurses</td>
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<tr>
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<td>4 units</td>
<td>Physicians, Nutritionists and Nurses</td>
</tr>
<tr>
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<td>3 units</td>
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</tr>
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</tr>
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<td>8 units</td>
<td>Nutritionists</td>
</tr>
<tr>
<td>Prevention and Treatment of Diarrhea and Cholera</td>
<td>7 units</td>
<td>Physicians and Nurses</td>
</tr>
<tr>
<td>Nutrition at Healthy Schools</td>
<td>4 units</td>
<td>Teachers</td>
</tr>
<tr>
<td>Social Communication for Health</td>
<td>5 units</td>
<td>Physicians, Nutritionists, Nurses and Health Educators</td>
</tr>
<tr>
<td>“Diploma” on Child Health</td>
<td>12 units</td>
<td>Physicians</td>
</tr>
<tr>
<td>“Diploma” on Women Health</td>
<td>12 units</td>
<td>Physicians and Nurses</td>
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DISTANCE EDUCATION ELEMENTS

DIFFERENT PLACE

TUTORS

DIFFERENT TIME

STUDENTS

MEDIA-BASED INTERRELATIONSHIP

LEARNING ACTIVITIES

• TUTORIALS
• FACE TO FACE MEETINGS
• STUDY CIRCLES
• SELECTED BIBLIOGRAPHY
• AUDIOVISUALS

REINFORCEMENT ACTIVITIES

MASTER MEDIA

• PRINTED
• AUDIOVISUAL
• ELECTRONIC
Steps of Distance Education Courses: elaboration and implementation

1. Design of learning unit
2. Course preparation
3. Course implementation
4. Course evaluation
Steps of Distance Education Courses: elaboration and implementation

1. Design of learning unit
Needs Assessment

- Formulation of Learning Objectives (Coordination Staff)
- Subject Matter Selection and Organization (Subject matter expert)
- Elaboration of Technical Contents (Subject matter experts)
- Creation of Distance Learning Unit (Distance education specialist)
- Review by Technical Committee
- Graphic Design (Graphic designer)
- Pre-Testing
- Corrections
- Technical Committee Final Review
- Reproduction
ELEMENTS OF LEARNING UNITS
(Master Media)

- Title
- Index
- Introduction
- Learning Objectives
- Content
- Assignments
- Self-Evaluation
- Bibliography
- Glossary
- Annex
Steps of Distance Education Courses elaboration and implementation

1. Design of learning unit

2. Course preparation
   - Course accreditation
   - Tutors selection & training
   - Course promotion
   - Register

3. Course implementation
   - Opening ceremony
   - Initial evaluation
Distance Education implementation

- Students receive Learning Unit
- Student studies Learning Unit
- Student solves assignments
- Self-evaluation sheets
- Monthly face-to-face meeting
Steps of Distance Education Courses elaboration and implementation

1. Design of learning unit
   - Course accreditation
   - Tutors selection & training
   - Course promotion
   - Register

2. Course preparation
   - Opening ceremony
   - Initial evaluation

3. Course implementation
   - Final evaluation
   - Students average and scores
   - Closing ceremony
   - Certificates delivery
   - Final report
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</table>
# Courses in Numbers

## 1989-2003

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<thead>
<tr>
<th>COURSE</th>
<th>Registered</th>
<th>Finished</th>
<th>Dropouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment of malnourished children</td>
<td>824</td>
<td>523</td>
<td>36%</td>
</tr>
<tr>
<td>Growth monitoring</td>
<td>1,126</td>
<td>566</td>
<td>50%</td>
</tr>
<tr>
<td>Nutrition during pregnancy and breast-feeding</td>
<td>826</td>
<td>520</td>
<td>37%</td>
</tr>
<tr>
<td>“Diploma” on child health</td>
<td>644</td>
<td>567</td>
<td>12%</td>
</tr>
<tr>
<td>“Diploma” on women’s health</td>
<td>686</td>
<td>593</td>
<td>8%</td>
</tr>
<tr>
<td>Diagnosis, treatment and prevention of pesticide poisoning</td>
<td>3,691</td>
<td>2,216</td>
<td>40%</td>
</tr>
<tr>
<td>Clinical Nutrition</td>
<td>261</td>
<td>186</td>
<td>29%</td>
</tr>
<tr>
<td>Prevention and treatment of diarrhea and cholera</td>
<td>1,964</td>
<td>1,381</td>
<td>29%</td>
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</table>
**DIPLOMA ON WOMEN’S HEALTH 2002-2003**

