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Life-course income trajectories of men and women in Norway: implications for self-rated health in later life

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Background: Socioeconomic inequalities in health are well-established, but studies addressing lagged effects of income or of fluctuations in income over the life course are relatively rare. The current study aims to (i) identify and describe life-course income trajectories for men and women who are currently in later life; and (ii) assess the association of income trajectories with self-rated health in older adults. **Methods:** The study sample consisted of 1625 men and 1634 women born between 1937 and 1955 who participated in the third wave of the Norwegian Life course, Ageing and Generation Study. Latent class growth analyses were used to estimate dominant income trajectories from ages 30 through 62 in men and women. Stepwise logistic regression analyses were specified to analyze the association of income trajectories with self-rated health in later life. **Results:** Four trajectories in women and three trajectories in men were estimated as dominant patterns of income over the life course. Differences in the level of income were considerable at age 30 and accumulated over time. Continued exposure to low income showed statistically significant higher odds for poor self-rated health in older men and women. This association remained significant after taking differences in educational attainment, working life, family formation and accumulated wealth into account. **Conclusion:** The findings suggested remarkable rigidity in income groups that had formed by age 30. A significant share of men and women remain mired in relatively low-income status across the life course with negative implications for health in later life.

Introduction

Sustaining an ageing population requires increased attention to prolonging good health throughout the life course, including later life. Improved life expectancy and more healthy life years have predominantly occurred among higher socioeconomic status (SES) groups, thereby contributing to an increase in health inequalities over time,[1] and to new patterns of unequal ageing.[2–4] Also in the Nordic countries with extensive welfare states, health inequalities persist well into old age.[5,6] Accumulation of advantage/disadvantage across the life course has been proposed as one of the key perspectives to understanding late-life inequalities.[7–9] Income is one of the SES resources that people use to gain a health advantage.[10] Over the life course, differences in income render differences in material and coping resources (e.g. beneficial social connections and control), thereby contributing to differential exposure to stressors as well as to differential vulnerability.[10] There is widespread evidence for the adverse associations of lower income with a range of different health outcomes, i.e. life-expectancy,[11–14] self-rated health,[15] physical functioning[16,17] and health-related quality of life.[18] Many studies have however ignored the lagged effects of income or fluctuations in income over the life course.[19,20] Longitudinal studies on income volatility have indicated that long-term income is stronger related to health than current income, that income level is more significant than income change, and, more specifically, that persistent poverty is more harmful for health than occasional episodes.[21–23] Whereas some studies indicate that income loss (absolute or relative rank) appears to have a greater effect on health than an increase in income,[21,24] others suggest that higher income volatility in itself has negative health consequences.[25] Findings from an earlier Norwegian study[26] show that persons with at least two substantial falls in income or at least one substantial increase (or vice versa) experienced increased mortality.

Comprehensive knowledge about the relationship between income and health over time should include three dimensions of income: level, trend and stability.[22,27] Studies of income *trajectories* incorporate all three dimensions and address both how much people earn each year and how these earnings change over time.[28] Recent studies have demonstrated the importance of income trajectories for mortality,[29] alcohol-attributable deaths[30] and men's physical and mental health in midlife.[28] Moreover, a study on women's lifetime economic activity[31] illustrated the importance of different activity trajectories for self-rated health in older women. Although increasing in number, research assessing the association of life-course income trajectories with health in later life is still rare.

With the sustainability of public welfare benefits in later life high on the political agenda in Europe, updated knowledge on the linkage between life-course income and health is fundamental for redistribution policies, including service provision and pension reforms, the use of taxes and social transfers. Hence, the objectives of the current study are: (i) to identify and describe dominant life-course income trajectories for men and women who are currently in later life; and (ii) to assess the extent to which group-based income trajectories are associated with self-rated health in older adults.

