

INDIRECT EFFECTS OF THE COVID-19 PANDEMIC:
A CAUSE-OF-DEATH ANALYSIS OF LIFE EXPECTANCY CHANGES
IN 24 COUNTRIES, 2015 TO 2022

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- **Figure S6.** Cause-of-death-specific contributions to changes in male life expectancy at birth by country and period. *Note:* Contributions in months. Tiles for period 2015–2019 show average annual contributions. Cause-of-death data for period 2021–2022 only available for: Australia, Canada, England and Wales, Hungary, Lithuania, the Netherlands, Sweden, and the United States.
- **Figure S7.** Age-group- and cause-of-death-specific contributions to changes in female life expectancy at birth by country and period. *Note:* Contributions in months. Bars for period 2015–2019 show average annual contributions. Cause-of-death data for period 2021–2022 only available for: Australia, Canada, England and Wales, Hungary, Lithuania, the Netherlands, Sweden, and the United States.
- **Figure S8.** Age-group- and cause-of-death-specific contributions to changes in male life expectancy at birth by country and period. *Note:* Contributions in months. Bars for period 2015–2019 show average annual contributions. Cause-of-death data for period 2021–2022 only available for: Australia, Canada, England and Wales, Hungary, Lithuania, the Netherlands, Sweden, and the United States.

Supplementary Text

Following the data gathering process described in the main manuscript, cause-of-death information with 4-character ICD-10 codes was available through at least 2021 for a total of 53 countries or regions, including the 24 countries listed in the main manuscript (Australia, Austria, Brazil, Bulgaria, Canada, Chile, Croatia, Czechia, Denmark, England and Wales, Hungary, Japan, Latvia, Lithuania, the Netherlands, Northern Ireland, Poland, Russia, Scotland, South Korea, Spain, Sweden, Switzerland, the United States), as well as Antigua and Barbuda, Argentina, Colombia, Cuba, Cyprus, Ecuador, Georgia, Grenada, Guatemala, Hong Kong SAR, Israel, Kazakhstan, Lebanon, Luxembourg, Mauritius, Mexico, Micronesia (Federated States of), Mongolia, Montserrat, Nicaragua, Oman, Panama, Paraguay, Puerto Rico, Saint Vincent and Grenadines, Saudi Arabia, Singapore, Tunisia, Virgin Islands (USA).

Our focus was on European countries, and we included countries where data quality was not a concern, excluding Luxembourg, due to its small population, and Cyprus, due to its comparatively low level of death registration (1). Additionally, we included Canada and the United States of America (North America), Brazil and Chile (South America), Japan, Russia, and South Korea (Asia), as well as Australia (Oceania) as comparison countries. Most of these countries have received much attention during the COVID-19 pandemic due to their successful (Australia, Japan, South Korea) or less successful (Brazil, Russia, USA) pandemic responses. In addition, death registration in these countries is very high (1).

In a second step, we explored the plausibility of our cause-of-death data set. To this end, we visually compared all-cause mortality rates constructed from our data set with: (a) abridged life tables provided in the United Nations World Population Prospects (UNWPP) 2024 revision (2), as published in the database; (b) abridged life tables provided in the Human Lifetable Database (3), as published in the database; (c) abridged life tables provided in the Human Mortality Database (4), as published in the database. Data for England and Wales, Northern Ireland, and Scotland were not available in UNWPP. Data for Chile, Croatia, England and Wales, Lithuania, Northern Ireland, and Scotland were not available in the HLD or not available for the period 2015–2022. For the remaining country–years, we used HLD data for comparison where available. For Australia, Bulgaria, Canada, and Denmark, HLD life tables were only available for periods spanning two or three calendar years. To enable comparison for these countries, we aggregated our cause-of-death data to match the HLD data. Data for

Brazil and Russia were not available in the HMD or not available for the period 2015–2022. For the remaining country–years, we used HMD data for comparison where available.

We noticed few large deviations of our all-cause mortality rates from those in UNWPP, the HMD, or the HLD, including: (a) Australia in 2022 (UNWPP only); (b) Brazil in 2021 (HLD only); and (c) South Korea (UNWPP only). Based on our comparisons, we concluded that: (a) the mortality age profile for Australia in 2022 in UNWPP is inconsistent with previous years and potentially affected by an estimation error; (b) HLD life tables for Brazil in 2021 potentially underestimate mortality; (c) UNWPP consistently underestimates young-age mortality in South Korea in the pre-pandemic period. We therefore proceeded with our analysis without further adjustment of our cause-of-death-specific mortality rates.

