EHMA 2025

Taking action to improve health for all

Reforming Primary Care: Cutting Costs, Sustaining Access, Driving Impact

- Elisa Jokelin, Doctoral researcher, Dept of Public Health, University of Helsinki
- Laura Piirainen, Western Uusimaa Wellbeing Services County and Dept of General Practice and Primary Health Care, University of Helsinki
- Mette Nissen, Wellbeing Services County of North Savo
- Erja Mustonen, Ministry of Social Affairs and Health
- Paulus Torkki, presenter, Associate Professor, University of Helsinki

Background – This Presentation in Context

This presentation is part of a wider quasi-experimental study conducted in Finnish primary care (2021–2023)

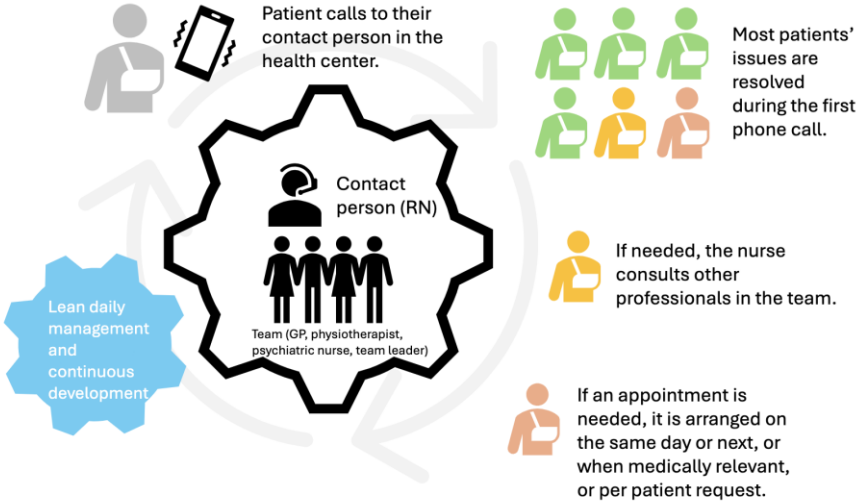
Intervention is a novel multidisciplinary team (MDT) implemented in five intervention health centers, compared with three controls

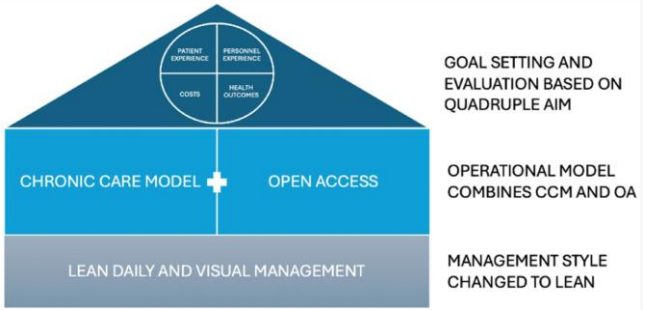
The MDT integrates Lean management, Open Access, and the Chronic Care Model (CCM)

The first publication, titled “Improving access, mixed continuity: effects of multidisciplinary teams on primary health care in Finland”, published in Scandinavian Journal of Primary Health Care (2025)

- Evaluates impacts on:
  - Access to care (T3 metric)
  - Continuity of care (COC index)

The Novel Multidisciplinary Team (MDT) intervention





Improving access, mixed continuity: effects of multidisciplinary teams on primary health-care in Finland – a quasi-experimental study. Scandinavian Journal of Primary Health Care, accepted 26.4.2025. DOI: 10.1080/02813432.2025.2502658