Methods

We used data from the third wave of the longitudinal Norwegian Life course, Ageing and Generation study (NorLAG3),[32] which collects data from a nation-wide, population-based and stratified sample of adults born between 1922 and 1966. NorLAG combines survey data linked to retrospective data from the public registers. Data have been collected by Statistics Norway in line with existing rules in the Act No. 54 of 16 June 1989 relating to official statistics and Statistics Norway. Study participation and linkages to public register data are

based on informed consent. NorLAG3 was conducted in 2017, and the full sample includes all persons who participated in at least one of the two previous waves of the NorLAG study (response rate 68.2% and $N = 6069$). As is common in most longitudinal studies, selective attrition is a challenge also in NorLAG: respondents with higher education and good self-rated health are more inclined to participate. We refer to NorLAG's cohort profile[32] for more detailed information about design, samples and response rates. The analytical sample in the current study comprises 1625 men and 1634 women born between 1937 and 1955.

Measures

'Pensionable income' was used to identify income trajectories. Data on annual income are available for the period 1967–2017 through linkages with the tax registers. In Norway, pensionable income constitutes the basis for retirement earnings and other retirement benefits and is defined as the annual (gross) sum of personal income: wages and income from self-employment. Annual pensionable incomes were calculated in G-units for each respective year. G is the abbreviation for National Insurance Basic Amount and indicates a basic amount in NOK that the Norwegian Labour and Welfare Administration uses to calculate benefits and pensions. This amount is updated every year, i.e. the annual amount corresponded to 5400 NOK in 1967 and to 93 634 NOK in 2017. We used the respondent's birth year to calculate each respondent's annual income (in G-units) at ages 30 through 62. Since all persons are included in the public registers, there is no missing data on pensionable income. Zero annual pensionable income equals no personal income, which can occur in those who have not yet entered the labour market, who have retired early (before 62), or who never were economically active. All in all, 11 persons had a value of 0 across the whole period of 33 years, and 32 persons had zero pensionable income across 30 years or more. 'Self-rated health' was measured through a single item from the telephone interview in 2017: 'In general, would you say your health is excellent, very good, good, fair or poor'. Following earlier studies, we dichotomized this item into 0 and 1 with 1 indicating fair/poor self-rated health.

In studying the association of income trajectories with health in later life, it is important to include factors that may be central in shaping health as well as different incomes across the adult life course. In addition to age at the time of the interview, we included educational attainment, present employment status and current/last occupational group. Moreover, differences in income trajectories may develop simultaneously with differences in family formation, i.e. getting married/divorced and having children. To assess whether the classification of life-course income trajectories provides additional explanatory value beyond accumulated financial resources, we also included wealth at the time of the interview in 2017.

'Highest level of education' in 2017 was derived from the public registries (Norwegian Standard Classification of Education Revised 2000) and grouped into three categories: compulsory, secondary and tertiary education. 'Present employment status' was based on information from the telephone interview and coded as a dichotomous variable with 1 indicating being currently employed. 'Occupational group' reflects previous (latest) and/or current occupation measured through the telephone interview and classified according to the standard code list (STYRK 98 2016-12). For our analyses, we used the following categories: Higher managerial/professional, Intermediate, Routine, Manual and Unknown profession. 'Living with a partner/spouse' was based on a combination of register data for civil status and self-report in the telephone interview in 2017 and was coded 1 for living with a partner or spouse and 0 otherwise. Annual data on the respondent's civil status were available for 1975–2017 and used to assess if the respondent 'never' had been 'divorced' (=1), with 0 indicating at least one divorce since 1975. Data on the 'number of children' were based on register information and self-reports from the telephone interview. 'Taxable gross wealth' in 2017 is available through the linkages with the tax register and comprises taxable real capital and taxable gross financial capital rounded to the nearest 10 000 NOK. This was recoded into quartiles with 1 indicating a gross wealth of less than 550 000 NOK; 550 000–1 120 000; 1 120 000–2 020 000 and more than 2 020 000 NOK.

