

The Burden of Structural Heart Disease in Belgium Policy Recommendations for tackling a lethal condition

Structural Heart Diseases (SHDs) are a growing problem in Belgium and across Europe which will have wide-ranging consequences on Belgium's society and health care system if they remain unchallenged. These life-threatening conditions, such as aortic stenosis and mitral- and tricuspid valve regurgitation, are cardiac defects that demand repair and/or replacement of heart valves.

The COVID-19 outbreak has further demonstrated the urgent need for Belgium to address Structural Heart Disease because cardiovascular patients are more susceptible and vulnerable to viral infections. Indeed, data has demonstrated that the pre-existence of cardiovascular conditions in citizens infected by COVID-19 is one of the pandemic's leading comorbidities and a strong predictor of the need for hospitalisation in intensive care units.ⁱ

Explaining the growing burden of Structural Heart Disease in Belgium

The urgency linked to SHD is due to its prevalence dramatically increasing with age, indeed research has demonstrated that approximately one in three citizens above the age of 85 is affected by these conditions.ⁱⁱ It is currently estimated that 240,000 Belgians suffer from SHDs, and in light of Belgium's ageing population, it is expected that almost half a million people will be affected by Structural Heart Disease by 2040.

However, and despite Belgium's population becoming older, political and societal stakeholders are insufficiently aware and concerned by these life-threatening conditions. This is an alarming situation given that the ageing of Belgium's population will not stabilize until 2040. A 2019 survey performed by Belgian cardiologists has demonstrated a critical lack of citizen concern for these conditions which results from insufficient awareness among the population.ⁱⁱⁱ Despite their lethality, the survey reported that less than 10 percent were able to correctly identify what aortic stenosis was with only 2 percent of Belgians were concerned by SHDs.

A lack of awareness on the part of citizens and healthcare professionals can lead to delayed diagnoses, insufficient identification of the symptoms associated with SHDs and delayed treatment of patients. Given that more than 50% of patients with severe symptomatic aortic stenosis die within 2 years if they remain untreated^{iv}, it has become a necessity to better inform Belgian citizens of the consequences of these conditions. It should not be accepted that one in four Belgium citizens report that they seldom receive heart auscultations by their general practitioner where valvular diseases can be suspected through a simple stethoscope check^v.

Understanding the impact of Structural Heart Disease in Belgium

Today, SHDs are already placing measurable economic and societal strains on our society which will become exponentially more challenging because of the links between SHDs, population ageing and functional decline.

The **burden of SHDs on Belgian's economy and society** is already significant and will only worsen in the years to come. Functional decline, a common consequence of SHD which manifests in a loss of independence and leads to societal exclusion, will significantly increase alongside Belgium's ageing

population. Belgium's society will see the **old-age dependency ratio** grow from 25% in 2018 to 38% by 2040 which will significantly increase the need for carers, both formal and informal.^{vi}

The consequences are clear as it will become necessary for Belgium to allocate considerably **more financial resources to its healthcare system and to long-term care** in particular. Not counting in the costs associated with informal care – a 2015 study showed that 20% of the Belgian population over 50 reported that they are providing informal care on a daily or weekly basis – the total cost of cardiovascular diseases in Belgium that year was estimated to be nearly € 2.5 billion, or nearly 6% of total healthcare costs.^{vii}

In light of demographic and societal developments, the availability of informal carers will significantly decline in the near future and **a shift towards formal care** can be expected. In order to cover for these changes, it will become necessary for Belgium to increase its yearly budget **for long-term care** by an estimated **€ 4 billion euro by 2040**.

These issues need to be addressed now. Belgium would significantly benefit from a healthy ageing population which could better contribute to the economy through paid work or volunteering. Policies addressing Structural Heart Disease could have a number of positive consequences as they would reduce Belgium's dependency on carers, both formal and informal, and would drastically reduce the prevalence of functional decline while also improving the mental health of Belgium's older citizens who often suffer from isolation as a consequence of functional decline.

Belgium's approach to Structural Heart Disease

With the **WHO launching the Decade of Healthy Ageing** (2020-2030) and the **Integrated care for older people** (ICOPE) guidance for person-centred assessment and pathways in primary care, the timing could not be better for Belgium to proactively address the challenges associated with an ageing population by implementing policies tackling Structural Heart Diseases.

Belgium's focus has currently turned towards healthcare quality improvement. Indeed, in addition to ambitious initiatives such as the **Chronic Disease Action Plan** and the **Reform of the Financing of the Hospital** which seek to prevent conditions associated with ageing, promote a better pathway for patients to access quality care and innovative technologies, it is also encouraging to see sub-federal entities and governments recognize the need to enact preventative policies regarding diseases associated with old age through initiatives such as the **Walloon Plan for Prevention and Promotion of Health** and **Flanders' Health Policy Memorandum 2019-2024**.

