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COMMENTARY

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Is there enough care to go around?

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This year's theme of International Nurses Day is 'Our Nurses. Our Future. The economic power of care', which is aimed at 'reshap[ing] perceptions and demonstrat[ing] how strategic investment in nursing can bring considerable economic and societal benefits'. The International Council of Nurses mentions that nursing often faces financial constraints and societal undervaluation. These constraints and undervaluation affect wage and non-wage job attributes in nursing, which have real impacts on the ability to attract and retain a sufficiently large nursing workforce. The workload is high, the work is emotionally and physically demanding, and nurses' exposure to different forms of violence in the workplace is widespread (Pariona-Cabrera et al., 2020; Spector et al., 2014). In addition, compared to other occupations requiring tertiary education, nursing is not well remunerated. As a result, further increasing nurses' labour supply has been challenging.

Indeed, over the past few decades, the demand for and supply of care has been increasing steadily with population ageing and improved survival of illnesses and disabilities. However, the supply of care has not been able to keep up with this increasing demand, and so, for many years, there has been a persistent shortage of nurses and other carers in many countries that is still ongoing (Darzi & Evans, 2016; Michaeli et al., 2022; World Health Organization (WHO), 2020). The COVID-19 pandemic put additional pressure on the health workforce, and especially on the nurses workforce. Among other reasons, the increase in labour demand and the insufficient labour supply in nursing (and the health workforce more generally) increased the health expenditure relative to a country's Gross Domestic Product (GDP) globally over the last decades (Our World In Data, 2024).

As a result, two balancing acts emerge: (i) balancing underconsumption (to reduce negative externalities of low health due to insufficient health care) and overconsumption (this requires reducing the moral hazard, that leads to excess usage of healthcare without corresponding health improvement) (Barr, 2020: 241–248) and (ii) balancing efficiency and market power through for example innovation to increase labour productivity without giving too much market power to intermediaries (such as private equity firms) who may extract rents. Getting these balances right is important for the sustainability of the healthcare sector.

In this commentary, we reflect on these balances by showing a number of labour dynamics patterns for nursing-qualified persons. We use recent administrative data from the Netherlands just before and after the COVID-19 pandemic (from 2015 to 2022), following two cohorts of nursing-qualified men and women for 4 years.[1] Although these results are just for one country, the Netherlands is similar in several dimensions to many other high-income developed countries and as such it can be considered representative of their experiences.

Examining the raw data on outflows from and inflows into healthcare for the entire population of Dutch registered nurses, Figure 1 shows that outflow from employment is larger for the 2020 Cohort than the 2016 Cohort, especially for men, who were already less likely than women to remain in employment in 2016. For the 2016 Cohort of female nursing-qualified workers in the health sector, 93.9% were still employed by December 2018, and 93.5% of the 2020 Cohort of similar women were still employed by December 2022. In contrast, 92.1% and 90.5% of nursing-qualified male workers in the health sector were still employed by December 2018 and December 2022, respectively. In addition, the registered nurses who remain employed are also less likely to remain employed in the health sector in 2020 than in 2016. And again, this is more pronounced for men who were already less likely than women to remain employed in the health sector in 2016.