Statistical analyses

We used latent class growth analyses (LCGA) to estimate income trajectories between ages 30 and 62 separately for men and women. LCGA, also referred to as finite mixture models, aims to categorize individuals into homogeneous subpopulations or classes—in our case the class of people with a similar income trajectory.[33] A class is described in terms of the intercept (starting level) and slope (change per year). We also estimated quadratic slopes to account for non-linear change in income. The LCGA estimates latent class probabilities that is the proportion of individuals in the total sample with a specific income trajectory, and for each individual the predicted class-membership, based on the highest posterior probabilities. We selected models based on successful convergence, parsimony (as indicated by the lowest BIC value), a high classification quality or entropy (close to 1), and the meaningfulness of the trajectories.[34] LCGAs were conducted with Mplus Version 8.4.[35] The predicted class-membership was used in subsequent analyses using SPSS version 27. We applied descriptive statistics (chi-square, ANOVA) to analyse the characteristics of the income trajectories of men and women. The association of the trajectories with poor self-rated health in later life was assessed with stepwise binary logistic regression analyses. To rule out that the strength of the association of income trajectories with health is affected by the different time intervals for younger and older respondents between life-course incomes and health measured in 2017, we also checked the presence of interaction effects of age with classifications of income trajectories. For all statistical tests, we applied a critical value (α) of 5%.

To account for the presence of potential reversed causation effects of health problems early in life affecting opportunities for obtaining higher earnings, we repeated the logistic regression analyses by excluding 146 persons who indicated in the telephone interview that they had a chronic health problem with an onset before age 30. This did not affect the results or conclusions in any substantial manner (analyses available on request). We therefore show the results for the whole sample. In addition, we conducted the same multivariate logistic analyses for good self-rated health, with 1 indicating the two most positive responses. Findings confirmed that life-course income affects both ends of the self-rated health continuum (see Supplementary tables S1 and S2).

Results

A four-class solution in women and a three-class solution in men provided the best description of the trajectories of pensionable income in the samples (Fit-statistics for the LCGA are shown in Supplementary table S1). Figure 1 presents the observed average annual pensionable incomes in G-units and their 95% confidence intervals for these dominant groups of income trajectories in women and men, respectively. Forty-four percent of the women could be placed in the category that can be labelled 'Low start and medium Increase (LI)' of pensionable income over the life course. Thirty percent can be categorized as 'Stable Medium (SM)' income, 23% as 'Stable Low (SL)' and 3% as 'High and Increasing (HI)' income. Among men, 53% can be categorized as having a 'Stable Medium (SM)' pensionable income over the life course, 36% as 'Stable Low (SL)' and 10% as 'High and Increasing (HI)' income.

Table 1 gives an overview of the socioeconomic and life-course characteristics of the dominant income trajectories in men and women. For women, both clusters HI and SM are describing those with high education, working in higher managerial/professional positions and who initiated family formation later in life compared to

