

**A SUCCESS STORY IN
REMOTE DIAGNOSTICS:

BETTER RESULTS WITH
SIGNIFICANTLY LOWER COSTS**

**Dr. Lauri Toivonen, MD, FESC, FACC
Chief physician
Department of Cardiology
Helsinki University Hospital**



DISCLOSURES

- 👁 Collaborator in Remote Analysis Ltd
- 👁 Shareholder in Remote Analysis Ltd

HEALTH CARE IN FINLAND

- 👁️ Municipalities are obliged by law to arrange healthcare for their inhabitants
- 👁️ Primary healthcare is delivered at health centres employing mainly general practitioners and nurses who provide most day-to-day medical services
- 👁️ Secondary and tertiary care is provided in hospitals run by federations of municipalities
- 👁️ Private outpatient and occupational health services



ACCESS TO SPECIALIZED CARE

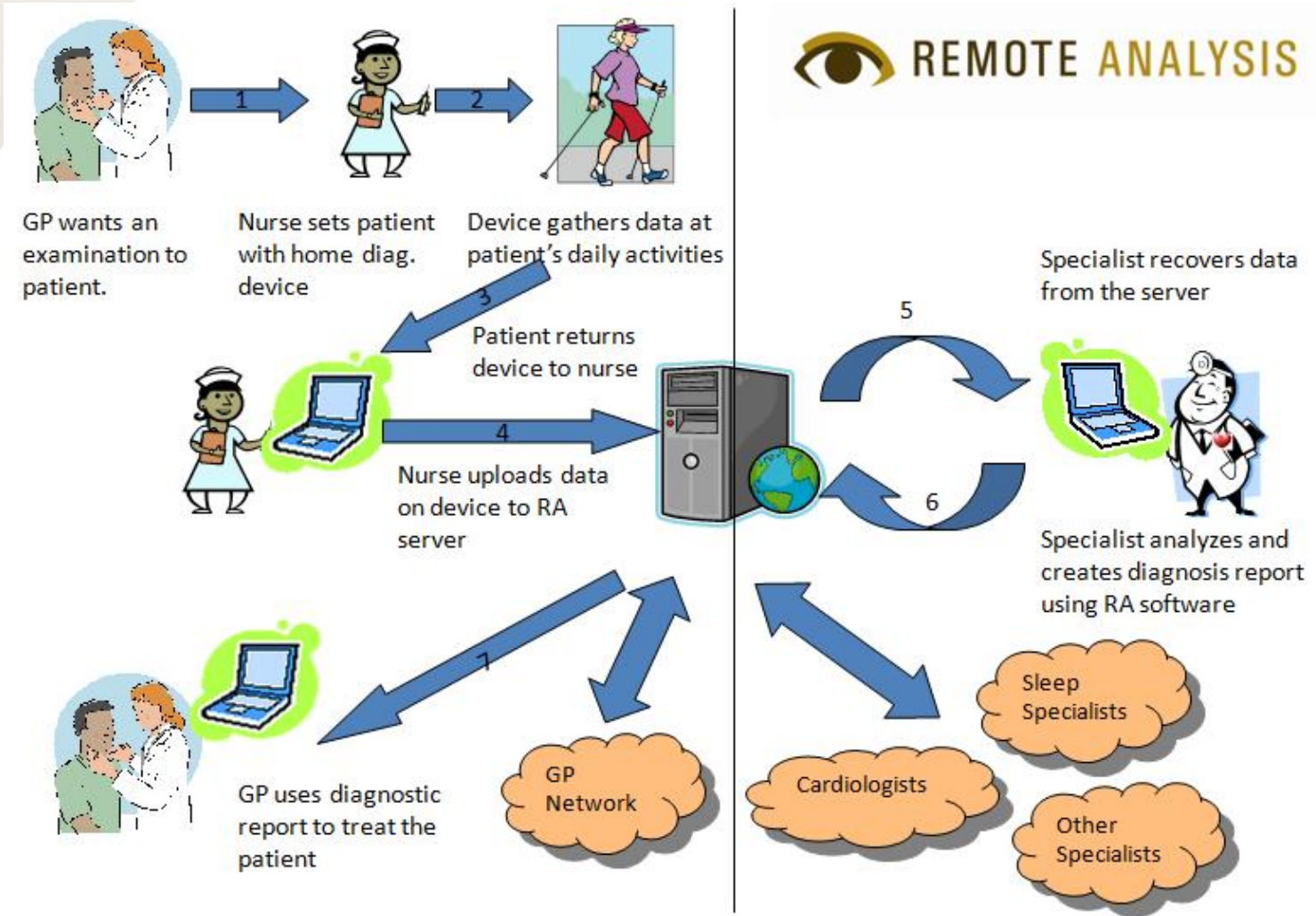
- 👁️ Basically, the attending physician decides if the patient needs to be referred to the secondary care sector
- 👁️ Municipalities negotiate on the provision and costs of services with their hospital district annually
- 👁️ Waiting times for referrals in the secondary care are typically long
- 👁️ Therefore patients may not always have adequate access to specialized care