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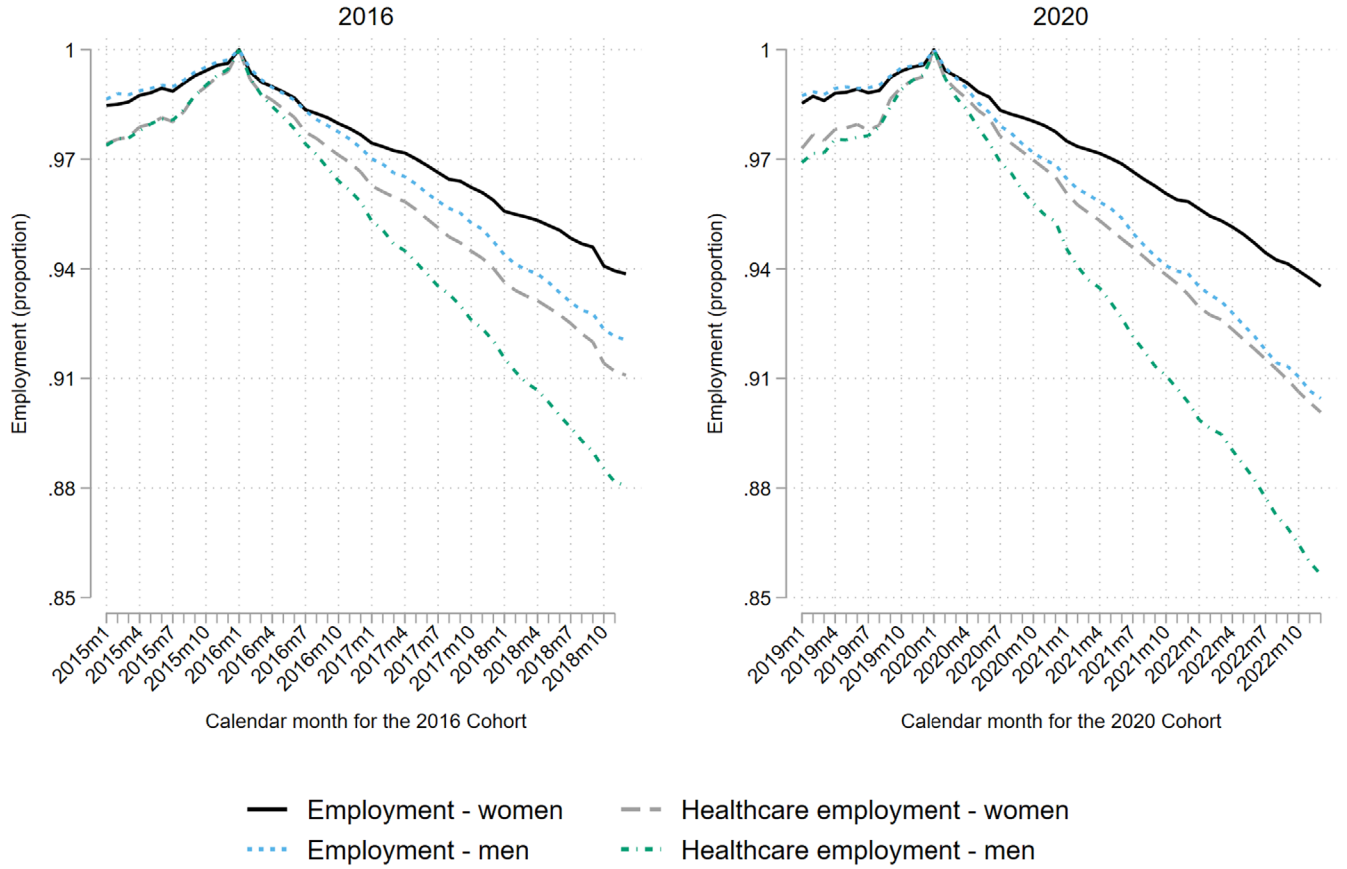


FIGURE 1 Health workforce employment dynamics for the 2016 Cohort and 2020 Cohort by sex. All workers were nursing-qualified and employed in healthcare at baseline (January 2016 or January 2020). The employment outcome equals one for employees and self-employed, and zero for non-employed people which include those who are unemployed or out of the labour force. The employment in healthcare outcome equals one for persons employed in the health sector, and zero for persons employed outside the health sector and for non-employed persons. Administrative data covering 2015 to 2022 from the Centraal Bureau voor de Statistiek (CBS, or Statistics Netherlands), authors' own calculations.

Considering narrowing gender gaps in the labour market, lower employment by nursing-qualified men in the health sector increases female/male segregation in the labour market as it further increases the relative share of women in nursing. When trying to attract more men into the nursing workforce, their much lower retention rate would need to be addressed.