References

1. A. Karlinsky, International completeness of death registration. *Demographic Research* **50**, 1151–1170 (2024).
2. United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects 2024. <https://population.un.org/wpp/> (2024).
3. HLD, Human Lifetable Database. Max Planck Institute for Demographic Research (Germany), University of California, Berkeley (USA), and French Institute for Demographic Studies (France). Available at www.lifetable.de (Downloaded 22 July 2024). Deposited 2024.
4. HMD, Human Mortality Database. Max Planck Institute for Demographic Research (Germany), University of California, Berkeley (USA), and French Institute for Demographic Studies (France). Available at www.mortality.org (Downloaded 23 July 2024). Deposited 2024.

Table S1. Cause-of-death coding.

	Cause of death	ICD-10 codes
1	Acute CVD (acute IHD and strokes)	I20-I24, I60-I64
2	Other CVD	The rest of I, excluding I42.6
3	Acute respiratory diseases	J00-J22, U04
4	Chronic obstructive pulmonary disease (COPD)	J40-J47
5	Certain infectious diseases	A00-B99
6	Suicides	X60–X84, Y87.0
7	Drug-related deaths	F11–F19, X40–X44, X85, Y10–Y14
8	Alcohol-related deaths	F10, I42.6, K70, K74, X45, Y15
9	Cancer (or Neoplasms)	C00-D48
10	Other external causes of death	V, W, and the rest of X and Y
11	COVID-19	U07.1, U07.2
12	Residual	All else

Figure S1a

Comparison of age-group-specific logged mortality rates (Australia), author data set (solid line) vs. UNWPP (dashed line)