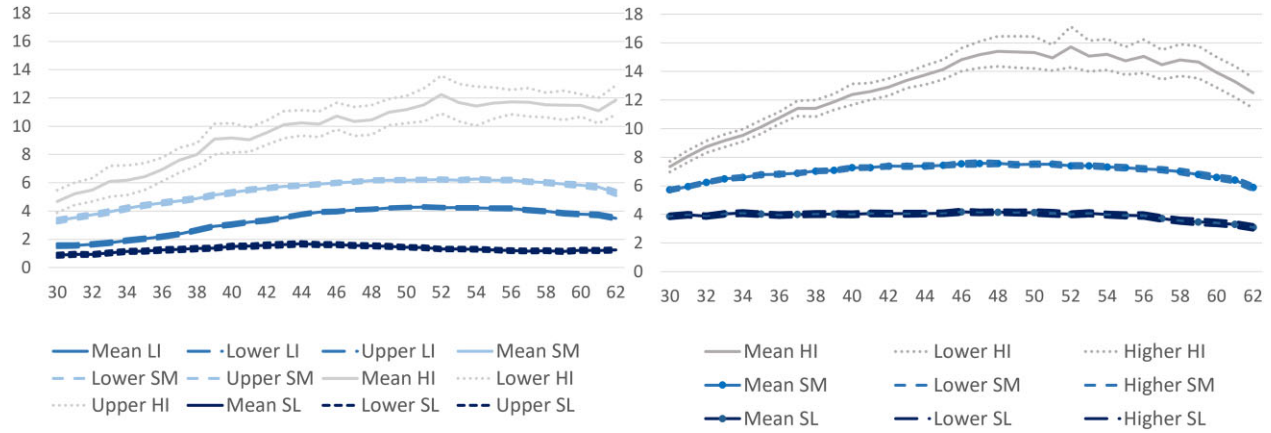

Figure 1 Observed life-course income trajectories (pensionable income in G-units and 95% confidence intervals) for women (left) and men (right) born 1937–55. LI: low start and medium increase; SM: stable medium; HI: high and increasing; SL: stable low.

Table 1 Cluster characteristics for women ($N = 1634$) and men ($N = 1625$) born 1937–55

	Women					Men			
Latent (income) cluster	**LI**	**HI**	**SM**	**SL**	***P*-value**	**HI**	**SM**	**SL**	***P*-value**
Percent of sample	43.6	2.8	30.3	23.3		10.3	53.3	36.4	
Education (%)									
Compulsory	15.9	0	5.1	31.5	<0.001	1.8	7.0	30.2	<0.001
Secondary	56.1	10.9	30.3	53.4		33.0	51.3	55.7	
Tertiary	27.9	89.2	64.6	15.1		65.3	41.7	14.0	
Age at interview in 2017	69.1	66.9	68.5	70.4	<0.001	69.1	69.1	68.8	0.568
Gross wealth (in 10 000 Norwegian Kroner)	124	383	172	119	<0.001	689	221	139	<0.001
Income in G-units age 50	4.3	11.2	6.1	1.4	<0.001	15.3	7.5	4.1	<0.001
Fair/poor self-rated health in 2017 (%)	21.3	13.0	21.0	48.3	<0.001	16.8	24.5	37.4	<0.001
Age onset health limitation	61.5	71.0	60.0	56.0	0.033	64.9	59.9	55.1	0.017
In labour force in 2017 (%)	27.5	65.2	34.8	10.6	<0.001	51.5	36.2	33.1	<0.001
Occupational group (current or former) (%)					<0.001				<0.001
Higher managerial/professional	19.8	84.8	55.6	8.4		67.7	41.2	16.6	
Intermediate	19.8	10.9	25.5	11		24.6	22.6	11.2	
Routine	45.2	2.2	14.5	40.7		1.2	11.7	15.6	
Manual	9.3	0	2.2	15.2		5.4	20.1	48.6	
No known occupation	5.9	2.2	2.2	24.7		1.2	4.4	8.1	
Living with partner in 2017 (%)	64.7	60.9	57	59.6	0.048	85.0	82.2	72.6	<0.001
Never married 1975–2017 (%)	2.9	10.9	11.7	3.9	<0.001	1.2	4.8	9.1	<0.001
At least once divorced 1975–2017 (%)	30.2	34.8	34.5	27.3	0.118	34.7	26.6	31.1	0.041
Number of children	2.3	1.5	1.7	2.4	<0.001	2.3	2.2	2.1	0.016
Age first childbirth	24.0	28.8	25.6	23.6	<0.001	27.2	26.9	27.5	0.269

Income trajectories women: LI, low and increasing; HI, high and increasing; SM, stable medium; SL, stable low.
Income trajectories men: HI, high and increasing; SM, stable medium; SL, stable low.

clusters SL as well as LI. The women in the HI cluster represent a relatively small group of women who distinguish themselves by having entered the labour force relatively late (mean age 24 years) and by a higher percentage that is still working in 2017 (65%). The largest cluster (LI) differs from the SM cluster in that they less often have higher education, have/had more often routine type of work, are more frequently married in 2017, and have, on average, a higher number of children. Their mean pensionable income increased in their 40s (see also figure 1), suggesting that they experienced a period of looking after a home/family, followed by either full-time or part-time work. The SL cluster represents women with lower education, with three out of four working in routine or manual jobs and one out of four having no information on the occupation. Most of these women are not or no longer in the work force and they are, on average, slightly older than the women in the other clusters.

