



# Technological Ecosystems for Enhancing Multiculturality TEEM'15

## DESING OF THE INSTRUMENT TO EVALUATE INNOVATION IN HEALTHCARE CENTERS

Dra. Hilda A. Del Carpio Ramos  
(Peru)

Dr. Francisco J. García Peñalvo  
(Spein)

Porto, 2015, October, 7, 8, 9



**Although it has:**

MAIS-BFC

Universal Health Coverage

Decentralized health services

Health conditions did not improve and the health failed to become a key element for the social and productive development

- the percentage of children under 6 months exclusively breastfed was 39.4%
- The rate of children under 36 months with all basic vaccines got only 26%
- The quota of children subjected to proper growth and development control equated to 40.9%
- Neonatal mortality rate: 7.6 infant deaths per 1,000 lives
- Infant mortality rate: 13 deaths per 1,000 lives
- Incidence of anemia in children aged under 5: 25.27%
- Women who reported difficulties to access health services: 53.93%
- The number of maternal deaths was 17
- 49.4% of Lambayeque population counted on the help of a health insurance

**REASONS**

Information or operational / supporting processes may not be the problem. The main cause would be the way health services are provided. This justifies innovation of services at healthcare centers



Consequently, the design of a survey is needed for the purpose of collecting information to assess factors associated with process innovation in healthcare centers, which allow us to propose innovative programs to increase coverage and ensure health care of people.

# Health Lambayeque, Peru, 2013



## **PROBLEM**

which will design a survey that is intended to assess factors associated with innovation in health centers?



## **OBJECTIVE**

the design of a survey is needed to assess the factors associated with process innovation in health centers



Qualitative study

Literature Review

That most research studies are conducted within establishments of greater complexity (Hospitals and Health Institutes) and are related to clinical and epidemiological works

This makes innovation possibilities low and access to health services limited

Human resources (HHRR)

Technological research procedures (TRP)

Infrastructure and technological equipment (ITE)

**Categories :**

HHRR

TRP

ITE

**Characteristics :**

- Knowledge  
-Motivation  
-Scientific application

Implementation of methods and tools of technology research

room and scientific and technological equipment

**Purpose :**

Determine the scientific and technological capacity for innovation

Determine the technological capacity of healthcare centers

Determine the capacity of technological investment

**Rational validity:**

- Design appropriate questions according to the categories
- Peer-reviewed questions
- Pilot test(interaction with providers)
- Redesign questions and design answers
- Automated processing



# SURVEY DESIGN

## HHRR

## TRP

## ITE

16 (1 - 16)

16 (17 - 32)

6 (33 - 38)

Always	Sometimes	Never
2	1	0

Always	Sometimes	Never
2	1	0

Always	Sometimes	Never
2	1	0

25 - 32

17 - 24

0 - 16

Human resources know research processes for innovation

Human resources make an attempt to know the innovation processes

Human resources require training on methodologies

25 - 32

17 - 24

0 - 16

The center provides research methods and technology tools for innovation

The center makes an attempt to provide methods and technology tools for innovation

The center requires training to implement research programs and plans to innovates health services.

10 - 12

7 - 9

0 - 6

The institution owns infrastructure to support innovation.

The institution makes an attempt to obtain infrastructure to support innovation

The institution requires training to implement public investment projects in a matter of science, technology, and development.

58 - 76

39 - 57

0 - 38

Innovative institution

The institution goes after innovation and requires training on technology research

The institution is not innovative and requires training on research methodology as well as technology tools and rooms for innovation

Indicators

Answers

Scores

Ranks  
HHRR

Ranks  
TRP

Ranks  
ITE

Final  
outcome

# Results



The survey design was validated in a qualitative manner with rational validity by background analysis, expert judgment and application of interactive pilot.

The design of the survey is part of the purpose of improving the health of the population.

The evaluation of innovation through the survey requires the participation of all providers of a health center; which it is difficult to achieve and can lead to distort the results. This issue is a limitation that must be considered.

The categories to be considered for the design of a survey that evaluates the innovation takes place or not in the Health Centers are three: Technological capacity of healthcare providers, technological procedures and level of infrastructure and technological equipment with which providers have for science, technology and innovation.

It is required to continue the research on design and validity of the instrument from the quantitative perspective, perform descriptive research for construct validity, investigations relating for demonstrate the reliability of the instrument; explanatory research for you ensure stability and applicative research to evaluate the efficiency of the survey.

## Conclusions



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