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Students registered</td>
<td>686</td>
<td>100</td>
</tr>
<tr>
<td>Dropouts</td>
<td>58</td>
<td>8</td>
</tr>
<tr>
<td>Students graduated</td>
<td>593</td>
<td>86</td>
</tr>
<tr>
<td><strong>Students living in rural areas</strong></td>
<td>432</td>
<td>63</td>
</tr>
<tr>
<td>Students living in urban areas</td>
<td>254</td>
<td>37</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>430</td>
<td>63</td>
</tr>
<tr>
<td>Tutors</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td><strong>Students/tutors</strong></td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>
Students 628
Dropouts 58
TUTORS 62
Students’ workplaces

- National Hospitals: 45%
- Social Security: 16%
- Others: 14%
- Private clinic: 14%
- NGOS: 7%
- Ministry of Health: 2%
- Students: 2%
- Students’ workplaces: 2%
OVERALL DROPOUT CAUSES

- LACK OF TIME
- WORK CHANGE
- RESIDENCE CHANGE
- SICKNESS
- OTHERS
SUGGESTIONS FROM STUDENTS TO IMPROVE THE COURSES

RELATED TO THE LEARNING UNIT
• Increase practical exercises and clinical cases
• Include more diagrams and pictures
• Increase bibliography
• Simplify theory
• Simplify technical terminology

RELATE TO TUTORS
• Better follow-up from tutors and coordinators
• Improve quality of tutorial sessions
• Improve communication system

RELATE TO THE COURSE
• Include more learning reinforcements
• Reduce course duration
Impact evaluation of distance education courses showed an improvement in knowledge among participants as well as in professional practice in terms of: better diagnostic, better treatment and better advice to mothers.

The methodology used allowed for unification of technical criteria in a large number of participants from different regions at the same time.

This methodology is useful to update knowledge of participants without leaving their work-site.
LESSONS LEARNED

- This methodology has several advantages:
  - Does not interfere in participants personal activities
  - Does not require frequent face to face meetings
  - Individualized
  - Perfect for adult education

- There was no charge to students for some courses, but we recommend charging a fee, in order to make the course financially sustainable, and reduce the dropout rate.

- The cost of distance education is low, for instance an average cost of an eight-month course was US $97.00/student
The instructional material is useful as:
- Reference material
- Teaching material

The methodology requires
- Students with basic knowledge, responsibility and self motivation
- Well trained tutors
- Well designed learning material and course logistics

A network of tutors at the local level is a key issue to the success of the courses

It is important to establish and maintain good communication systems among participants, coordinators, and tutors.

Distance Education today at INCAP

Educational Platform

Virtual Classroom

Specialized team

E-Learning
The star sower
THANK YOU!
EXTRA SLIDES
Distance Education Advantages

- Does not interfere with the participant’s work schedule, social, cultural or family activities.
- Allows to unify technical criteria in a large number of participants from different region/countries at the same time.
- Flexible each participant decide when, where and how much time she/he will study.
- Instructional material become a reference material for future needs.
- Low cost.
- Students study at their own pace.
Distance Education Disadvantages

- Requires basic knowledge (technical and technological)
- Requires self-discipline and self-motivation
- Requires technical staff with expertise to prepare the instructional units
- Requires a well organized delivery and monitoring system
- Requires qualified tutors
- This methodology generates higher dropout rates than conventional education.