Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

We examined the sex ratio through the life course to see if the COVID-19 mortality sex-differential was the same at every age. We analysed data collated by the National Institute for Demographic Studies from national statistical agencies across England and Wales, France, Germany, Italy, Netherlands, Portugal, Korea, and Spain, covering an estimated population of 194 349 591 men and 201 715 364 women from the beginning of the pandemic until June 21, 2020.[9] Belgium and USA were not included due to presentation of data in different age categories.

77 652 men died and 59 591 women died. The overall male to female mortality sex ratio per 100 000 population was 1·4 (crude ratio 1·3). This ratio was not equal at all ages. For example, for people aged 0–9 years the ratio was 0·81. The ratio was 1·9 in the 40–49 years age group, 2·3 in the 50–59 year age group, 2·6 in the 60–69 years age group, and 1·65 in people older than 80 years (appendix p 1).

There was some variation across countries, although broadly the pattern was similar, and the numbers became too small for clear-cut interpretation (appendix p 3).

These data alter our understanding of male–female differences; the relationship is not straightforward, and efforts should now be made to understand risk based on the interaction of sex and age, along with other factors.

Hypotheses based on risk factors that are known to change with both sex and age seem to be the most probable explanations for the differences observed. These include differences in occupation, lifestyle (including smoking and alcohol use), medical comorbidities, or use of medications. These explanations reflect social and cultural factors related to gender rather than the biology of sex. Genetic explanations will need to consider the interaction of age, sex, and the risk factors previously mentioned through the life course, including gene expression and epigenetics.

Disaggregated data allow public health authorities to tailor mortality prevention strategies to prioritise those most at risk. Although we are developing indirect standardisation methods,[10] we urge nations to supply age and sex specific data, not only for an accurate description of the pandemic, but also for the calculation of directly standardised rates internationally—something WHO cannot do globally for lack of comprehensive sex and age group specific data.

We declare no competing interests.

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WSO and WHF joint position statement on population-wide prevention strategies

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In 2008, Rod Jackson and colleagues[1] proposed that prevention strategies for high-risk cardiovascular disease, based on screening individuals at high risk of cardiovascular disease, would deliver large benefits for the population. Simon Capewell[2] cautioned that these strategies could mislead health professionals and politicians into thinking they can tick the box reading mission accomplished and, with screening completed, cardiovascular disease prevention would be resolved. Both sides of this debate were based on assumptions and therefore did not reach consensus, but the high-risk approach to the prevention of cardiovascular disease has since been widely recommended and implemented.

There is reliable evidence from the Inter99 randomised controlled trial,[3] which included 59 616 people aged 30–60 years followed up for 10 years, and a Cochrane meta-analysis[4] of 15 randomised controlled trials, totalling 251 891 adults, that screening individuals in the general population for the risk of cardiovascular disease and risk factors (even with lifestyle counselling, as in the Inter99 trial[3]) has no significant effect on the incidence and mortality of ischaemic heart disease and stroke. At a population level, the age-standardised incidence and mortality of cardiovascular disease (including stroke) were decreasing before the implementation of high-risk prevention strategies, but have shown less decline since 2010 than the decline during the past 25 years.[5]

In some countries, such as the UK, the Netherlands, the USA, and New Zealand (specifically the Māori and Pacific people), the incidence and mortality of cardiovascular disease is increasing, particularly in middle-aged individuals. Furthermore, there is a paucity of robust

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economic evidence that screening for the risk of cardiovascular disease is cost-effective,[6] there is some evidence that screening might exacerbate socioeconomic inequalities,[7] and there are potential hazards in labelling people as being at low risk of disease, giving them false reassurance that they are protected from cardiovascular disease and compromising any motivation to control risk factors. Therefore, when communicating the absolute risk of cardiovascular disease to patients, the World Stroke Organization (WSO) has suggested that categorising people by low, moderate (mild), and high risk of disease (including heat charts) should be abandoned.[8]

Because many of the underlying causes of stroke and cardiovascular disease are well established, identifiable, and controllable, according to Geoffrey Rose,[9] there is not a major role for the high-risk strategy in the primary prevention of stroke and cardiovascular disease. Rather this strategy has a complementary role to the more powerful population-wide strategy. Unfortunately, today the priority is given to the high cardiovascular risk strategy, and this reality needs to be changed.[10,11] There is an urgent need to improve the primary prevention of stroke and cardiovascular disease, with priority given to population-wide primary prevention strategies[4] that would also strengthen global health systems and aid economic recovery in the wake of pandemics such as COVID-19. Further references in support of this position statement are listed in the appendix.

See Online for appendix

We declare no competing interests.

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Department of Error

Nehring P, Przybyłkowski A. Think twice before operating on a pancreatic mass: could it be IgG4-related disease? Lancet *2020;* **395:** *816*—In this Clinical Picture, the prednisone dosing schedule described in the first sentence of the third paragraph should have read "prednisone 40 mg once daily for 2 months". This correction has been made to the online version as of Aug 20, 2020.

Lee LYW, Cazier J-B, Angelis V, et al. COVID-19 mortality in patients with cancer on chemotherapy or other anticancer treatments: a prospective cohort study. Lancet *2020;* **395:** *1919–26*—In this Article, the authors, Contributors, Declaration of interests, and appendix cover have been updated. These changes have been made to the online version as of Aug 20, 2020.