

Digital Primary Care: From Research into Policy and Practice: Telemedicine in Catalonia

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Telemedicine in Catalonia

Pre-Pandemic Telemedicine
2010-2020

Pandemic Telemedicine

Post-Pandemic
Telemedicine

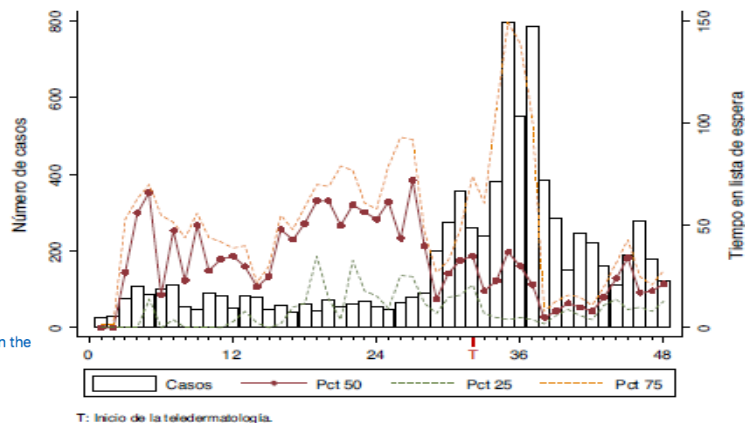
Pre-Pandemic Telemedicine 2010-2020



Preaching in the desert

Pre-Pandemic Telemedicine 2010-2020

- Since 2010 we developed several telemedicine programs.
- Among the programs, the most successful is **tele dermatology** and the most innovative are **teleulcers** and **teleaudiometries**
- Tele dermatology had considerable success in reducing dermatology waiting lists, from a mean of 30 days (95% CI: 29-32) to a mean of 16 days (95% CI: 15-17) after its implementation.



[Evaluation of the impact of teledermatology in decreasing the waiting list in the Bages region (2009-2012)].

Vidal-Alaball J, Álamo-Junquera D, López-Aguilá S, García-Altés A.

Aten Primaria. 2015 May;47(5):320-1. doi: 10.1016/j.aprim.2014.01.009. Epub 2014 Oct 18.

Pre-Pandemic Telemedicine 2010-2020

Cost-Minimization Analysis

- For the period between 2011 and 2019, a total of 52,198 visits were recorded. Telemedicine saved € 780,397.
- A differential cost favorable to telemedicine of about **€ 15 per visit** was observed, with the patient being the largest beneficiary of this saving (by 85%) in terms of shorter waiting times and travel costs (RURAL).

A Cost-Minimization Analysis of a Medical Record-based, Store and Forward and Provider-to-provider Telemedicine Compared to Usual Care in Catalonia: More Agile and Efficient, Especially for Users.

López Seguí F, Franch Parella J, Gironès García X, Mendioroz Peña J, García Cuyàs F, Adroher Mas C, García-Altés A, **Vidal-Alaball J.**

Int J Environ Res Public Health. 2020 Mar 18;17(6):2008. doi: 10.3390/ijerph17062008.

Pre-Pandemic Telemedicine 2010-2020

Referral rates to the teledermatology service per thousand inhabitants from rural centres was statistically much higher than that of urban centres

Table 1. Referrals to the teledermatology service from urban centres.

Year	Assigned population	Teledermatology referrals	Referral rates per 1,000 inhabitants.	Dermatology referrals	% referral
2015	95,102	2,124	22.3	531	25%
2016		2,398	25.2	508	21.18%

Table 2. Referrals to the teledermatology service from rural centres

Year	Assigned population	Teledermatology referrals	Referral rates per 1,000 inhabitants.	Dermatology referrals	% referral
2015	98,795	3,198	32.4	844	26.39
2016		3,208	33.5	596	18.58