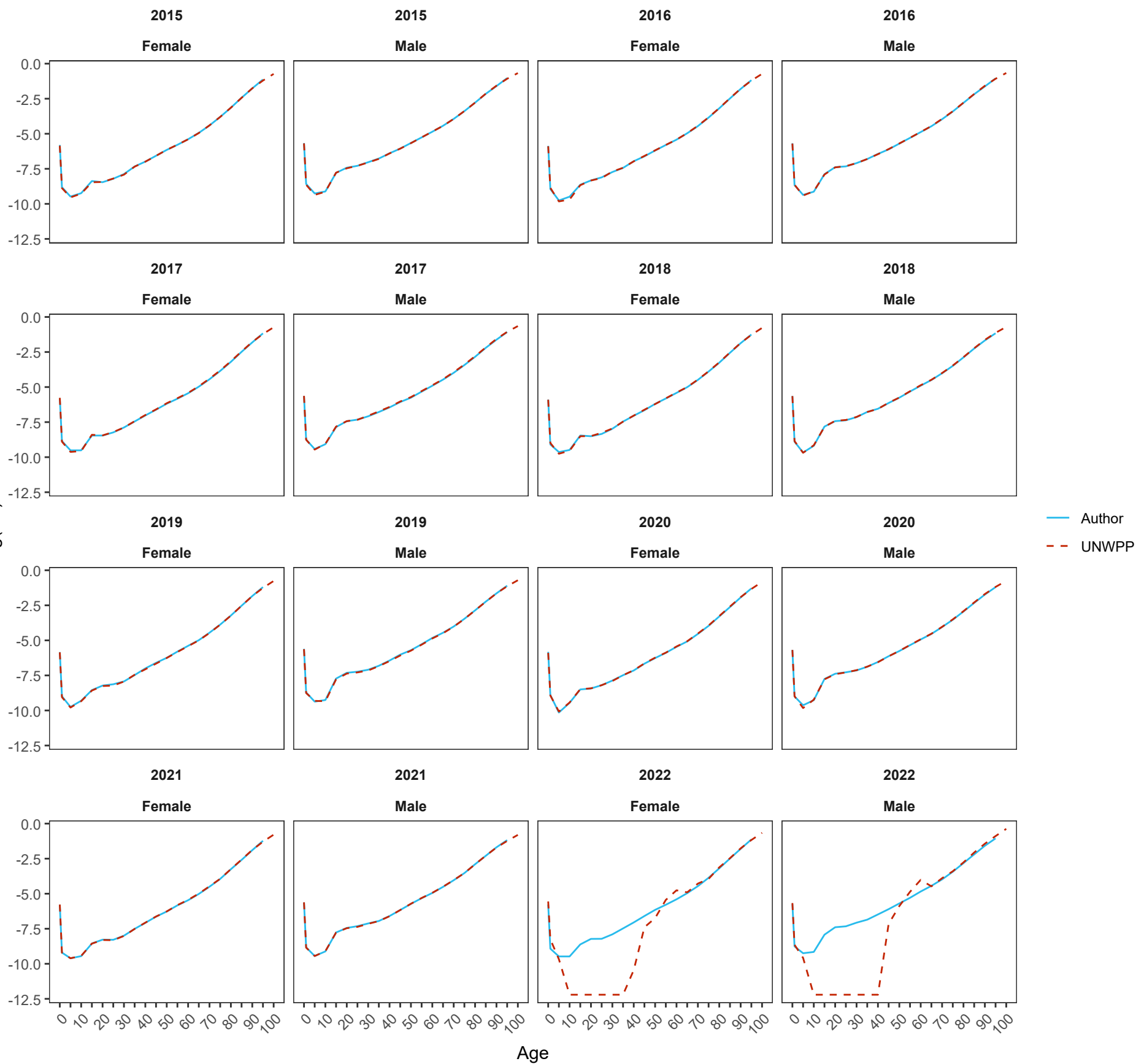


Figure S1b

Comparison of age-group-specific logged mortality rates (Austria),
author data set (solid line) vs. UNWPP (dashed line)