Of the nursing-qualified workers remaining employed in the healthcare sector, an increasing proportion moves from being an employee to self-employment. Self-employment is attractive for nurses in the Netherlands (and other countries) for a variety of reasons: higher autonomy and flexibility through more freedom to negotiate hourly pay and timing of shifts; their bargaining power is strong, resulting from high labour demand and relatively low labour supply, leading to labour shortages. For employers, self-employment is attractive because of reduced risk, since no annual or sick leave, no employer premiums, and no pension schemes are required. Figure 2 shows that the proportion making this transition has increased from the 2016 to 2020 cohorts of nursing-qualified workers. Men were already more likely to make this transition in 2016 than women (just under 3% versus just under 2% over a period of 3 years), and in 2020, this had increased by just under 1 percentage point for women and around 1.5 percentage points for men, increasing the difference between men and women. The question is whether workers' incentives for this large increase in the transition from salaried employment to self-employment are explained by push or pull factors.

In contrast to 'push' factors of self-employment where individuals are pushed towards self-employment because they cannot find a salaried position, it seems people may currently be 'pulled' towards self-employment to access better employment conditions. For example, our recent research paper (Kalb & Meekes, 2024) shows that younger (18–35) workers and single mothers with children up to 12 years are particularly likely to transition to self-employment. Although the number of self-employed nursing-qualified workers is still small relative to the number of employees, it creates problems in terms of cost and in terms of additional pressure on employees. More specifically, disadvantages of a high proportion of self-employed in the healthcare sector include (i) higher hourly wage rates (through bargaining power) and additional agency fees per working hour per person (as self-employed nurses often work through an intermediary agency) reducing the budget for salaried employment and (ii) less popular shifts falling more on salaried nurses (as self-employed workers can set their own terms for when and how many hours they

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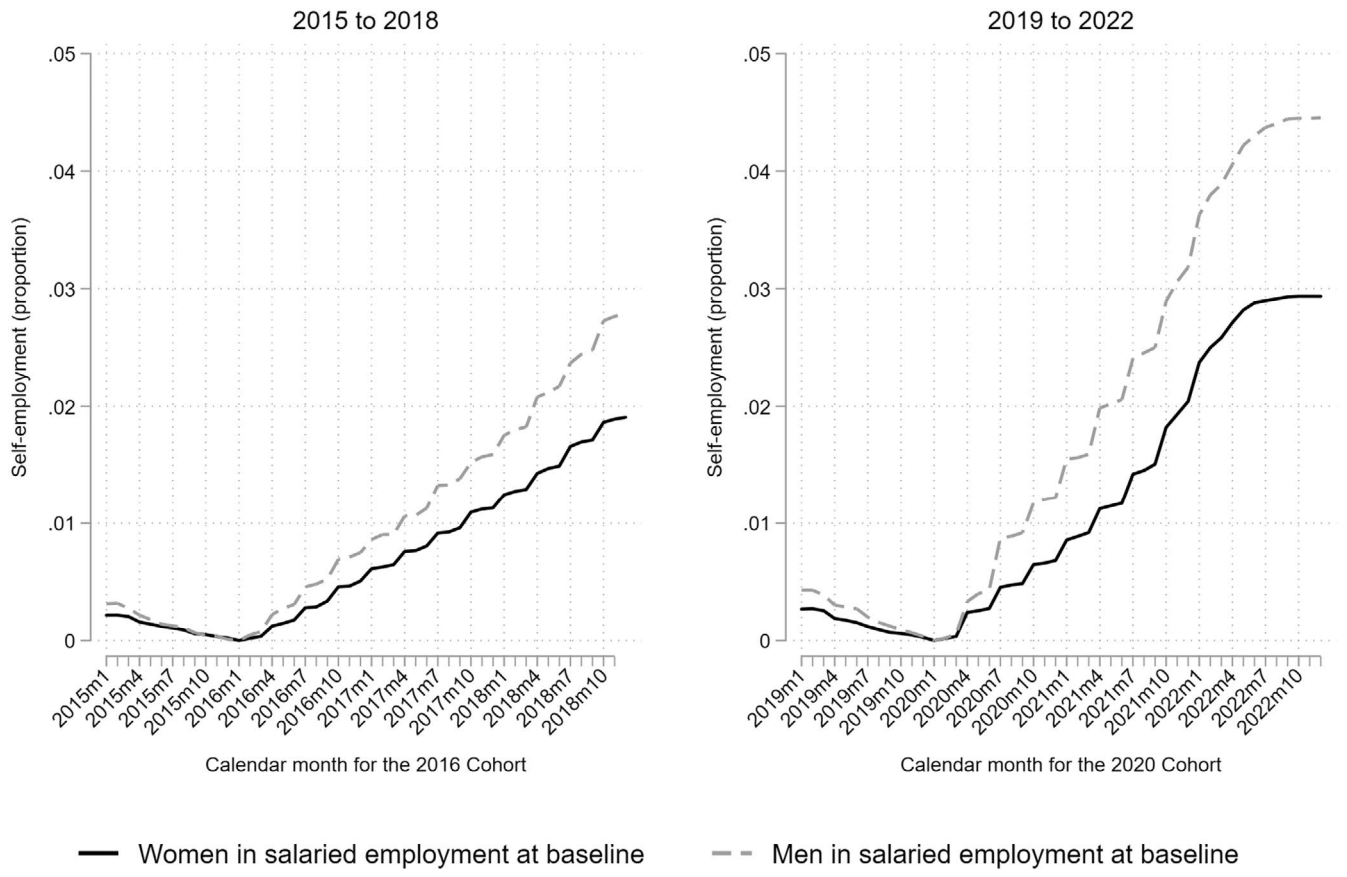