Pandemic Telemedicine



Pandemic Telemedicine

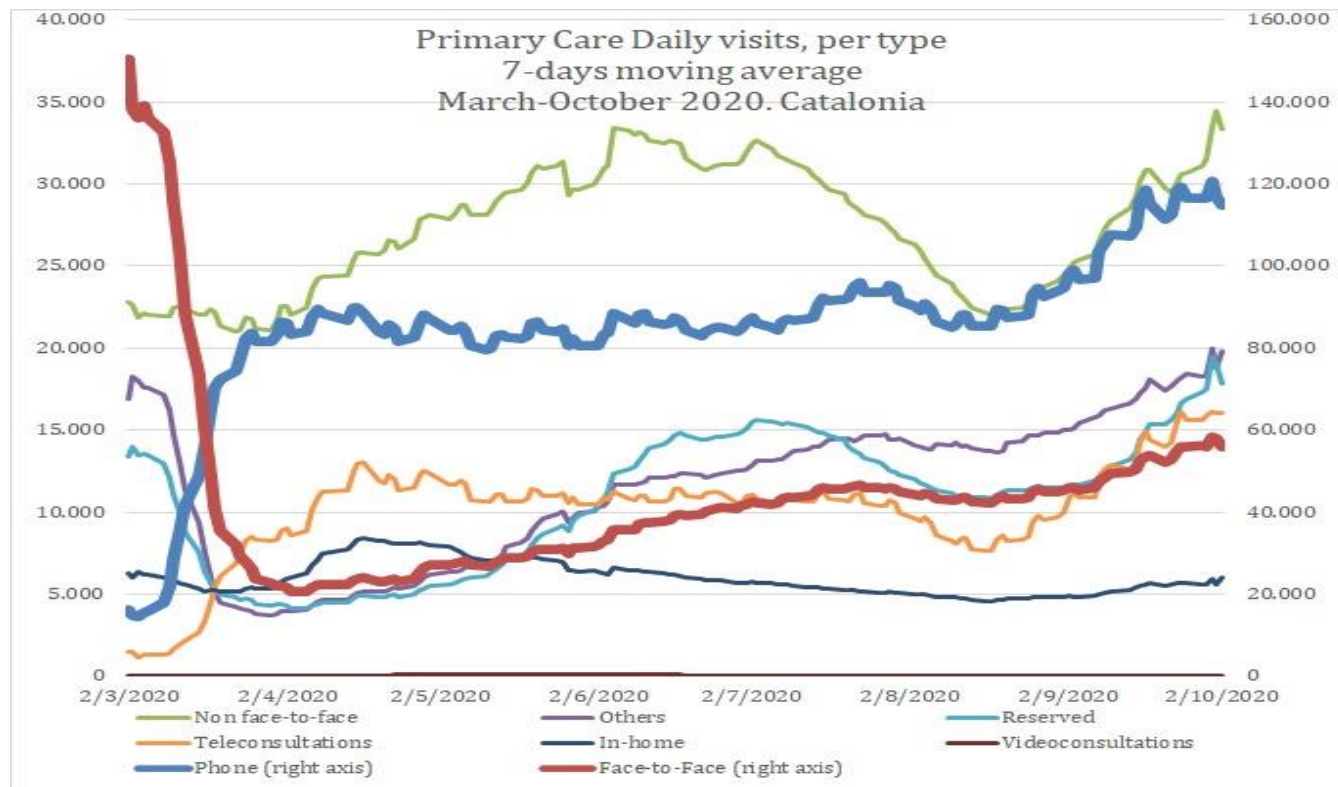
Primary Care centers **CLOSED**

Huge increase in **non-face-to-face visits**

- **Telephone** calls (triage, COVID-19 follow up)
- **Virtual visits** (tasks): repeat prescriptions, sick notes...
- **eConsultations** (access for all)
- **Video Consultations** (new)



