Strengthening Cardiovascular Care in Pharmacies

Through a Population-Based Approach as part of the CARDIO4Cities health strategy in Leuven

Authors: Nele Roose (presenting author, Apotheia), Hilde Deneyer (co-presenting author, Apotheia), Lauren Segers (Apotheia), Lieven Zwaenepoel (Apotheia), Noortje Polet (Apotheia), Simon Boonaert (Apotheia), Becky Noyens (Thomas More), Miek Smeets (UA), Willem Raat (KU Leuven)

Background

- Cardiovascular diseases (CVD) remain the **leading cause of death worldwide,** accounting for approximately **32% of all deaths**[1].
- In Belgium, CVD causes approximately **31,000 deaths** annually, while around **754,000 people living with CVD**[2].
- A large proportion of CVD is **preventable** by addressing key risk factors such as **smoking, unhealthy diet, and physical inactivity.**
- **Early detection and prevention** are essential to reduce disease burden.
- Patients with existing CVD such as heart failure require **appropriate follow-up and management** to prevent complications and disease progression.

Aim

Community pharmacists, with **approximately 100 patient contacts per day**[3], are among the **most accessible primary healthcare providers** and are therefore well positioned to contribute to prevention, early detection, and referral. In addition, they play a key role in ensuring and monitoring medication adherence.

This initiative aims **to explore how community pharmacists** in Leuven can **support the transition from reactive to proactive healthcare**, particularly in the context of cardiovascular prevention, awareness-raising, patient follow-up, and local collaboration through data-driven initiatives.

Approach

- **International collaboration**

The pharmacists' association in Leuven Apotheia joined the CARDIO4Cities network of the Novartis Foundation to support pharmacists in improving cardiovascular health through data-driven strategies.

- **Local collaboration**

Synergies were identified with existing initiatives, including exercise-on-prescription and smoking cessation programs organized by the city of Leuven, as well as projects such as "HART" (Pharm. Becky Noyens) and "VanHarte" (Prof. Nicholas Cauwenberghs, PhD student Roxane Brouwers, KU Leuven). Within these collaborations, pharmacists contribute to patient awareness and support medication follow-up for individuals with CVD.

- **Pharmacy-based approach**

Pharmacy interventions are guided by a risk stratification pyramid. Interventions are tailored to the individual's position within this pyramid, enabling a targeted and proactive care approach.

Implementation Actions

Pharmacist engagement
- *Via outreach through pharmacy visits, phone and e-mail contact*

Smoking cessation campaigns
- *Smoking cessation support in pharmacies*

Blood pressure (BP) measurements
- *Sensibilisation via patient BP measurements in local pharmacies*

Training & implementation of the "HART" project
- *Strengthen the knowledge of community pharmacists on guideline-based heart failure management, pharmacotherapy, and patient counseling through an interactive e-learning program*
- *Support pharmacists' involvement in multidisciplinary neighbourhood teams to improve collaboration and patient care*

Bringing low-barrier health checks to pharmacies with "VanHarte"
- *Cardiovascular health checks by trained citizens at multiple locations, including pharmacies*