INTRODUCING A NEW SERVICE

- 👁 Based on the above observations, the Remote Analysis service was launched in 2002 as a joint venture between
 - renowned medical specialists
 - innovative IT professionals
 - business administration professionals
- 👁 It was possible as
 - new ambulatory diagnostic devices became available
 - Tests were clinically and scientifically proved and
 - accepted by medical professionals

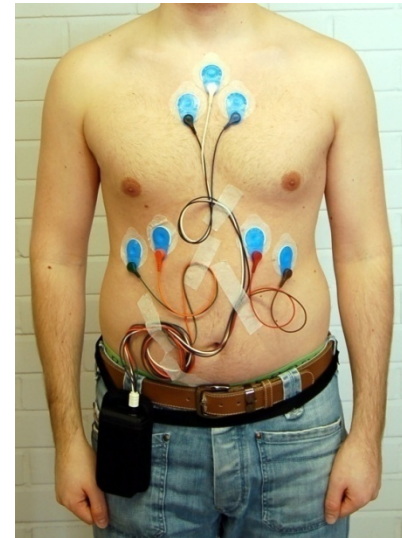


PROCESS MODEL



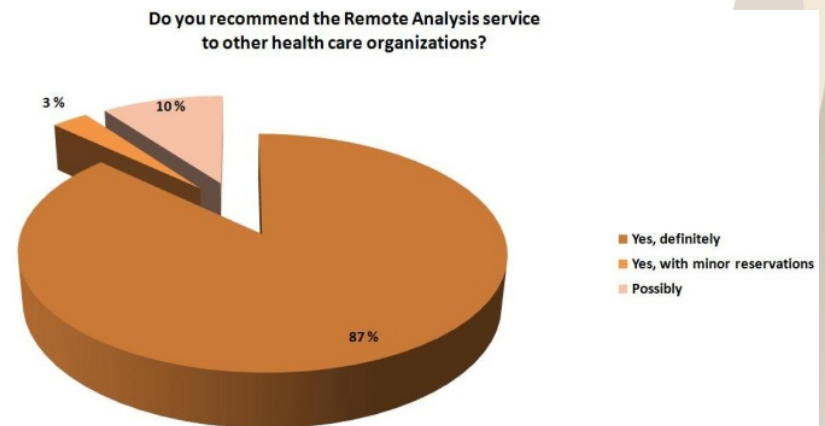
SERVICE PRODUCTS

- 👁️ Examinations with devices provided:
 - Ambulatory electrocardiography (24 h holter)
 - Ambulatory blood pressure recording
 - Polysomnography
- 👁️ Consultation only:
 - 12-lead ECG consultation
 - Spirometry consultation
 - Drug safety consultation
- 👁️ Specialists' reports and consultation
 - Working by caseload
 - University hospital affiliated
 - Cardiologists, clinical physiologist, pulmologist, otorhinolaryngologist



EASY ACCESS, SECURE SYSTEM

- 👁 Practices get the registration devices free of charge
- 👁 Deployment takes place in less than 30 minutes via a PC and Internet access
- 👁 Selected clinical data transferred
- 👁 Data security is state-of-the-art, users are identified with certificates
- 👁 No person identification sent over the internet