Similar to the HI cluster in women, the HI cluster in men reflects those with the highest level of education, the highest percentage in managerial or professional groups, those who entered the labour market at a higher average age and who are more likely to still be in the labour force compared to the other male clusters. Unlike HI women however, HI men are more likely to be or have been married and to have, on average a higher number of children compared to men in the other income groups. The SL cluster for men is characterized by lower levels of education, a majority in manual jobs, a relatively young average age of entering the labour market, a lower percentage who is living with a partner and a higher percentage who never got married compared to the other two male clusters.

The estimated life-course income trajectories were used in stepwise binary logistic regression analyses to investigate the associations with poor self-rated health in later life. In the first step, we show the unadjusted odds ratios for the dominant income trajectories, in the second step, we control for age and other markers of SES, and in the third step, we additionally include an attachment to family and working life. The results from these analyses are presented in tables 2 (women) and 3 (men). For both men and women, being in the stable low-income group (SL) is associated with significantly worse self-rated health compared to any other income group. This association is independent of age, education, employment status, family formation and accumulated wealth. Higher levels of wealth and number of children were significantly associated with better self-rated health in

Table 2 Results stepwise logistic regression analyses predicting poor self-rated health in 2017 women ($N = 1621$)

		Unadjusted			Adjusted			Adjusted	
	B	OR (95% CI)	*P*-value	B	OR (95% CI)	*P*-value	B	OR (95% CI)	*P*-value
Cluster group life-course income (reference: stable low SL)									
Low and increasing income (LI)	−0.72	0.49 (0.39–0.63)	<0.001	−0.54	0.58 (0.44–0.77)	<0.001	−0.51	0.60 (0.46–0.80)	<0.001
High and increasing income (HI)	−1.83	0.16 (0.07–0.39)	<0.001	−1.03	0.36 (0.13–0.91)	0.030	−1.00	0.37 (0.14–0.95)	0.038
Stable medium income (SM)	−1.26	0.28 (0.21–0.38)	<0.001	−0.82	0.44 (0.31–0.62)	<0.001	−0.88	0.42 (0.29–0.60)	<0.001
Age at time of interview				0.02	1.02 (0.99–1.04)	0.060	0.01	1.00 (0.98–1.03)	0.758
Level of education (1: Compulsory–3: Tertiary)				−0.20	0.82 (0.67–1.00)	0.050	−0.19	0.83 (0.68–1.02)	0.074
Occupational group (reference: No known occupation)									
Higher managerial/professional				−0.43	0.65 (0.40–1.04)	0.075	−0.37	0.69 (0.43–1.11)	0.126
Intermediate				−0.17	0.85 (0.54–1.34)	0.479	−0.13	0.88 (0.55–1.40)	0.592
Routine				−0.29	0.75 (0.50–1.36)	0.154	−0.26	0.77 (0.52–1.15)	0.205
Manual				−0.18	0.83 (0.99–1.04)	0.470	−0.13	0.89 (0.53–1.44)	0.598
Wealth in 2017 (1: lowest quartile–4: highest quartile)				−0.19	0.83 (0.74–0.92)	<0.001	−0.23	0.79 (0.71–0.89)	<0.001
In labour force in 2017 (reference: no)							−0.45	0.64 (0.47–0.87)	0.004
Living with partner in 2017 (reference: no)							−0.24	0.79 (0.61–1.01)	0.063
Never divorced (reference: at least once)							−0.15	0.86 (0.81–0.99)	0.243
Number of children							−0.11	0.89 (0.81–0.99)	0.027

Table 3 Results stepwise logistic regression analyses predicting poor self-rated health in 2017, men ($N = 1591$) born 1937–55