FIGURE 2 Health workforce transition from salaried employment to self-employment for the 2016 Cohort and 2020 Cohort by sex. All workers were nursing-qualified and worked as employee in the healthcare sector at baseline (January 2016 or January 2020). The self-employment outcome equals one for self-employed, and zero for everyone else. Administrative data covering 2015 to 2022 from the CBS, authors' own calculations.

work) making it more difficult to attract and retain salaried nurses. This mechanism generates a positive feedback process which reinforces the incentive to become self-employed. In addition, increased self-employment leads to less job security in the nursing profession and the risk of income shocks due to illness or unemployment is transferred to the self-employed nurses.

Given the high demand for nurses' labour supply which was amplified during the pandemic, we also show the inflow of two groups of nursing-qualified workers into health sector employment. The first group consists of women and men with a nursing qualification in the 2016 and 2020 Cohort who were not employed at baseline. The second group consists of women and men with a nursing qualification who were employed outside the healthcare sector at baseline. Figure 3 shows that non-employed men and women display similar patterns of having exited the health sector in the year before the baseline month (with just under 70% still in the health sector in January 2015 and January 2019). In 2020, there were slightly higher proportions of men and women who moved from the health sector to employment outside the health sector during the year preceding baseline. Women were more likely to have exited the health sector in the year preceding the baseline month than men, but the difference narrowed from 2016 to 2020.

After the baseline month, men in both years and in both groups are less likely to (re-)enter the health sector than women. Men and women who were employed outside the health sector were less likely to (re-)enter the health sector than non-employed men and women. Although by the end of the 3 years, the proportion of men and women who (re-)enter the health sector is very similar in 2018 and 2022, the patterns differ to some extent in the first year after baseline (2016 and 2020), with especially non-employed men and to some extent non-employed women being slightly more likely to enter the health sector in 2020 than in 2016, most likely due to the pandemic which commenced in 2020.

