HUNGARIAN CHARITY SERVICE OF THE ORDER OF MALTA

NASZLADY ATTILA EGÉSZSÉGFEJLESZTÉSI PROGRAM

A novel approach in telemedicine – bringing hybrid, contact- and telemedicine-based mobile healthcare services in rural Hungarian areas

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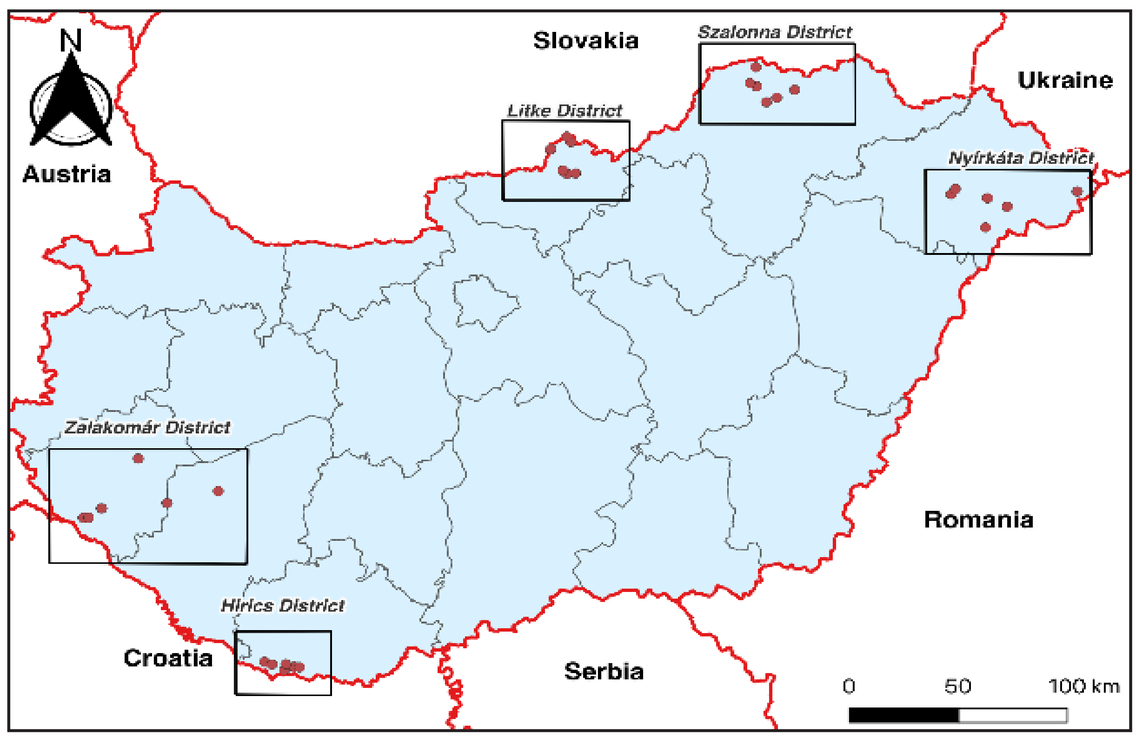
Background:

Limited access to healthcare is one of the main problems effecting rural, socioeconomically underprivileged areas in Hungary. We aimed to prove the feasibility of telemedicine-assisted care for underprivileged populations.

Method:

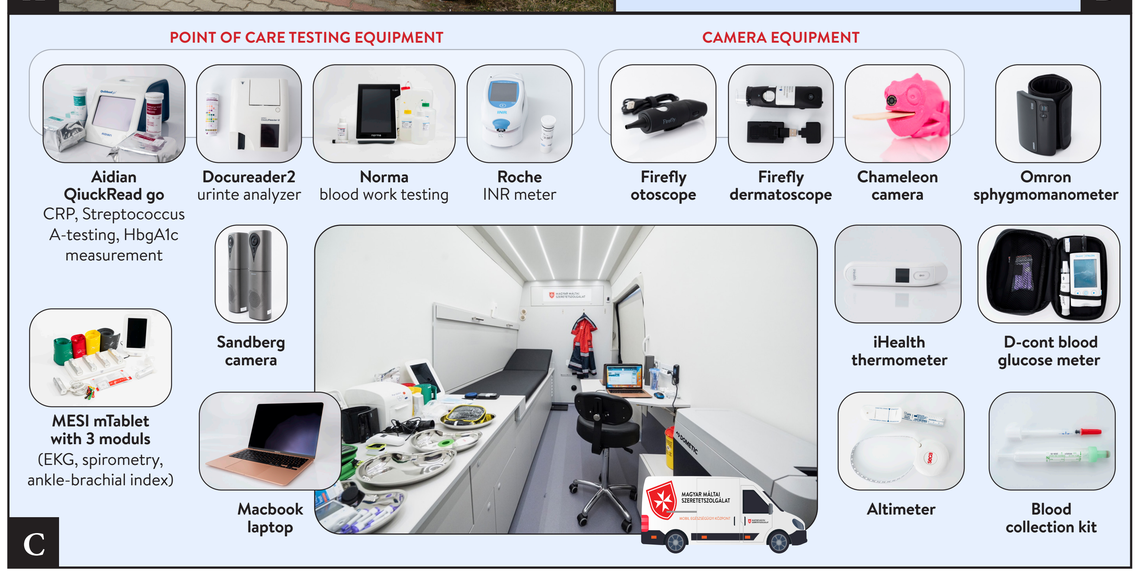
The Hungarian Charity Service of the Order of Malta operates a mobile healthcare program (MHP) in **30 "Emerging Settlements"** in 5 underprivileged clusters *(total pop. 21,477)*.