Pandemic Telemedicine

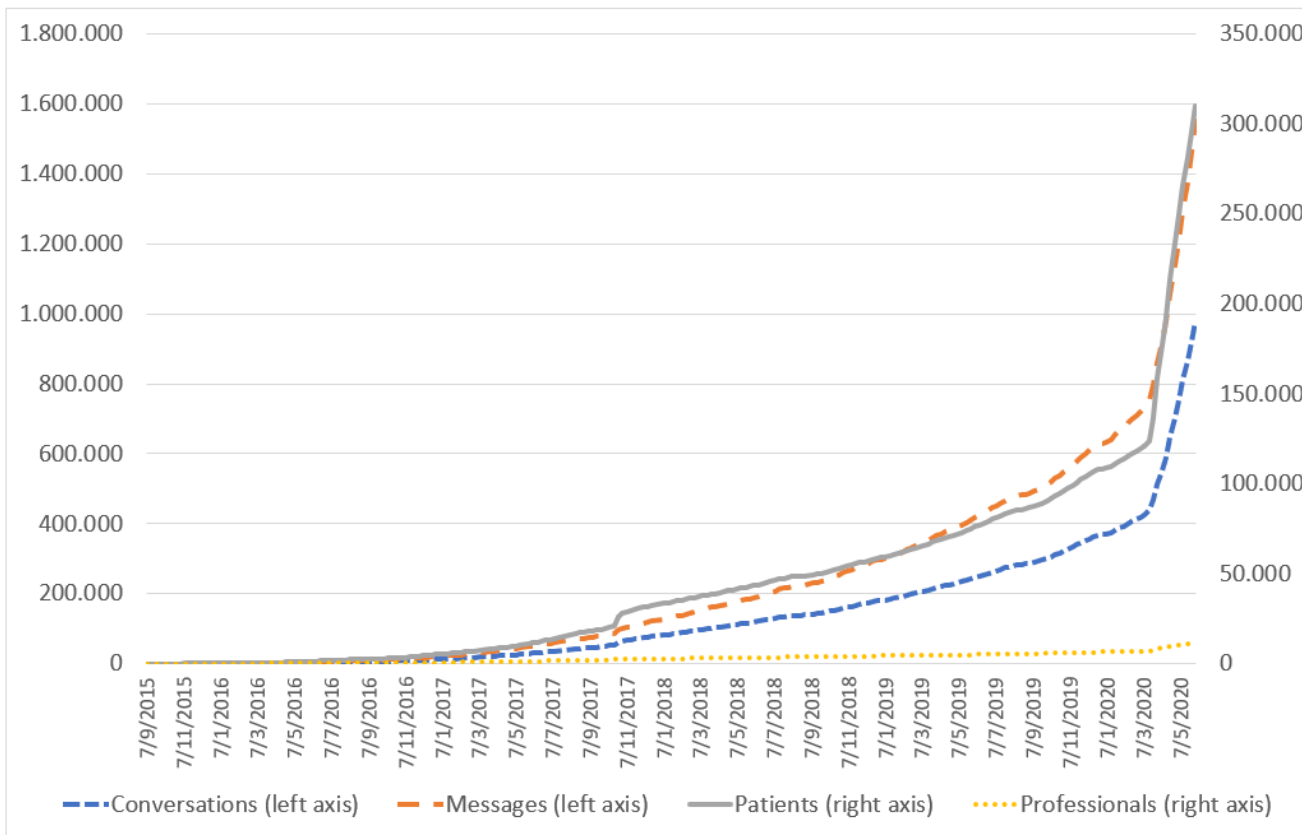


Pandemic Telemedicine

eConsulta: asynchronous teleconsulting service between health care professionals and members of the public connected to the **electronic medical records** of primary care.

- Introduced in 2015 and was gradually phased in until 2017, when it became established as a service available to all primary care teams.
- Before COVID-19 pandemic, was already growing at a rate of 24,000 conversations, 44,000 messages, 5500 new users, and 140 new professionals per month.
- With COVID-19 rates increased exponentially.