Source: Customer satisfaction survey 11/2008

USERS GEOGRAPHICALLY

- 👁️ Health care provider units
 - Municipalities 86
 - Private clinics 50

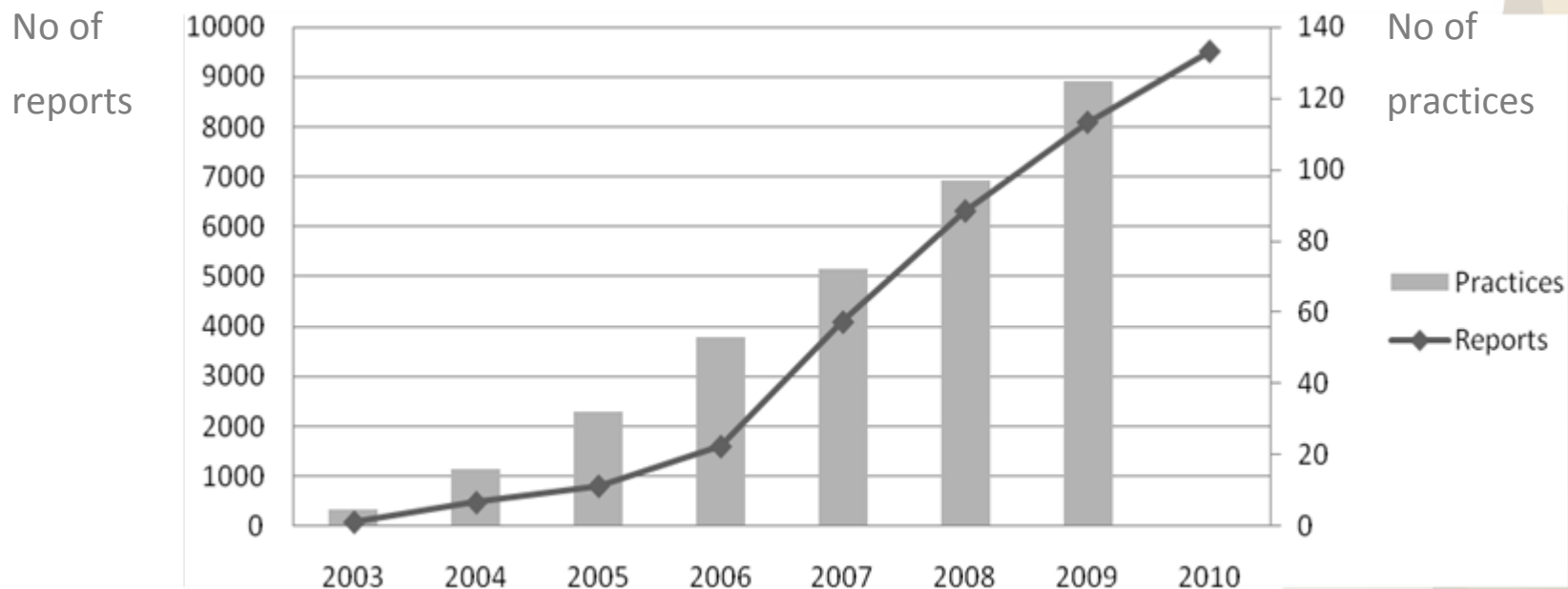
- 👁️ Number of devices
 - 24 hour ECG 159
 - 24 hour BP 86
 - Polysomnography 103

- 👁️ Countrywide coverage



DEMAND OF TELEMEDICINE SERVICES

- 👁 Usage has grown rapidly
 - More than 1.000 reports delivered monthly in 2010



VALUE FOR PATIENTS

- 👁️ Patients benefit by gaining rapid access to diagnosis and treatment
- 👁️ Testing can be initiated with less interference to the patients' daily activities
- 👁️ Wide availability improves diagnostics and care
- 👁️ Better identification of the patients who need specialized health care



VALUE FOR SPECIALISTS

- 👁️ Analysis and reporting independent of place
- 👁️ More efficient use of time
- 👁️ Broader spectrum of patient cases contributes to deepening the expertise
- 👁️ Opportunity to take part in the development of an innovative telemedicine system



VALUE FOR PHYSICIANS

- 👁️ The general practitioner gets a consultation report with recommendations from the special experts of the field
- 👁️ Improved ability of the general practitioner to administer therapy
- 👁️ Learning in practice
- 👁️ Support in selecting patient referrals to secondary and tertiary care centres



VALUE FOR FUNDERS

- 👁️ The cost of a telemedicine specialist consultation is a fraction of the cost of a specialized care work-up
- 👁️ By targeting the referrals via screening, remote diagnostics diminishes inefficient resource utilization
- 👁️ No investment or complex implementation are required to set up a functional diagnostic service
- 👁️ Operating costs are low, as charges are tied to actual usage only

CONCLUSION

- 👁️ The diagnostics service offered by Remote Analysis Ltd has modified the traditional division of work between primary and secondary care in Finland
- 👁️ This private enterprise initiative has contributed to public health by improving access to diagnosis, shortening queues to secondary care and reducing costs
- 👁️ Taking into account the unique features of each national health care system this service can be applied globally

**THANK YOU
FOR YOUR ATTENTION**

www.remoteanalysis.net