



## B-HEALT MODEL FOR TELEGASTROENTEROLOGY

UNIVERSITY OF CONCEPCION

PhD Angélica Avendaño V. | [aavenda@udec.cl](mailto:aavenda@udec.cl)

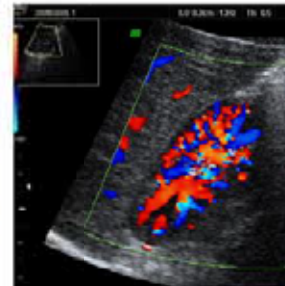
Director Telemedicine Unit, Faculty of Medicine, University of Concepción,  
Chile



# UDEC IN BIOBÍO & ÑUBLE



# TELEMEDICINE UNIT: 10 years



<https://telmed.udec.cl/>





## Undergraduate & Postgraduate

10 years of integration of telemedicine in the undergraduate careers of the Faculty of Medicine

Grand Round of Internal Medicine, HHT - CAAVR - HGGB

Otorhinolaryngology Specialty, SCHOL - UVALPO - UDEC

Course of Pathophysiology Internal Medicine, HHT-CAAVR-UDEC

Imaging Specialty, German Clinic

Master in Medical Informatics: University of Chile

## Permanent Formation

Diploma in Telemedicine and Health Information Technologies

Family Health Program; Palliative Care of Pain Program



# PROJECTS AND AGREEMENTS



National Center for Health Information Systems (CENS), Faculty of Health and Faculty of Engineering UDEC (Project CORFO 16CTTS-66390)

UDEC-MINSAL collaboration agreement for implementation of the Digital Attention Model, "Digital Hospital" Project

CORFO BPE in partnership with UDD and MINSAL: Guidelines for Telemedicine and Telehealth Development in Chile, N° 18-BPE-93834

National University Telemedicine Network (RUNTE) in partnership with REUNA, ACHISA, U. Valparaiso, U. de Chile, U. del Desarrollo.

Ibero-American Digital Health Network (RISAD)

Agreement with the Regional Government of Los Lagos and Health Service Chiloé

Telemedicine Agreements: SS Arauco, DAS Chiguayante, DAS San Pedro de la Paz





# Academic productivity

## Books & Chapters of books

Telemedicine and Knowledge Management: GC+T Model

CHILE Chapter on Telemedicine for ISFTeH A Century of Telemedicine

GC+T Model, UdeC. Innovation and Talent Management

## Congresses

International Conference on Technology, Knowledge & Society

Ibero-American Telehealth and Telemedicine Congress

Annual Biomedical Engineering Conference

Chilean Congress of Gastroenterology



# CARE IN TELEMEDICINE

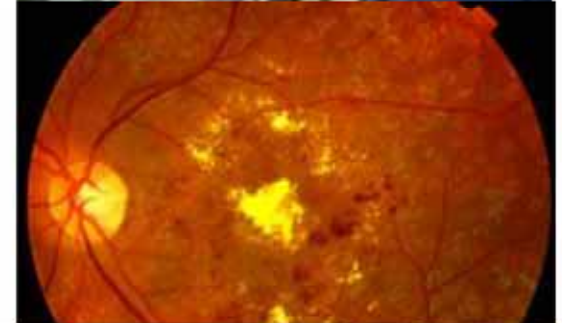


| Strategy                                       | Nº informed patients | Beneficiaries   |
|--|----------------------|---|
| Teleradiology                                  | 33.249               | SS Arauco   DAS Sn Pedro   DAS Chiguayante                                  |
| Teleophthalmology                              | 12.583               | SS Arica  H Linares  SS Arauco  SS Chiloé   SS Concepción                   |
| Teledermatology                                | 2437                 | SS Arauco   |
| Endocrinology<br>Teleconsultation              | 191                  | DAS Sn Pedro  DAS Chgte   |
| Gastroenterology<br>Teleconsultation           | 511                  | DAS Chgte  SS Arauco  |
| Telecardiology                                 | 84                   | SS Chiloé, H Tocopilla, H Linares   |
| Videoconference<br>(synchronous<br>connection) | 2.596 hours          | OTL, Imaging, Internal Medicine, SS Concepción, HGGB, Family Health Program |



# CARE IN TELEMEDICINE: TELEOPHTHALMOLOGY

- Screening for timely detection of Diabetic Retinopathy.
- Patients of Health Services: Concepción, Arica, Arauco y Chiloé.
- Training of involved HR.
- Development of Platform for transmission and storage of retinographies and medical reports.
- **12.583** patients informed. 2014 – 2018.





# CARE IN TELEMEDICINE: TELEDERMATOLOGY

- Use of Minsal platform for Teledermatology
- Cases from Arauco Health Service
- **2437** patients evaluated and diagnosed
- 59,3% referrals was resolved in place of origin 2015 - 2018



# CARE IN TELEMEDICINE: TELERADIOLOGY

- Patients of SS Arauco, SS Concepción. 8 cities.
- Osteopulmonar radiology exams.
- Development of platform with DICOM standard for transmission and storage of images.
- Induction and training of HR.
- Detection and follow-up for improve of radiological technique.
- Creation of e-learning course to technical team.
- **33.249** reports 2015 – 2018.



# CARE IN TELEMEDICINE: TELE-ENDOCRINOLOGY

- Strategy of Teaching-Assistance Collaboration.
- Municipal Health Administration of San Pedro de la Paz and Chiguayante.
- Resolution of clinical cases in presence of medicine undergraduate students.
- Teleconsultation in Endocrinology, connecting to medical specialist and general physician of Primary health Centers.
- 2017 - 2018: 35 Sessions, **191** patients.