		Unadjusted			Adjusted			Adjusted	
	B	OR (95% CI)	*P*-value	B	OR (95% CI)	*P*-value	B	OR (95% CI)	*P*-value
Cluster group life-course income (reference: Stable Low—SL)									
High and increasing income (HI)	−1.04	0.35 (0.23–0.55)	<0.001	−0.65	0.52 (0.32–0.86)	0.010	−0.55	0.57 (0.35–0.95)	0.029
Stable medium income (SM)	−0.58	0.56 (0.44–0.70)	<0.001	−0.37	0.69 (0.53–0.90)	0.006	−0.35	0.71 (0.54–0.92)	0.011
Age at time of interview				0.03	1.03 (1.00–1.05)	0.007	0.01	1.00 (0.97–1.03)	0.763
Level of education (1: Compulsory–3: Tertiary)				−0.30	0.74 (0.60–0.91)	0.004	−0.32	0.73 (0.59–0.90)	0.003
Occupational group (reference: No known occupation)									
1. Higher managerial/professional				−0.38	0.69 (0.41–1.15)	0.152	−0.19	0.83 (0.49–1.39)	0.475
2. Intermediate				−0.41	0.66 (0.39–1.13)	0.128	−0.35	0.70 (0.41–1.20)	0.193
3. Routine				−0.48	0.62 (0.36–1.07)	0.086	−0.41	0.66 (0.39–1.15)	0.142
4. Manual				−0.39	0.68 (0.42–1.10)	0.116	−0.22	0.80 (0.49–1.31)	0.377
Wealth in 2017 (1: lowest quartile; 4: highest quartile)				−0.13	0.88 (0.78–0.98)	0.016	−0.10	0.91 (0.81–1.01)	0.077
In labour force in 2017 (reference: no)							−0.77	0.46 (0.34–0.63)	<0.001
Living with partner in 2017 (reference: no)							−0.21	0.82 (0.61–1.09)	0.165
Never divorced (reference: at least once)							−0.03	0.97 (0.75–1.27)	0.834
Number of children							−0.08	0.93 (0.84–1.03)	0.140

women but not in men. None of the interactions between age and income group were statistically significant, strengthening our finding of an independent association of life-course income trajectories with health in later life (analyses available on request).

Discussion

The present study identified and described dominant life-course income trajectories and assessed their implications for self-rated health among Norwegian men and women who are currently in later life. Four trajectories in women and three trajectories in men were estimated as the dominant patterns of income over the life course of cohorts born between 1937 and 1955. In line with the accumulation of disadvantages perspective, continued exposure to low income over a 33-year period was associated with a significantly higher probability of poor self-rated health in older men and women. This association remained significant also after taking differences in educational attainment, working life, family formation and accumulated wealth into account. Similar to a recent study from USA,[28] the stable-low-income groups constituted a substantial share (23% of the women and 36% of the men) of our study samples, signifying that some men and women remain mired in relatively low-income status across the life course. These groups are not limited to persons considered poor in terms of standard definitions of poverty. Life-course income should thus be considered in research assessing what determines health in later life. Below, we discuss the main findings related to the dominant income trajectories in men and women and their implications for health.

Dominant income trajectories in men and women

The findings in the current study suggested remarkable rigidity in income groups that had formed by age 30. Absolute differences in the level of income were considerable at age 30 and accumulated over

time, peaking around age 50, whereby the highest initial incomes showed the steepest increase. Similar trajectories were found for men and women, but the additional 'low-and increasing-income' trajectory in women reflects a gendered trajectory with distinct periods where women cared for family and raised small children followed by increased attachment to the labour market. Moreover, throughout the life course, women had, on average, lower pensionable incomes than men. Average income at age 50 was three times lower for women in the stable low-income group than for men in the comparable group. A major characteristic of the women in this latter group is a weak attachment to the labour market over the life course and an emphasis on family care. Men in the stable low-income group had been working predominantly in manual professions. Norwegian men and women born between 1937 and 1955 were part of the cohorts that headed the equal opportunities between genders. Yet, by the end of the 80 s, Norway still lagged behind other Nordic countries in female labour force participation, which is partly reflected by women's income trajectories in the current study.