The ageing challenge and COVID-19 crises have exposed the gaps in our healthcare system and underlined the need for the development of policies specifically addressing cardiovascular diseases and SHD. The increase in life expectancy has slowed down the past years due to cardiovascular diseases, possibly linked to too little policy attention.^{viii} Finally, the development of policies promoting the early diagnosis and treatment of SHDs would play a crucial role in ensuring that senior citizens are protected and can play an active role in society. Ultimately, a coordinated multidisciplinary approach to research, education, detection and clinical management means we can improve outcomes for all patients with SHD.

Addressing the Gaps in Belgium's approach to Structural Heart Disease

Policy recommendations¹

❖ *Promoting a cultural shift in Belgium's understanding of Structural Heart Disease*

- I. Develop targeted awareness raising campaigns through relevant regional entities, such as the Flanders Institute for Healthy Living, which could focus on the challenges of groups vulnerable to structural heart diseases such as people above the age of 65.
 - *Public funding should be provided to organisations dedicated to patients with heart disease and elderly affairs to ensure delivery of support and information for patients.*
- II. Call on the Belgium Health Care Knowledge Centre (KCE) to launch a study on the impact of cardiovascular diseases, including structural heart diseases, which assesses the burden and costs associated with the disease across regional and national levels, both in and out of hospital.
- III. Provide educational material and training for healthcare professionals to ensure symptoms associated with structural heart disease can be recognised and treatment be provided in time.
 - *Funding should be provided for Community Health Centres who can provide their support to general practitioners.*

❖ *Increasing our ability to detect and treat Structural Heart Disease*

- I. Implement a sustainable protocol for the detection of structural heart disease which can be followed by general practitioners and Community Health Centres to ensure that heart health checks for all people over the age of 65 in Belgium are systematically performed so that no citizen dies of undetected treatable heart disease.
- II. Facilitate integration of digital tools to aid in detection of heart valve disease in primary care settings.
- III. Promote a continuation of care pathway to cardiovascular diseases and a coordinated multidisciplinary approach, which sees constant communication between a wide variety of healthcare professionals, from cardiologists and surgeons to general practitioners and geriatricians, securing a more sustainable healthcare system.
- IV. Secure appropriate funding for early, proactive, innovative and curative management of structural heart disease so that patients can return to normal life rapidly and contribute actively to society, which will in turn contribute to improving the resilience of Belgium's health system.

❖ *Improving the resilience of Belgium's Health Care System*

- I. Develop regional and federal guidelines and policies protecting vulnerable groups, such as cardiovascular patients, during public health crises.
- II. Develop regional policies advocating for the promotion of active ageing and the silver economy: healthy life expectancy, productivity, and quality of life in ageing.
- III. Promote smart investment in innovative healthcare solutions, such as minimally invasive technologies, that could reduce hospital-stay and therefore maximise the health and well-being of older citizens especially during public health crises.

¹ These policy recommendations were developed and proposed by a wide variety of organisations and healthcare professionals after first discussion with engaged individuals, organisations and groups

REFERENCES

- ⁱ (2020) WHO Europe Weekly Report 17-23 August. Available at: <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/weekly-surveillance-report>.
- ⁱⁱ (2016) J. d'Arcy et al. Large-scale community echocardiographic screening reveals a major burden of undiagnosed valvular heart disease in older people: the OxVALVE Population Cohort Study. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27354049#>
- ⁱⁱⁱ (2019) Heart Valve Disease Awareness Survey 2017, Magazine for Cardiologists in Belgium. Available at: <https://www.tvcjdc.be/nl/article/13106031/>
- ^{iv} (2004) Nath, J., Foster, E., Heidenreich, P.A. Impact of tricuspid regurgitation on long-term survival. *J Am Coll Cardiol*, 2004, 43 (3), 405-409. Available at: <https://pubmed.ncbi.nlm.nih.gov/15013122/>
- ^v (2019) Heart Valve Disease Awareness Survey 2017, op.cit.
- ^{vi} (2017) Vandresse, M. Perspectives démographiques 2016-2060 Population et ménages. Available at: http://statbel.fgov.be/sites/default/files/files/documents/bevolking/5.8%20Bevolkingsvoorzichten/bestanden/FOR_POP1660_11440_F%20print.pdf.
- ^{vii} (2017) European Heart Network. European Cardiovascular Disease Statistics 2017 edition. Available at: <http://www.ehnheart.org/images/CVD-statistics-report-August-2017.pdf>.
- ^{viii} (2020) OECD/The King's Fund, Is Cardiovascular Disease Slowing Improvements in Life Expectancy?: OECD and The King's Fund Workshop Proceedings, OECD Publishing, Paris. Available at: <https://doi.org/10.1787/47a04a11-en>.