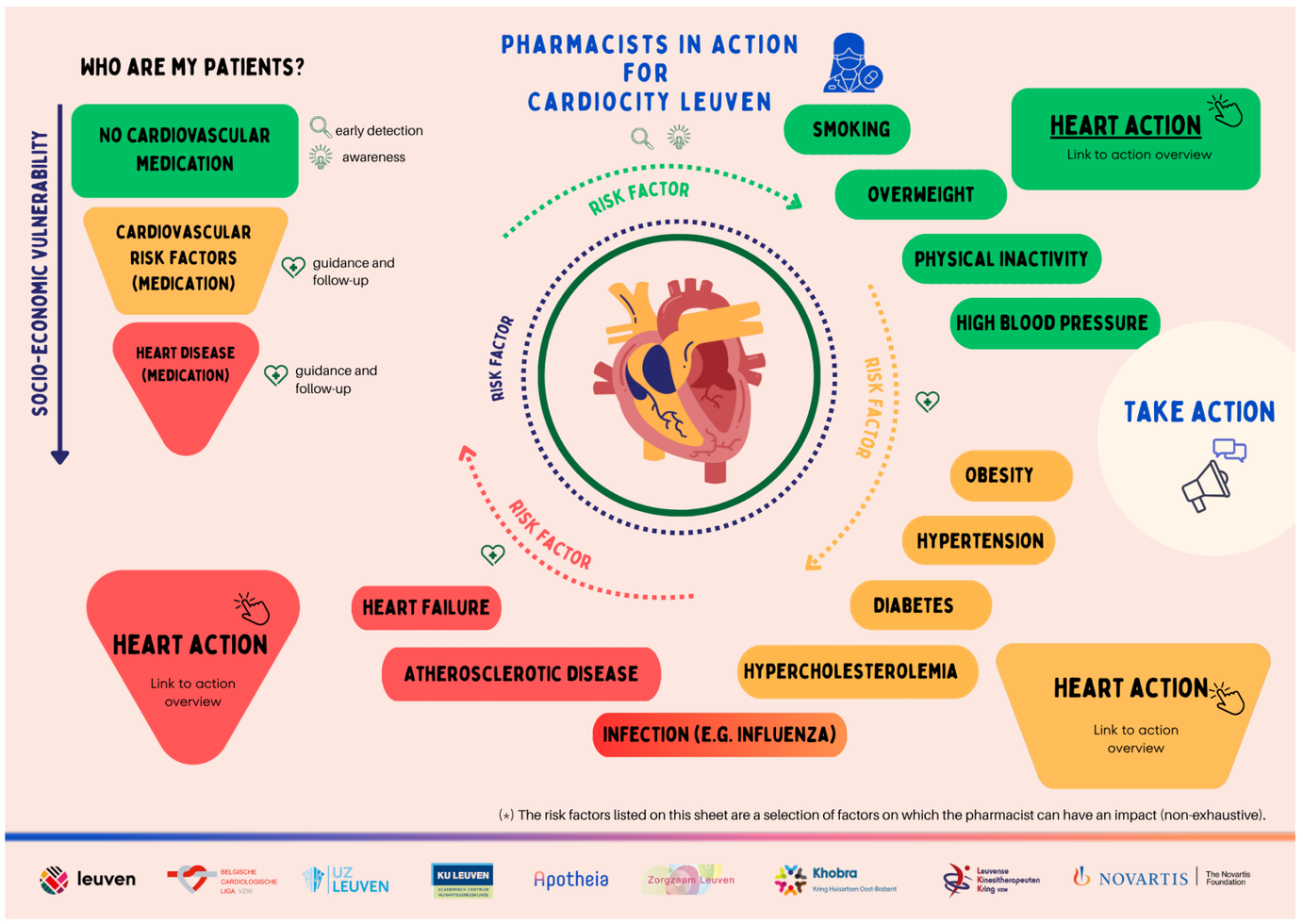


Figure 1. Pharmacist activity sheet – Apotheia

Results (preliminary/planned)

Smoking cessation campaign – *Vlaams Apothekers Netwerk*
- Number of registered smoking cessation interventions in pharmacies

Master thesis and pilot project "Meet je Mee" – *thesis supervisor Lauren Segers and project team Nele Roose and Noortje Polet*
- 24 pharmacies included for blood pressure measurements in a health corner
- Number of blood pressure measurements, sensibilization conversations and number of referrals
- Barriers and facilitators for implementation
- Patient and pharmacist experiences with blood pressure measurement in pharmacies

Master's thesis and project "HART" (Heart failure phArmacists in a Regional community Team) – *supervisor Willem Raat, co-supervisor Miek Smeets and mentors Becky Noyens, Simon Boonaert, Nele Roose and Noortje Polet*
- Number of participants in heart failure e-learning
- Heart failure e-learning evaluation and usability of the training
- Proactive engagement with high-risk patients
- Multidisciplinary collaboration
- Barriers and facilitators for implementation

Project "VanHarte" – *prof. Nicholas Cauwenberghs and PhD student Roxane Brouwers*
- Including at least five pharmacies where trained citizens perform cardiovascular health checks
- Participants receiving cardiovascular risk insights and personalized lifestyle advice

Impact and future

This initiative aims to **increase awareness of cardiovascular risk factors**, including smoking and high blood pressure, while **improving treatment adherence and self-management among patients with CVD**. By focusing on early detection and patient empowerment, healthcare providers and citizens can contribute to reduced cardiovascular disease risk and a strengthened role of prevention.

References

1. *World Health Organization.* https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds)
2. *Belgische Cardiologische Liga.* https://liguecardioliga.be/belgie-heeft-een-nationaal-plan-voor-hart-en-vaatziekten-nodig/
3. *Domus Medica.* https://www.domusmedica.be/actueel/vlaanderen-versterkt-rol-apotheker