It may seem that an easy solution to attract more front-line workers, like nurses, would be to increase their wages. Figure 4 shows the evolution of hourly wages from 2015 to 2022. However, as a dollar today does not buy the same as a dollar 5 years ago, we need to account for this by using "real" wages where the "nominal" wage is adjusted for inflation (i.e. adjusted for how much more expensive goods and services have become). The figure shows that real wages for nursing-qualified workers in the health sector decreased from January 2016 to January 2020 (and they are seen declining from 2016 to 2019). An increase is evident from late 2019 to early 2021, when nominal wages were substantially increased

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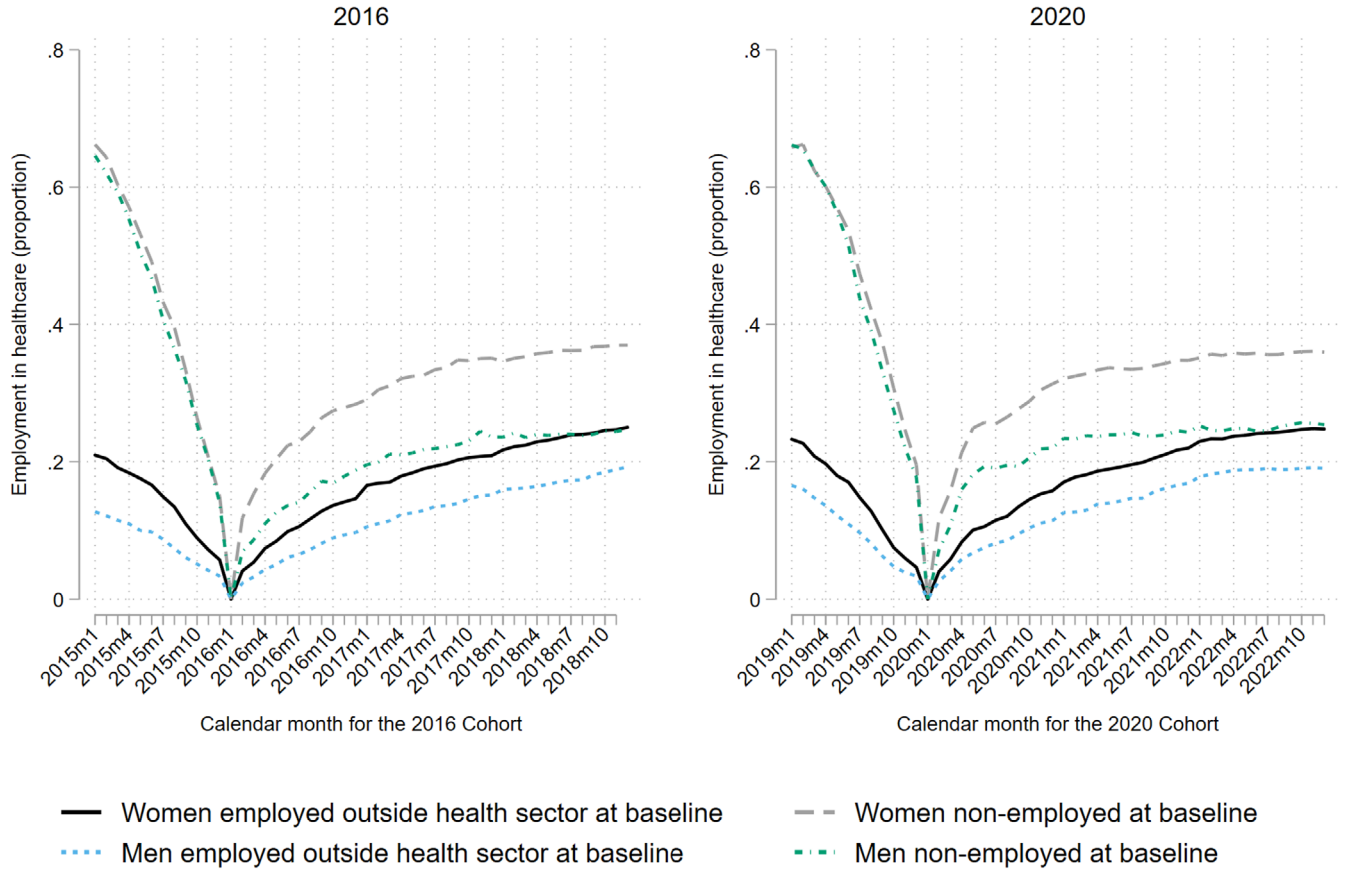