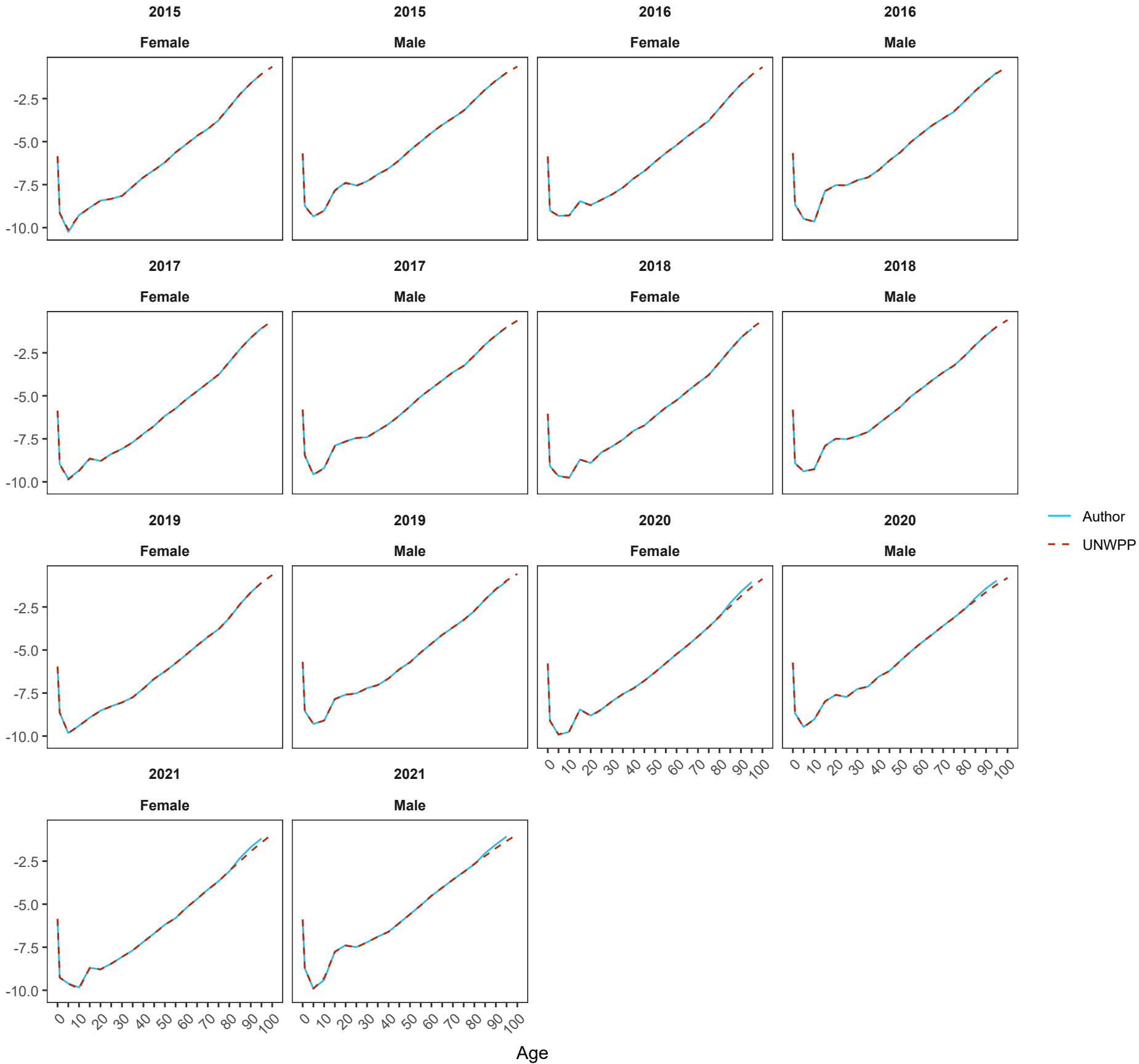


Figure S1c

Comparison of age-group-specific logged mortality rates (Brazil),
author data set (solid line) vs. UNWPP (dashed line)