Data and methods

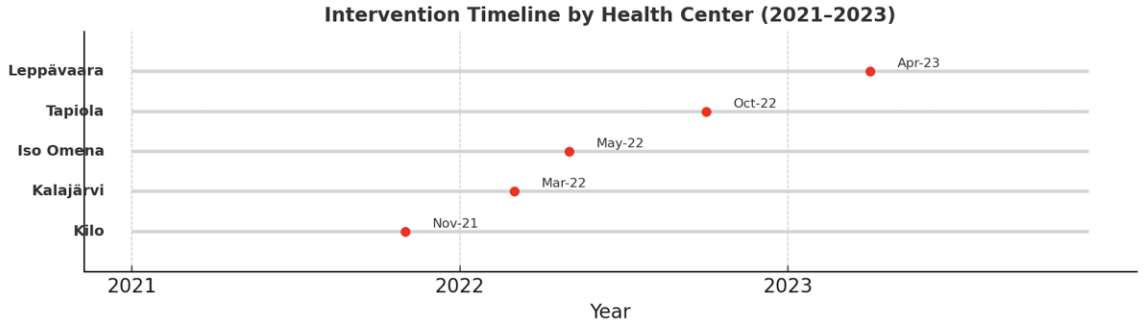
Patients with type 2 diabetes, high blood pressure and/or coronary heart disease

Comparison between two groups:

- Five intervention centers (MDT) (timeline of the interventions, see below)
- Three control centers (standard operations)

Data: 2021–2023 primary care doctor and nurse visits (in person, telephone, video) and their costs

- estimated diagnostic costs (lab and x-ray) included in the visit charge
- doctor in-person visit 222,60€, nurse in-person visit 157,20€, telephone or video visit 66,78€ (either doctor or nurse)



Patient characteristics

Baseline characteristics	Total n (%)	MDT patients n (%)	Control patients n (%)
Total	12083	7677 (63,5%)	4406 (36,46%)
Female	6054 (50.1%)	3847 (50,1%)	2228 (50,6%)
Male	6029 (49,9%)	3830 (49,9%)	2178 (49,4%)
Age, mean (SD)	58,8 (9,7)	59,19(9,48)	58,25 (9,77)
ICD-10 diagnosis and/or ICPC2-code used at any time during the study period			
Type 2 diabetes (ICD10: E11, ICPC2: T90)	6278	3540 (46,1%)	2002 (45,4%)
High blood pressure (ICD10: I10, ICPC2: K86, K87)	9228	5198 (67,7%)	3089 (70,1%)
Coronary heart disease (ICD10: I20-I25, ICPC2: K74)	751	415 (5,41%)	241 (5,47%)
Number of comorbidities			
0	77 (0,5655 %)	49 (0,638%)	20 (0,454%)
1	10957 (80,48%)	6178 (80,5%)	3492 (79,3%)
2	2440 (17,92%)	1375 (17,9%)	842 (19,1%)
3 or more	140 (1,028%)	75 (0,977%)	52 (1,18%)

Results –summary

Summary of costs, visits, patient volumes, and cost per patient (2021–2023)

In 2023, intervention centers show lower average cost per patient than control centers

Year	Group	Total cost	Total visits	Patients	Avg. cost/patient
2021	Intervention	5526284	49156	5202	1062.3384
2021	Control	3075909	26695	3335	922.3115
2022	Intervention	5332133	51598	5530	964.2194
2022	Control	3700656	31553	3592	1030.2493
2023	Intervention	5384826	53468	5880	915.7867
2023	Control	4075213	34384	3873	1052.2109

