

Four years evolution of a teleconsultation service in Minas Gerais, Brazil

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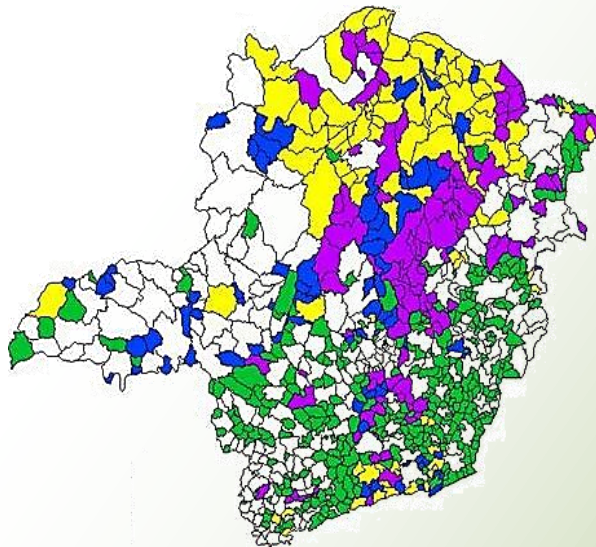
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Minas Gerais

- Brazilian province with 853 municipalities
- Population 19.600.000 people
- Large territory

Obstacles to patient referrals

- Brazilian health system
- High demand for specialists
- Geography



**Telehealth is a strategy to support healthcare practitioners in
small and geographically isolated cities**

Telehealth Network of Minas Gerais

- Expertise in teleassistance
- Teleconsultations and tele-electrocardiography for primary care in Minas Gerais since 2007
- Low cost technology

Methodology

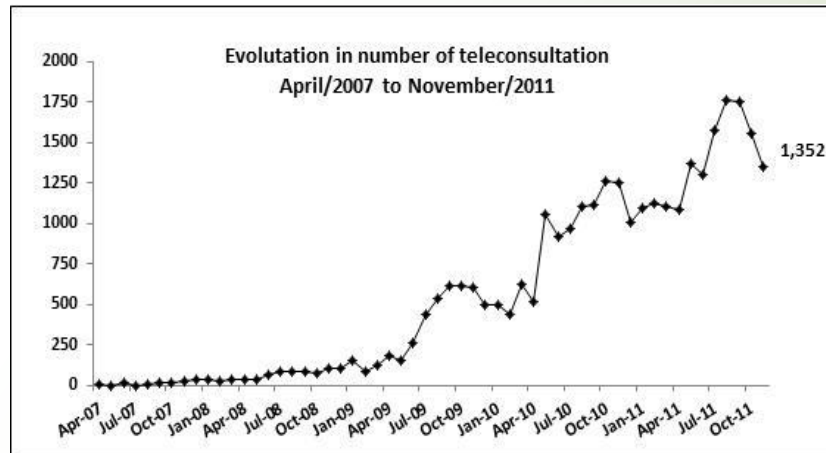
- **Objective:** describe the evolution of the teleconsultation service of the Telehealth Network of Minas Gerais from 2007 to 2011
- **Methodology:** description of the characteristics and production of the Telehealth Network of Minas Gerais from 2007 to 2011, including number of attended municipalities, utilization rates, requesting professionals, specialists who answer the teleconsultation, response time, satisfaction, cost-effective analysis

Implementation and Utilization

The service was initially implemented in 82 municipalities in 2007. Successive expansions have been performed, reaching 608 of the 853 province municipalities in 2011.

Implementation and Utilization

- Mean teleconsultation utilization rate/month increased from 5% of the implemented municipalities in 2007 to 60% in 2011
- Number of teleconsultations:
 - total of 30.975
 - 15.052 in the last year
- Solicitants in 2011:
 - 53% nurses
 - 36% physicians
 - 11% other healthcare professionals



Gatekeepers and response time



Increased number of teleconsultations

Adoption of gatekeepers

Optional referral for subspecialists

Gatekeepers answered 73% of the teleconsultations in 2011: 26% were responded by family physicians, 18% by dermatologists, 12% by nurses, 10% by gynecologists and 7% by pediatricians

Mean response time: 23 hours, 19 hours for gatekeepers and 42 hours for subspecialists

Demand on weekends and holidays corresponded to 8% and 17% were nocturnal

Satisfaction Survey

Most health professionals (97%) were satisfied with the service and referrals to distant centers were avoided in 81% of the cases

Cost analysis

Cost-effective analysis showed that the service is cost-effective and economically viable

Main economical benefit of using telehealth: reduce costs by reducing number of referrals

Conclusions

Telehealth has emerged in Brazil as a strategy to support primary care practitioners in small and geographically disadvantaged cities.

The teleconsultation service provided by the Telehealth Network of Minas Gerais has been expanding continuously and is gradually being integrated to primary care assistance in those municipalities, improving quality of care, providing continuing education, reducing isolation of primary care professionals, referrals to distant reference centers and costs.

Thank You

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