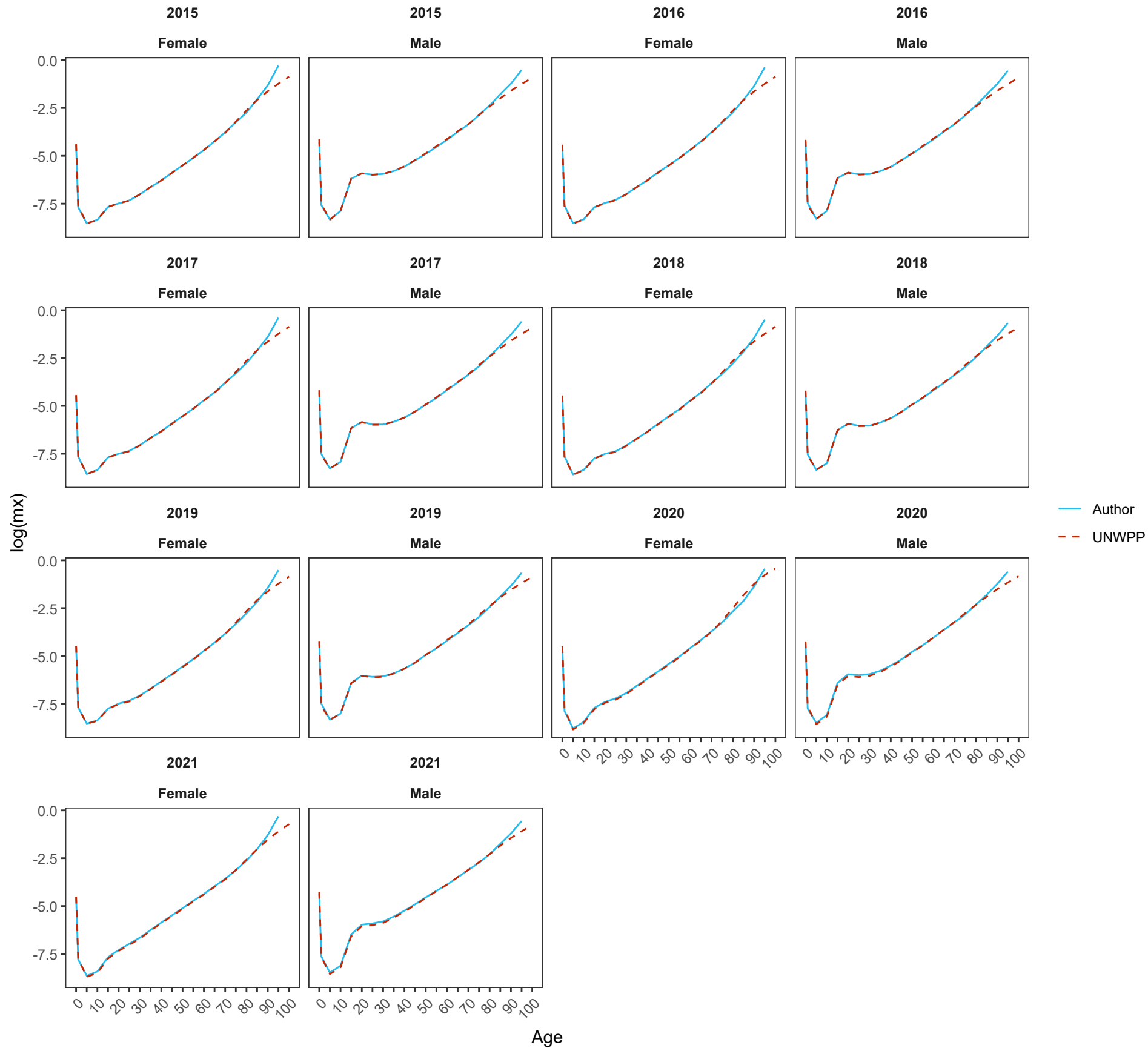


Figure S1d

Comparison of age-group-specific logged mortality rates (Bulgaria),
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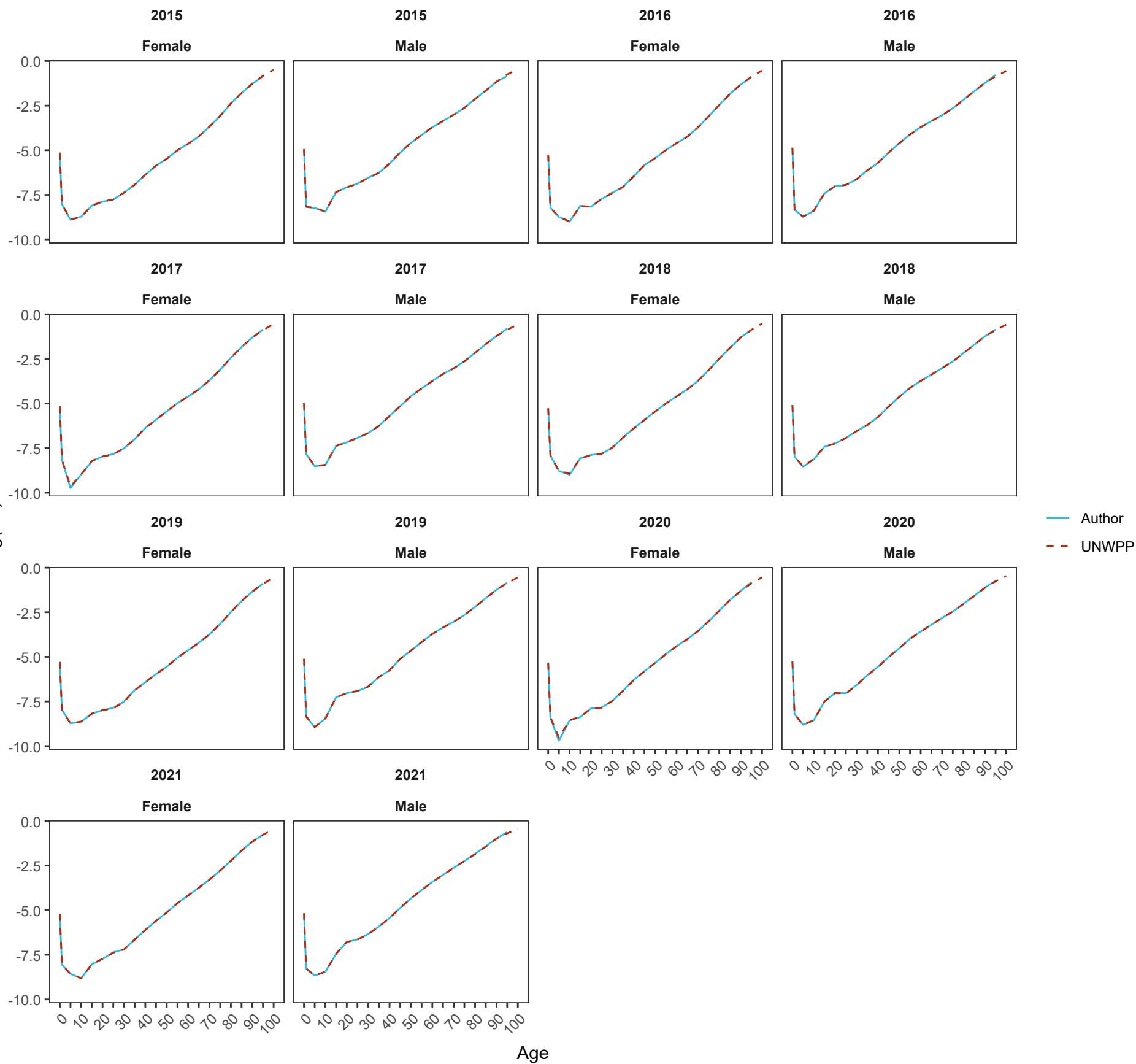


