The Potential of a New Population Screening: Preventing Osteoporotic Fractures

O Potencial de um Novo Rastreio Populacional: Prevenção de Fraturas Osteoporóticas

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Dear Editor,

We read with interest the publication from Quintal & Antunes,[1] which analyzed participation levels and income-related inequalities in all population-based cancer screening programs implemented in Portugal, using 2019 data. While the overall results are encouraging, the notable regional and socioeconomic disparities are concerning. We commend the authors while reflecting on the broader value of population-based screening.

In Portugal, population-based screening programs have been implemented since 1990 for breast and cervical cancer, and since 2008 for colorectal cancer (CRC).[2] According to a European review published in 2015,[3] cancer population-based screening – among other factors – has contributed to a reduction in mortality rates of approximately 30%, 80%, and 20% for breast, cervical, and CRC, respectively, across the late 20th and early 21st centuries.

The most recent available data on the performance of cancer screening programs in Portugal refers to 2023,[2] indicating geographic coverage rates by primary healthcare units ranging from 89.5% to 100%, and population-based screening rates between 17.2% and 55.5% (Table 1).

Although cancer screening may be considered a successful example in Portuguese population-based programs, could there be additional opportunities? Aren't other diseases justifying the urgent development of systematic and organized screening? We consider that osteoporotic fractures (OF), though fundamentally distinct from oncological diseases, represent a clear example of a condition with significant individual, societal, and economic burden – including mortality – that remains insufficiently recognized.

In Portugal, OF – particularly hip fractures – are associated with mortality rates comparable to or even exceeding those of certain cancers. The annual standardized mortality rate following a fracture in individuals aged ≥ 50 is estimated at 89 per 100 000 (data from 2019).[4] This contrasts with 27.7 per 100 000 women for breast cancer, 3.4 per 100 000 women for cervical cancer, and 32.1 per 100 000 for CRC.[2] Moreover, around 21% of patients die within the first year after a hip fracture,[5] a strikingly high rate, especially when considering that cancer-related deaths often occur over longer timeframes.

Internationally recognized as a public health problem, the incidence of OF in Portugal was 15.8/1000 in 2019 and is expected to increase 28.9% by 2034.[4]

Current evidence supports the implementation of osteoporotic fracture (OF) risk screening through predictive tools such as FRAX®, combined with traditional bone densitometry. This integrated approach is widely regarded as a relevant and critically important intervention strategy for addressing the issue.[6] Portuguese multidisciplinary guidelines recommend regular assessment and management of fracture risk in all women and men aged 50 and above,[7] preferably using the FRAX®Port algorithm. To change this paradigm, there are already ongoing Portuguese initiatives, such as the OPTIMIST-OP® project, which is aimed at implementing systematic screening programs for OF risk in primary healthcare.[8] We reiterate the need for urgent discussion and coordinated public health action, including input from key stakeholders (citizens, healthcare professionals, managers, among others).

AUTHOR CONTRIBUTIONS

TS: Drafting and critical review of the manuscript.

AC: Critical review of the manuscript.

RJOF: Conceptualization and critical review of the manuscript.

All authors approved the final version to be published.

COMPETING INTERESTS

The authors have declared that no competing interests exist.

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Table 1 – Data referring to population-based oncological screening performance indicators in Portugal (2023)[2]

Population-based screening	Population coverage rate (%)	Geographic coverage rate/primary healthcare functional unit (%)	Population screening rate (%)	Participation rate (%)
Breast cancer	98.7	100	55.5	56.2
Cervical cancer	59.2	91.0	55.3	93.5
Colorectal cancer	32.2	89.5	17.2	53.5

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