Telehealth: models of programs and services

Telehealth applied to Primary Health Care: the Brazilian experience

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Secretariat of Management of Labor and Education for Human Resources for Health
Ministry of Health
Basic Facts about Brazil

Population: 190,000,000

States: 26 + 1 Federal District

Municipalities: 5,563

40% of the population in metropolitan areas
Economic, Political and Social Background

- **Brasil – Political & Economical Partner**
  - Economical Growth with political stability
  - Poverty reduced from 20% to 7% of the population from 2004 to 2009
  - Worldwide events

- **Sanitary Reform**
  - Health is recognized as a right, universal access health system - SUS
  - The definition of health goes beyond its biomedical approach, including the social determinants
  - Society engagement at SUS through its representation at the National Council of Health

- **Challenges**
  - High tax of cesareans
  - High tech interventions sometimes done for the wrong reasons
  - Violence, alcohol abuse and overweight

- The Scientific Community should view Brazil thru the reforms implemented
Scenery

- Brazil went from having a very strict basical health system to being the greatest international example of a universal health system (Harris, M. 2010).
Evolution of the rate of PHC coverage

Actual % of population covered by health family teams – Brazil,
SUS Primary Health Care: Family Health Program

- Created in 1994 to improve the access of all citizens to health care
- Each FHP Team:
  - Physician
  - Nurse
  - Auxiliary Nurses
  - Dentist
  - Dental Auxiliary
  - (6) Community Health Workers
Family Health Team:
- Physician
- Nurse
- Dentist
- Auxiliary Nurse
- Community Health Worker
Infant Mortality Reduction proportional to the time and coverage of the program. (Aquino, R. 2009).

Better access of the elderly to treat and prevent the NCDs (Piccini, R 2006), in comparison with the traditional model.
Objectives:

- Improve quality of primary care
- Qualify family health teams workers
- Teleconsultancy and Formative Second Opinion
How does it work?

Tele-assistancy X Tele-education

Telehealth Center

Specialized Team

Universities

Network for knowledge sharing with positive impact in health care delivery

Teleconsultation

Question

Answer

Ready

Family Health Teams

Basic Health Units
12 Telehealth Centers

1.816/1.152 Total Spots /Municipies
53.163 Teleconsultations
740.661 Exams - Telediagnosis
21.260 Health Professionals
41.425 Participants in Tele-education
650 Formative Second Opinions
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Fonte: SGTES/MS – maio/2012
### Budget Worksheet

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**TOTAL GERAL - 2007/2013**

86.334.061,89

Fonte: SGTES/MS – maio/2012
eHealth in Brasil: 3 integrated networks

**Brazilian TeleHealth Program**: teleducation and teleassistance
[www.telessaudebrasil.org.br](http://www.telessaudebrasil.org.br)

**Open Universisty of SUS**: Allows “in service” specializing courses to thousands of health professionals
[www.universidadeabertadosus.org.br](http://www.universidadeabertadosus.org.br)

**TeleMedicine Universitary Hospitals Network**: links the universitary hospitals, sharing educational procceses, research and improvements in assistance, in all States of the Brazilian Federation – [http://rute.rnp.br](http://rute.rnp.br)
Ministry of Health partnerships in the Brazilian TeleHealth Program

- Ministry of Education
- Ministry of Science and Technology
- Ministry of Communication
- Ministry of Defense
- Public Universities
- Federal Council of Medicine
- Brazilian Society of Family & Community Medicine
- Brazilian Council of Telemedicine and TeleHealth – CBTms
- National Council of Secretaries of States (CONASS)
- National Council of Municipalities (CONASEMS)
Three different Normatizations following the evolution of the Program

- **Minister Edict n.35/2007**: establishes the Pilot Project, defines criteria to implement the program predominantly in remote areas at the five different regions of the country.

- **Minister Edict n. 402/2010**: establishes the National Program Brazil Telehealth and its structure in the states.

- **Mister Edict n. 2546/2011**: concepts of teleconsultancy, telediagnosis, Formative Second Opinion, services of telehealth are incorporated to the list of health care services of SUS and Telehealth Program is expanded to high complexity services and as strategy to reinforce the network of health care delivery as a whole.
Programa Telessaúde
- Expansão do Telessaúde
- Relatos de experiências
- História do Telessaúde
- Legislação

APS e Redes de Atenção à Saúde
- Segunda Opinião Formativa
- Objetos de aprendizagem
- BVS APS

Perguntas Frequentes
- Como está composto o Telessaúde?
- Quem pode utilizar os serviços oferecidos pelo Telessaúde Brasil?
- Como se dá a ampliação e expansão do Programa Telessaúde Brasil?

Telessaúde em Foco
- Núcleos e pontos de telessaúde
- Reuniões, oficinas e seminários
- Glossário de Telessaúde
- Literatura em Telessaúde
- Espaço Colaborativo

Teleodontologia em foco
- Núcleos e redes de teleodontologia
- Objetos de aprendizagem
- Relatos de experiências
- Segunda opinião formativa

www.telessaudebrasil.org.br 13.000 htp
Formative Second Opinion

It’s a question-and-answer combo, originated thru teleconsultation, selected because it’s relevance and link with SUS’s Directives, in which the answer is based on bibliographic research and up-to-date scientific evidencies.
Cientific Knowledge re-built to answer daily practice questions of health professionals.

Shows which knowledge is the most needed and also guide the production of learning objects.
Virtual Man Project - FMUSP

Ciclo Menstrual
664 questions classified thru CIAP2.

617 (93%) questions regarding Internal Medicine.

47 (7%), questions about the Health System flow chart, educative actions or community health.

Mental Health was the area with more doubts
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<th>Response</th>
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<td>Yes</td>
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<td>Partially</td>
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<td>No</td>
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<td>3</td>
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<tr>
<td>Do not know</td>
<td>1.4%</td>
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<td>Total</td>
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Conclusions on the Teleconsultation study

- In the vast majority of the cases, the doubts in how to proceed in clinical cases are solved.
- The professionals have a high satisfaction rate when using this service.
- Patient’s transportation which would have happened if the doubts were not answered are avoided in every 2 teleconsultations.
- The challenge of allowing the use of such instrument more intensively and widely should be made a priority.
- Studies with more permeable sceneries in comparison with control group are necessary to achieve more solid evidences.
How much has training favored your decision to remain in your job at the village?
Figure 3: Percentage of cases in which after consulting the experts a reference was no longer necessary - Dec 2007 - July 2008

- Yes, it was no longer necessary: 52%
- No, because it was not necessary yet: 14%
- No, because it was not the plan: 10%
- I got a reference after consulting the service: 27%
- Don’t know: 0%

Yes, it was no longer necessary
No, because it was not necessary yet
No, because it was not the plan
I got a reference after consulting the service
Don’t know
Cost reduction study

✓ A reduction of 5 referal per city per month or a reduction of 1.5% of the total referal avoided by the use of the TeleHealth service is sufficient to pay the costs of maintaining the TeleHealth Program.

✓ The cost of the consultation that demands reference of the patient is 8 times higher than the teleconsultation that avoids the necessity of reference.
Videoconferência
Dengue: Diagnóstico e Manejo Clínico
Dia 25/11/2009 - 14 horas (horário de Brasília)