FIGURE 3 Health workforce transitions from non-employment and employment outside the health sector at baseline (January 2016 or January 2020) to healthcare employment. All workers were nursing-qualified and not employed in the healthcare sector at baseline (January 2016 or January 2020). The employment in healthcare outcome is not conditional on being employed: that is, its value equals zero for the non-employed and for those working outside the health sector. Administrative data covering 2015–2022 from the CBS, authors' own calculations.

exceeding the level of inflation at the time. However, this was of short duration as the Netherlands (like many other countries) faced very high inflation rates which quickly outstripped the nominal wage increases that had been provided, thereby reducing real wages by the end of 2022.

The graph also clearly shows that men earn nearly 3 euros per hour more than women, although the gender pay gap for nursing-qualified workers narrowed over our sample period. This is similar to the situation in many other occupations, but it is perhaps particularly striking in an occupation that is so dominated by women. It is outside the scope of this commentary, but it is an observation that certainly warrants further investigation to understand what drives these differences.

The developments in outflows, inflows and transitions to self-employment highlight the ongoing challenging task of making labour supply keep up with the increasing labour demand for nurses. The developments in wage levels show that the financial rewards in the nursing profession are unlikely to help with attracting and retaining nurses in the health workforce. In addition, from the literature we already know that non-wage job characteristics are equally, if not more important, so just increasing wages is unlikely to be sufficient (e.g. see Di Tommaso et al., 2009; Duijs et al., 2023; Wall, 2013).

Balancing family and work is often important for this largely female workforce, so we need to ensure that this is feasible and that employment conditions in nursing allow for people's different circumstances (e.g. single parents vs partnered parents). Given that individuals are pulled towards self-employment, we ask whether self-employment is indeed a solution to labour supply shortages or whether self-employment threatens the sustainability of the healthcare sector; alternatively, could salaried employment offer more of what self-employment offers (e.g. more autonomy, especially in terms of work schedules that fit around family and other responsibilities) without some of the disadvantages of self-employment?

In addition, a key policy option may be to increase productivity in the healthcare sector so as to limit further needs for increases in healthcare supply. Examples of how labour productivity could be improved include adopting effective and efficient technologies that facilitate caregiving (e.g. telehealth which gained popularity during the COVID-19 pandemic) and/or that allow better targeting of more