Figure S1e

Comparison of age-group-specific logged mortality rates (Canada),
author data set (solid line) vs. UNWPP (dashed line)

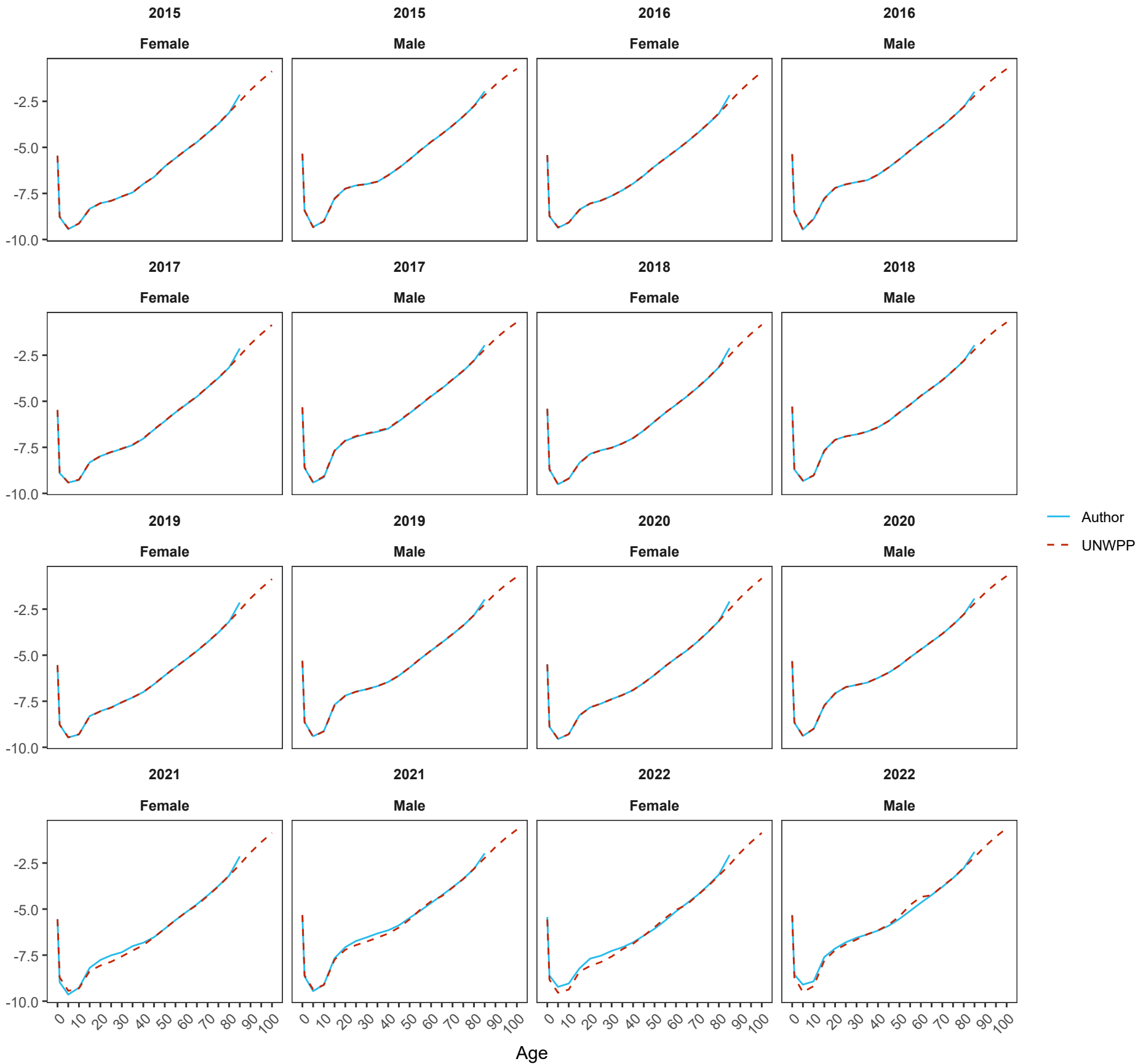


Figure S1f

Comparison of age-group-specific logged mortality rates (Chile),
author data set (solid line) vs. UNWPP (dashed line)