# CARE IN TELEMEDICINE: TELECARDIOLOGY

- Acrux Healthcare Operative (Chiloé, Tocopilla, Linares, Juan Fernandez).
- In collaboration with Chilean Navy and Acrux Foundation.
- Cardiologist in Telemedicine Unit does teleconsultation in real time for patients from vulnerable areas.
- Synchronous transmission of ECG.
- 2017-2018: **88** patients.



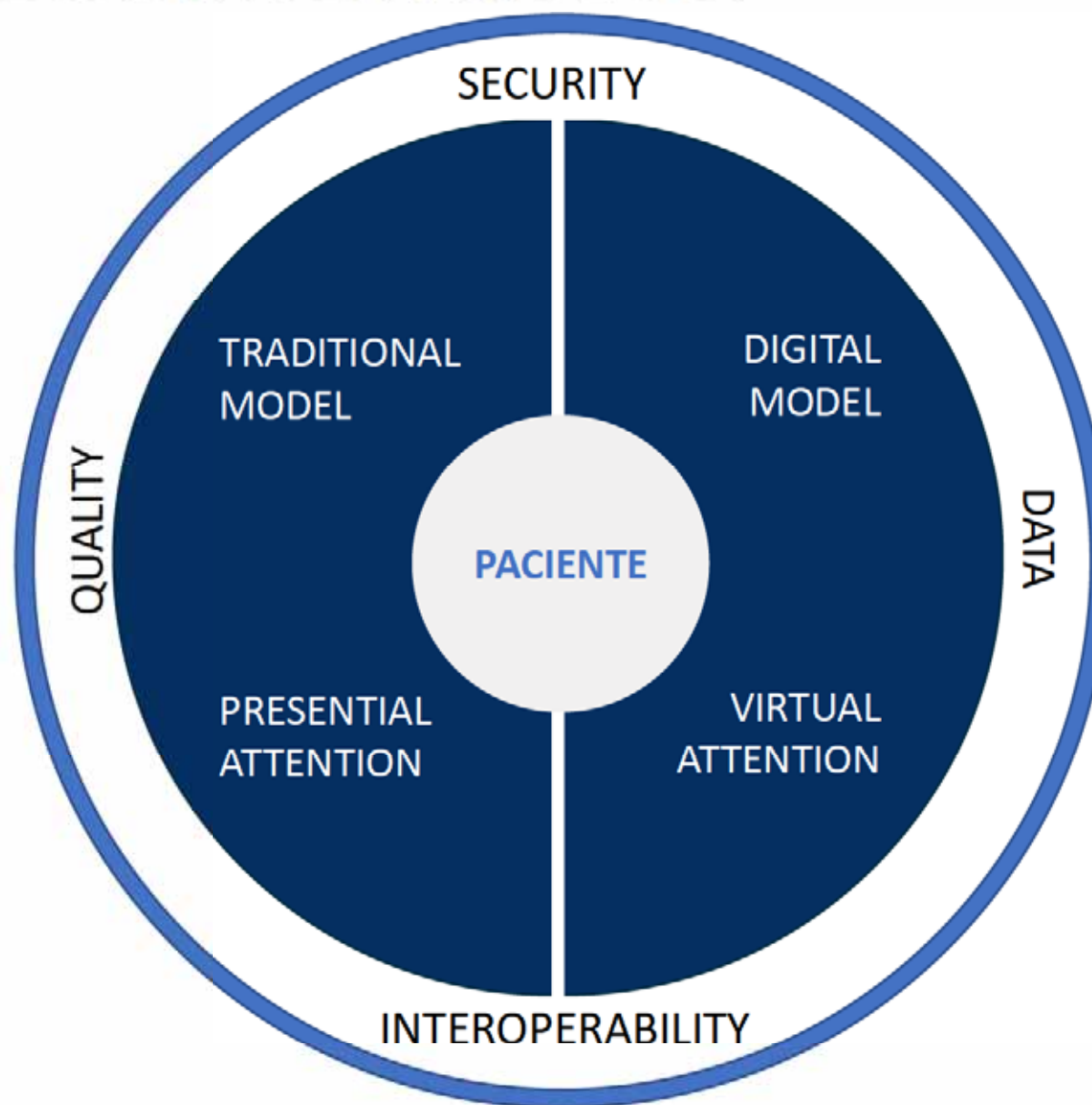
# CARE IN TELEMEDICINE: TELEGASTROENTEROLOGY

- Strategy of Teaching-Assistance Collaboration
- Resolution of clinical cases in presence of students of Internal Medicine course (VI semester)
- Teleconsultation in Gastroenterology, connecting to medical specialist and general physician of healthcare centers of **Arauco Province y Concepción Province**
- 511 Patients, 108 sessions
- Patients on waiting list repository 2015 – 2018





# B-HEALT MODEL FOR TELEGASTROENTEROLOGY



# ADVANTAGES OF MODEL

- ✓ Patients
- ✓ Medical relations
- ✓ Times
- ✓ Relevance (pertinencia)
- ✓ Reference
- ✓ Quality
- ✓ Costs





# TELEMEDICINE UNIT PROJECTIONS

Innovation, education, training, medical services and health data analysis with the use of Technology



Ministry of Health,  
Health Services,  
Municipalities, public-  
private companies.







Thank you!  
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