Pandemic Telemedicine



Pandemic Telemedicine

Pre COVID-19

Type of teleconsultation (N=5354)

Management of test results	1433 (26.77)	
Temporary disability management	299 (5.58)	← COVID-19
Management of visits/referrals	536 (10.01)	
Repeat prescriptions	1301 (24.30)	← COVID-19
Medical enquiries	762 (14.23)	← COVID-19
Other	1023 (19.11)	

Teleconsultation Between Patients and Health Care Professionals in the Catalan Primary Care Service: Message Annotation Analysis in a Retrospective Cross-Sectional Study.

López Seguí F, Walsh S, Solans O, Adroher Mas C, Ferraro G, García-Altés A, García Cuyàs F, Salvador Carulla L, Sagarra Castro M, **Vidal-Alaball J.**

J Med Internet Res. 2020 Sep 17;22(9):e19149. doi: 10.2196/19149.

Pandemic Telemedicine

Videoconsultations

- **New** service. Initial enthusiasm.
- Not very useful. Can't offer more than a telephone call...
- Not linked to electronic medical notes
- Technically difficult for patients
- Need fast broadband (?rural)



Pandemic Telemedicine

Have we gone TOO FAR?

- Can **induce consultations** for banal reasons, which could be almost 30% of eConsultations and could increase as **easier access** is provided (through a mobile application, for example)
- Can cause **inequalities** in the use of the service, with access differences for specific groups of **patients** according to their resources or digital skills (elderly). These inequalities could also occur among **professionals** less familiar with technological environments (out of the loop).
- Some professionals “happy” not to see patients face to face....
- Telemedicine seen as a **cheap alternative** by governments.

Pandemic Telemedicine

- Significant reductions in key diabetes management indicators were observed in 2020 compared to 2019, including foot screening (-51.6%) and glycaemic control (-21.2%).
- A 34% increase in patients with HbA1c > 10% was noted, indicating **worsening diabetes control**.
- **Primary care practices offering fewer weekly face-to-face appointments experienced greater declines in quality indicators.**
- The study underscores the necessity of restoring in-person visits for effective management of chronic conditions like T2DM.

Association between the reduction of face-to-face appointments and the control of patients with type 2 diabetes mellitus during the Covid-19 pandemic in Catalonia.

Coma E, Miró Q, Medina M, Marin-Gomez FX, Cos X, Benítez M, Mas A, Fàbregas M, Fina F, Lejardi Y, **Vidal-Alaball J.**

Diabetes Res Clin Pract. 2021 Dec;182:109127. doi: 10.1016/j.diabres.2021.109127. Epub 2021 Nov 6.

Pandemic Telemedicine

- From 2017 to 2022, there was an 86.6% **increase** in the **prevalence** of **depression** and **mood disorders** in Catalonia, with women being more affected.
- The proportion of **eHealth consultations** for depression-related visits rose significantly, from 4.34% in 2017 to 26.3% in 2022.
- The pandemic accelerated the adoption of eHealth, highlighting its emerging role in managing depression and mood disorders.
- Men and younger individuals were more likely to use eHealth services, and **eHealth consultations were associated with higher use of antidepressants and anxiolytics.**

eHealth in the Management of Depressive Episodes in Catalonia's Primary Care
From 2017 to 2022: Retrospective Observational Study.

Fuster-Casanovas A, Miró Catalina Q, **Vidal-Alaball J**, Escalé-Besa A, Carrión C.

JMIR Ment Health. 2024 Jan 18;11:e52816. doi: 10.2196/52816.

Post-Pandemic Telemedicine. Debate

- Telemedicine has shown great potential to help improve patient care, specially in rural settings.
- It is a **medical act**, and as such, must be accepted by the patient. **Patients need to be involved.**
- Must guarantee the patient's right to autonomy, professional secrecy, protection of personal data, privacy and confidentiality.
- It is not a replacement to face-to-face visits, it is an **adjunct**
- It is another type of visit like face-to-face, telephone or house visits.
- It should **not** be an excuse for **inferior health care** and should **not be used to cut health care services**, specially in **rural areas**.

Gràcies!



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<https://www.slideshare.net/jvalaball>