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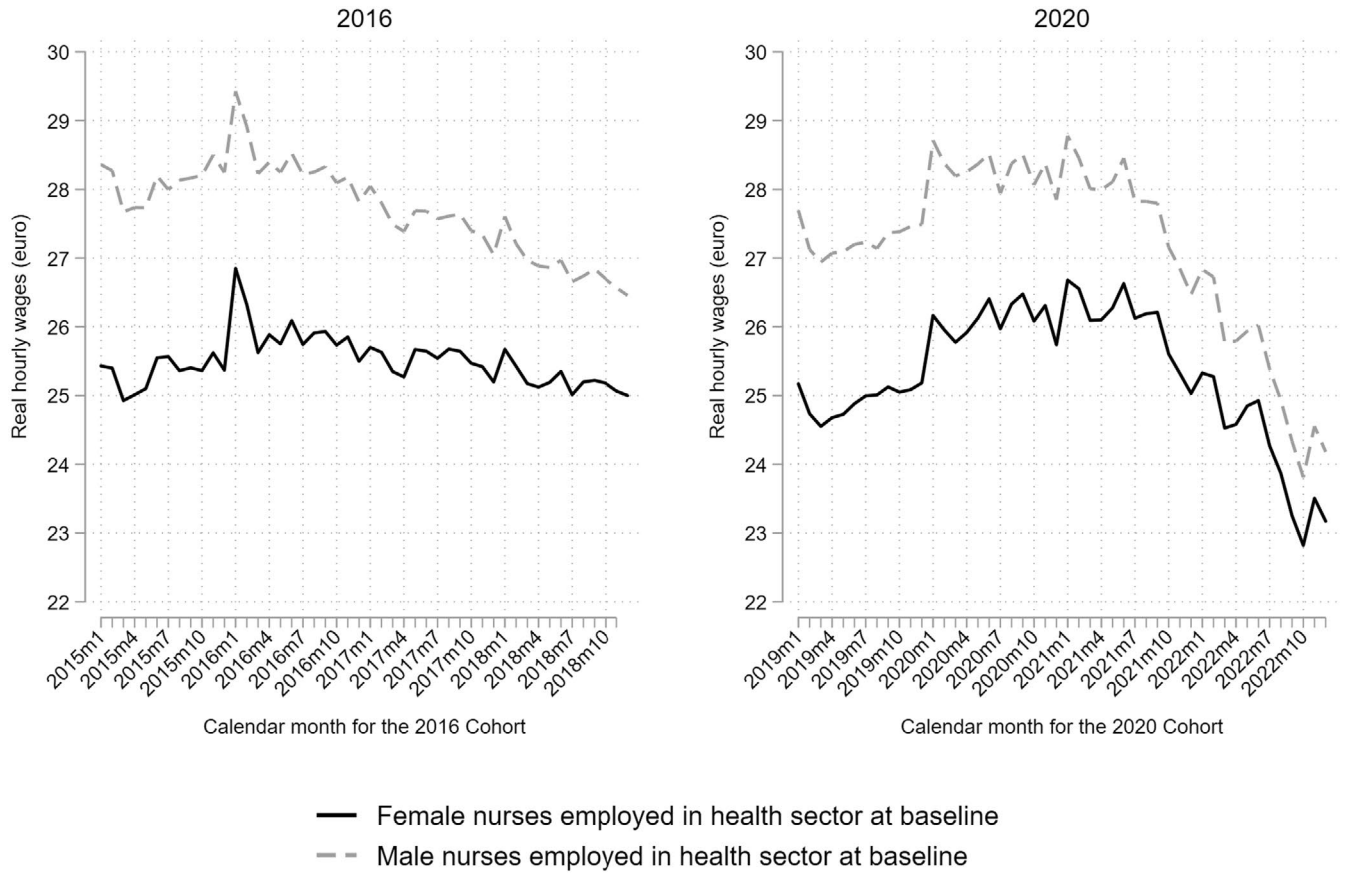


FIGURE 4 Development of real hourly wages for men and women who were nursing-qualified workers in the health sector at baseline (January 2016 or January 2020). All workers were nursing-qualified and employed in the healthcare sector at baseline (January 2016 or January 2020). Hourly wages are observed conditional on employment. Hourly wages are inflated/deflated and reported in December 2022 euros. Administrative data covering 2015 to 2022 from the CBS, authors' own calculations.

labour-intensive care options (e.g. checking in via app or phone with people receiving care to decide whether an in-person visit is needed today). In addition, healthcare demand could be reduced through policy options that increase social cohesion (neighbours or larger communities that support each other socially), which could reduce some of the less complex care needs, thus reducing the burden on the health sector.

AUTHOR CONTRIBUTIONS

Guyonne Kalb: Conceptualization, Funding acquisition, Investigation, Visualization, Writing—original draft, Writing—review and editing; **Jordy Meekes**: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Visualization, Writing—original draft, Writing—review and editing.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Under certain conditions, the microdata used in this commentary are accessible for statistical and scientific research. For further information, microdata@cbs.nl and https://www.cbs.nl/en-gb/our-services/customised-services-microdata/microdata-conducting-your-own-research.

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ENDNOTE

[1] All men and women who were registered as a nurse in either January 2016 or in January 2020, were followed for 1 year before this baseline date and for 3 years after this date. Considering just the registered men and women who were employed in healthcare at baseline, there were 143,113 such women in 2016, which increased by 6.9% to 152,920 in 2020. The nursing occupation is much less popular with men: in 2016, there were 21,255 such men, which decreased by nearly 5% to 20,236 men 4 years later. As a result the proportion of male nurses has decreased from 12.9% of all nurses in 2016 to 11.7% of all nurses in 2020.

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