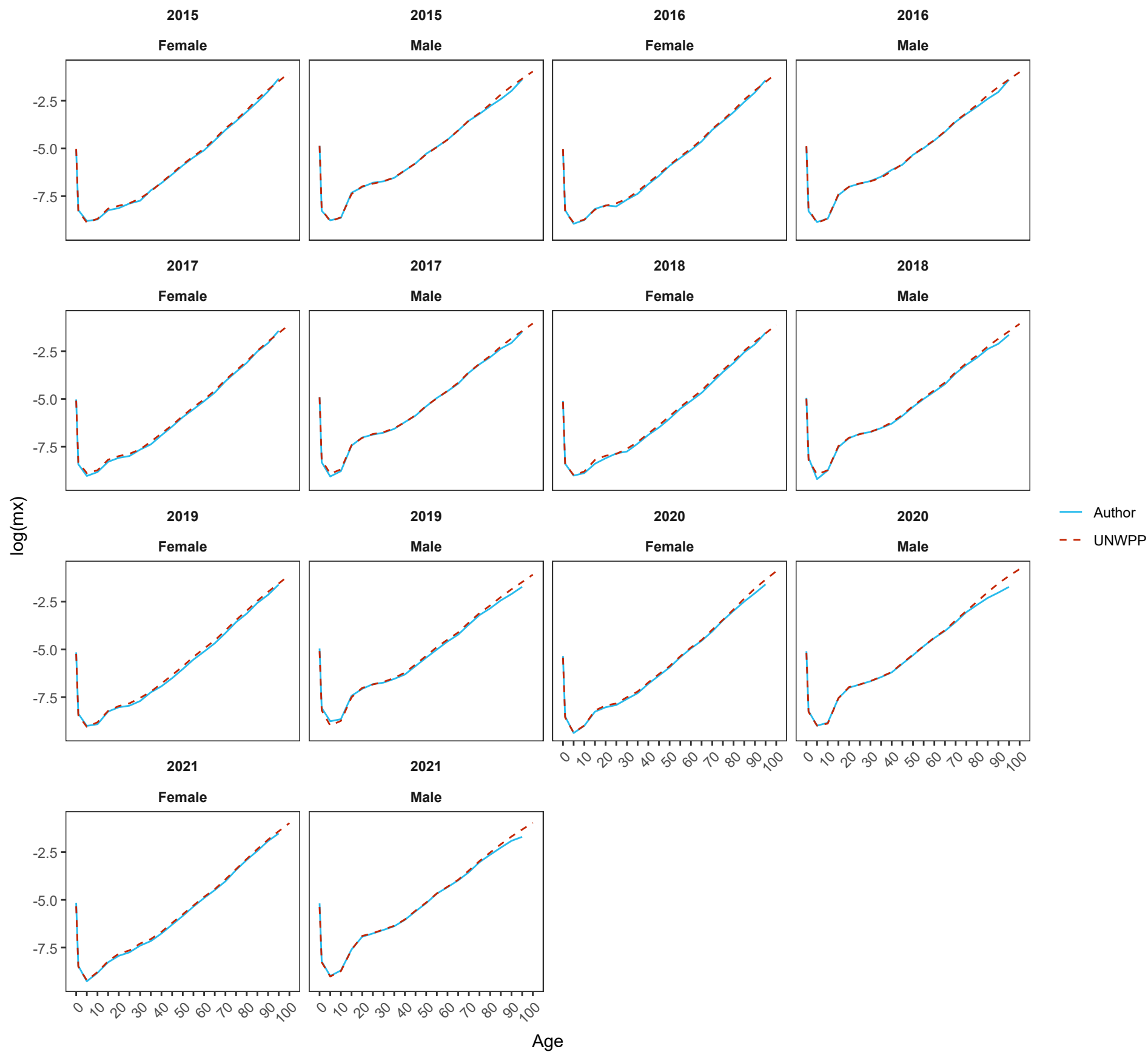


Figure S1g

Comparison of age-group-specific logged mortality rates (Croatia),
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