The implications of income trajectories for health in later life

In line with the accumulation of disadvantages perspective, continued exposure to low income over a 33-year period was associated with substantially higher odds for poor self-rated health in both older men and women. The group of women that started out low but increased their income over the life course had also better self-rated health compared to the group with stable-low incomes, suggesting that increasing incomes (or employment) in midlife compensate, at least partly, for low initial incomes. Our findings are compatible with the main theories explaining the association between income and health. Worse health in the stable low-income groups reflects a 'cumulative and stress-mediated wear and tear leading to accelerated biological ageing'.[36] The cohorts in the current paper were coming of age during the 60s when the Norwegian welfare state had its greatest expansion, but they also experienced the introduction of activation policies in the 90 s, which emphasized rights to participate (through full employment) as well as obligations to contribute.[37] Activation policies imply relatively weak rights to welfare, which, for those mired at the bottom of the income distribution, may have amplified risks for relative deprivation through experiences of justice, fairness and the degree of integration into society with subsequent health consequences in later life.

Strengths and limitations

A major strength of the current study is the use of long time series (33 years) on pensionable incomes covering most of the economically active part of the life course in combination with self-rated health measured at older ages. Income data are based on closely spaced intervals, which are associated with more precise estimates of income classifications and trajectories.[38] Nevertheless, the validity of the number and type of income trajectories resulting from the LCGA in the present study should be confirmed by future studies using alternative analytic approaches. Our use of long time series on income captures the compound effect of several variables, including health shocks occurring over the life course that may affect earnings. The causal link between income and health is thus likely to be running in both directions,[19] and we cannot rule out reverse causality. However, assessments of the direction of causality are strengthened by using a longitudinal design with measures of income preceding health measurements. Analyses excluding respondents with an onset of chronic health problems before age 30 did not change the results. Our study includes income and health data for a longitudinal sample of older persons who are alive at follow-up in 2017. It represents to some extent a healthy survivor sample, with substantial attrition among those with low education and poor health. This suggests an underestimation of the strength of the associations between income trajectories and health in later life. Self-rated health in 2017 refers to the health of respondents aged 62–80 years. For the oldest respondents, the last measure of pensionable income refers to almost 20 years ago, but to only 1 year ago for the youngest respondents. Including interaction effects between age and income trajectory did however not alter our findings, indicating limited bias due to the proximity of the income trajectory in relation to the health measurement. Ideally, however, multiple measurements of health would be available for respondents of the same ages, which also would enable more detailed examination of the bidirectional relationship between life-course income and health. Measuring health at multiple time points would also improve the assessment of potential differential response shifts in self-rated health across SES. The robustness of our findings is nevertheless strengthened as results are similar for analyses of other health outcomes, including having a chronic health problem, health limitations as well as IADL needs (results available upon request).

Conclusions

The current study demonstrated that income differences at the beginning of working life accumulate over time, leading to widening financial and health inequalities in later life also in a country with an extensive welfare state. The findings underline the earlier raised concern[39] about stubborn fundamental inequality structures in Norway despite a redistributive policy and universal social protection systems, which have a distinct levelling effect on the distribution of disposable income. This does however not affect anyone's rank in the income distribution.[40] Future research should gain insight into how (changes in) redistributive policies interact with individual accumulation of resources, exposures and vulnerabilities over the life course in promoting not only good health but also wellbeing in later life.

Supplementary data

Supplementary data are available at EURPUB online.

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Conflicts of interest: None declared.

Data availability

Anonymous data are available for research purposes and may be obtained from norlag.nsd.no. Extra data are available by e-mailing the corresponding author.

Key points

- Socioeconomic inequalities in health are well-established, but many studies ignore the lagged effects of income or of fluctuations in income over the life course.
- Using life-course income trajectories can yield new and comprehensive knowledge on the relationship between income and health in later life.
- Findings suggested remarkable rigidity in income groups that had formed by age 30.
- A significant share of men and women remain mired in relatively low-income status across the life course with negative implications for self-rated health in later life.
- Future research should gain insight in how (changes in) re-distributive policies interact with individual accumulation of resources, exposures and vulnerabilities over the life course in promoting not only good health but also well-being in later life.

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