Results –average cost per patient per year

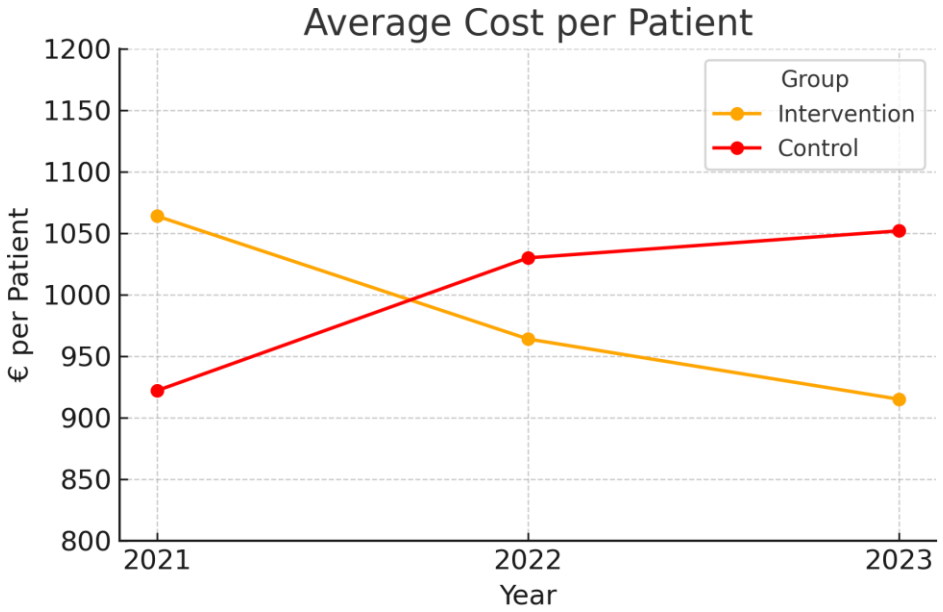
Intervention:

decrease from €1062 → €916

Control:

increase from €922 → €1052

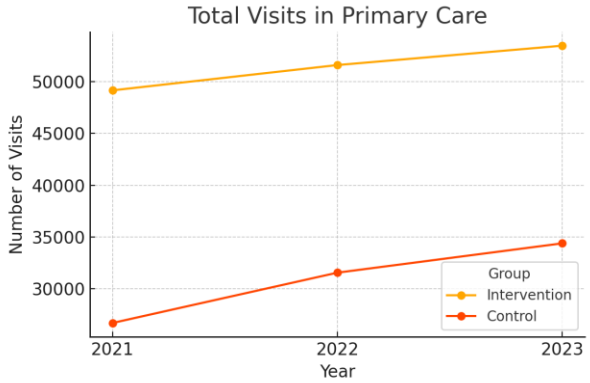
(p <0.001)

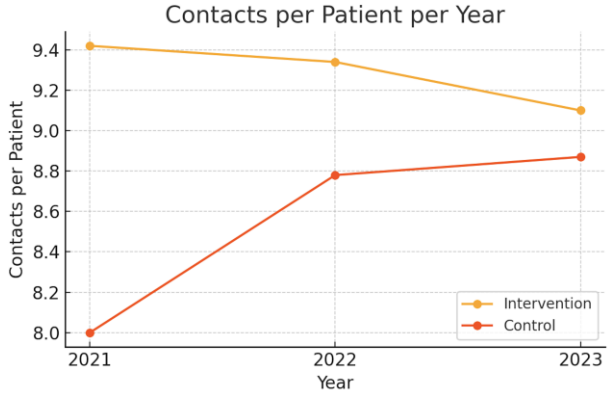


Results –visits and volumes

Intervention centers show growth in patient volumes and stable visits per patient

Control centers show less favorable development





Statistical analysis

Linear mixed model

We used a linear mixed model to assess the effect of time (year), group (intervention vs. control), and their interaction on total cost per patient. The model accounts for repeated measures within individuals.

- **Control group** had significantly **lower baseline costs** than the intervention group ($\beta = -28{,}945$ €, $p < 0.001$).
- **Costs decreased over time** ($\beta = -6{,}804$ €/year, $p < 0.001$).
- The **interaction term** (group × year) was **positive and significant** ($\beta = 1{,}431$ €/year, $p < 0.001$), indicating that **costs decreased more slowly in the control group**, or **declined more in the intervention group**.

Conclusions

Operational model changes can reduce average cost per patient

No negative impact on visit volumes

Control centers showed rising costs

Early evidence suggests effects of development work

Limitations and further research

Analysis still in progress on

- changes in distribution on visits among doctors and nurses
- health outcomes
- hospital costs
- avoidable hospital admissions
- personnel experience

THANK YOU

Further Questions? Please reach out!

Elisa Jokelin, Doctoral Researcher
elisa.jokelin@helsinki.fi

Paulus Torkki, Associate professor
paulus.torkki@helsinki.fi