MHP operates **12 Mobile clinics**: vans equipped with broadband internet connection, devices enabling certain aspects of the physical examination via telemedince and high-resolution videoconference, and additional diagnostic tools, such as point of care lab testing devices.

FIAT DUCATO 250 (L3/H2)	TECHNICAL PARAMETER	FIAT DUCATO 250 MAXI
3500	Maximum Weight [kg]	3500
2095	Curband [kg]	2090
3880	Wheelbase [mm]	4035
2524	Height [mm]	2764
130	Maximum speed [km/h]	130

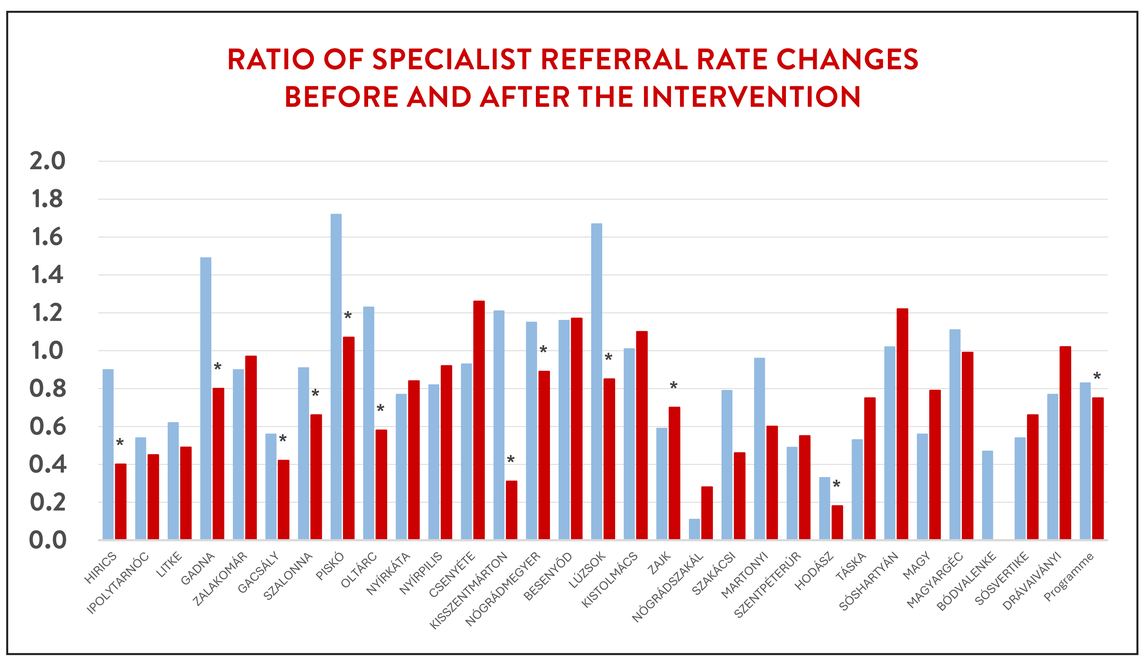
B



A mobile clinic has a trained assistant who meets the patients in person, the medical doctor perform the consultation using teleconference platform. The care focuses on screening for cardiovascular diseases and diabetes and provide chronic care for those diagnosed. The telespecialist network extend the delivered care beyond the realm of primary care.

Results:

We examined the care at MHP from **01.04.2023 to 31.10.2023** *(770 consultation days)*. **1889 people** *(1429 adults and 460 children, **8.80 %** of the overall population)* had at least one consultation in this period. The average number of care events was 2.44 for adults and 1.36 for children.



Blood pressure and glucose levels of 1430 patients were checked, resulting in **105 new hypertension** and **26 new diabetes** diagnoses. 987 patients received a total of 2177 referrals *(1024 within Maltese telemedicine providers and 1153 to external healthcare providers)*. A significant, 10% decrease in relative referral frequency was detected.

Conclusions:

MHP can effectively deliver medical care, improve chronic disease management and enhance definitive treatment in the patients'vicinity in underprivileged regions.

FINANCIAL FEASIBILITY	
Vacant GP practices in the area (out of 32)	15
Population without permanent GP	10,280 (47.87%)
Monthly primary healthcare underfunding of the area resulting from vacancies	60,050 USD to 66,370 USD
Average monthly operating cost of MHP	242,720 USD to 257,000 USD
Average monthly operating cost of a single Mobile Healthcare Service Center	20,226 USD to 21,417 USD