

'SHL'-Telemedicine 1987-2012: 25 Years of a Unique Service in Israel

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Background: 'SHL'-Telemedicine (formerly 'Shahal') provides professional medical care to subscribers who contact its monitor center by telephone or transmit their real time ECGs telephonically and describe their symptoms to a specially trained nurse, whereupon appropriate measures are taken, including the dispatching of mobile intensive care units (MICUs).

Objectives: To summarize 'SHL'-Telemedicine's 25 years of community service.

Methods: Retrospective data analysis.

Results: Since 1987, 336 physicians, 227 nurses and 419 paramedics have handled 3,817,122 calls from 183,427 (cumulative) subscribers who transmitted 1,542,342 ECGs. The subscribers' age distribution was: > 81 years = 40%, 61-80 = 38%, 41-60 = 18% and <39 = 4%. Over one-fifth (22%) were completely healthy, 26% had at least one major coronary risk factor, and 52% had a cardiac history of >1 of the following: coronary revascularization (26%) myocardial infarction (24%), angina pectoris (24%), supraventricular (11%) or ventricular (7%) arrhythmias, 11% valvular disease and 10% various degrees of congestive heart failure (CHF). Telephonic medical assistance sufficed for 83% of the callers, and an MICU was dispatched for 17%, of whom 39% were taken to hospital and most of them were hospitalized for >24 hours. 'SHL'-Telemedicine performed 2,554 out of hospital resuscitations of which 347 (13.6%) patients survived to hospital discharge. In addition, since the initiation of the blood pressure program ('Telepress') in March, 1995, the monitor center received 1,587,984 automatically transmitted blood pressure readings of patients' self-measurements. 'SHL'-Telemedicine's CHF program led to a >60% reduction of hospitalizations among its subscribers. They also sought round-the-clock medical advice very early after symptom onset, unlike the behavior patterns of the general population.

Conclusions: 'SHL'-Telemedicine has become a trusted source of emergency and long-term medical service for the community-at-large.