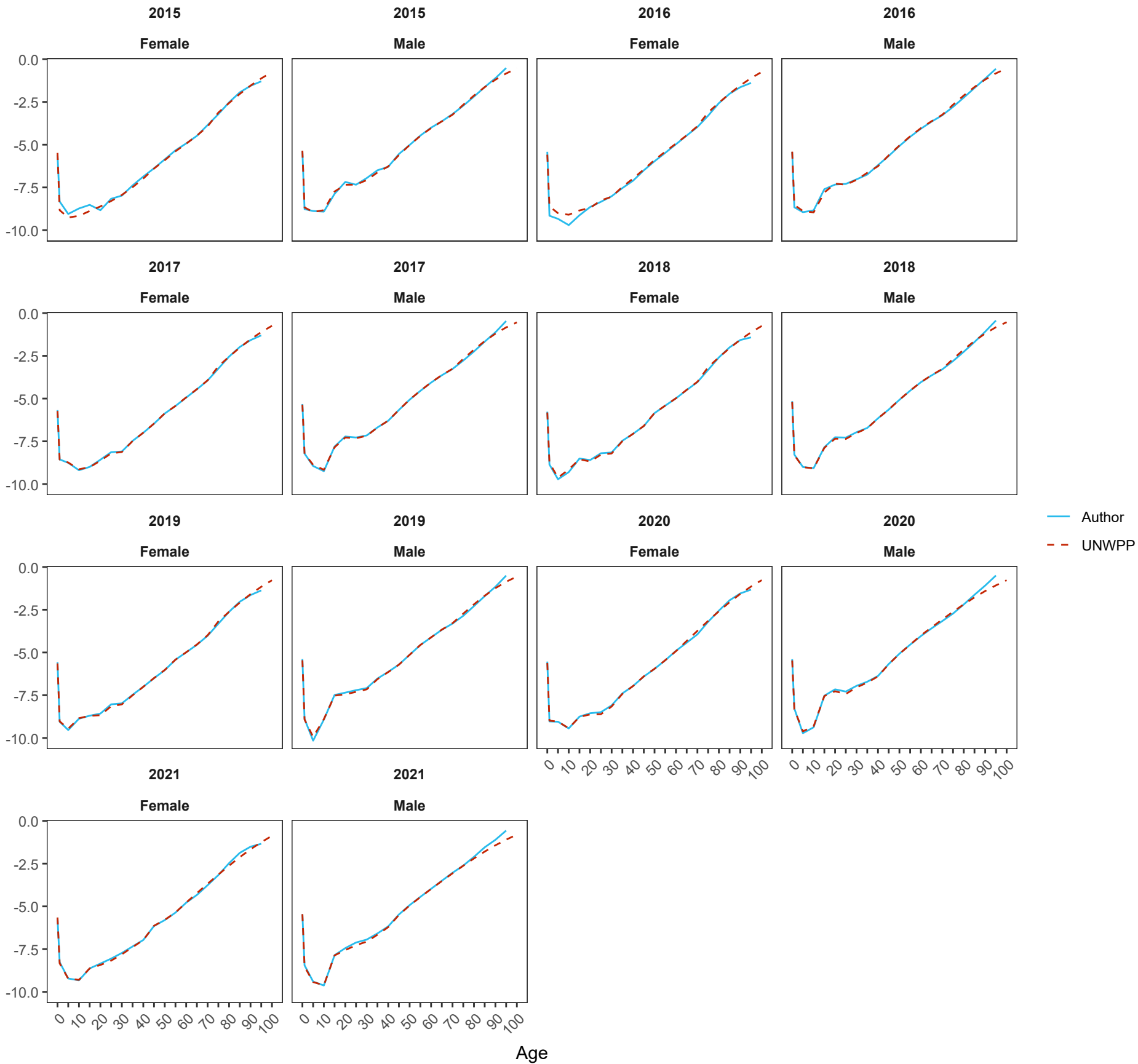


Figure S1h

Comparison of age-group-specific logged mortality rates (Czechia), author data set (solid line) vs. UNWPP (dashed line)

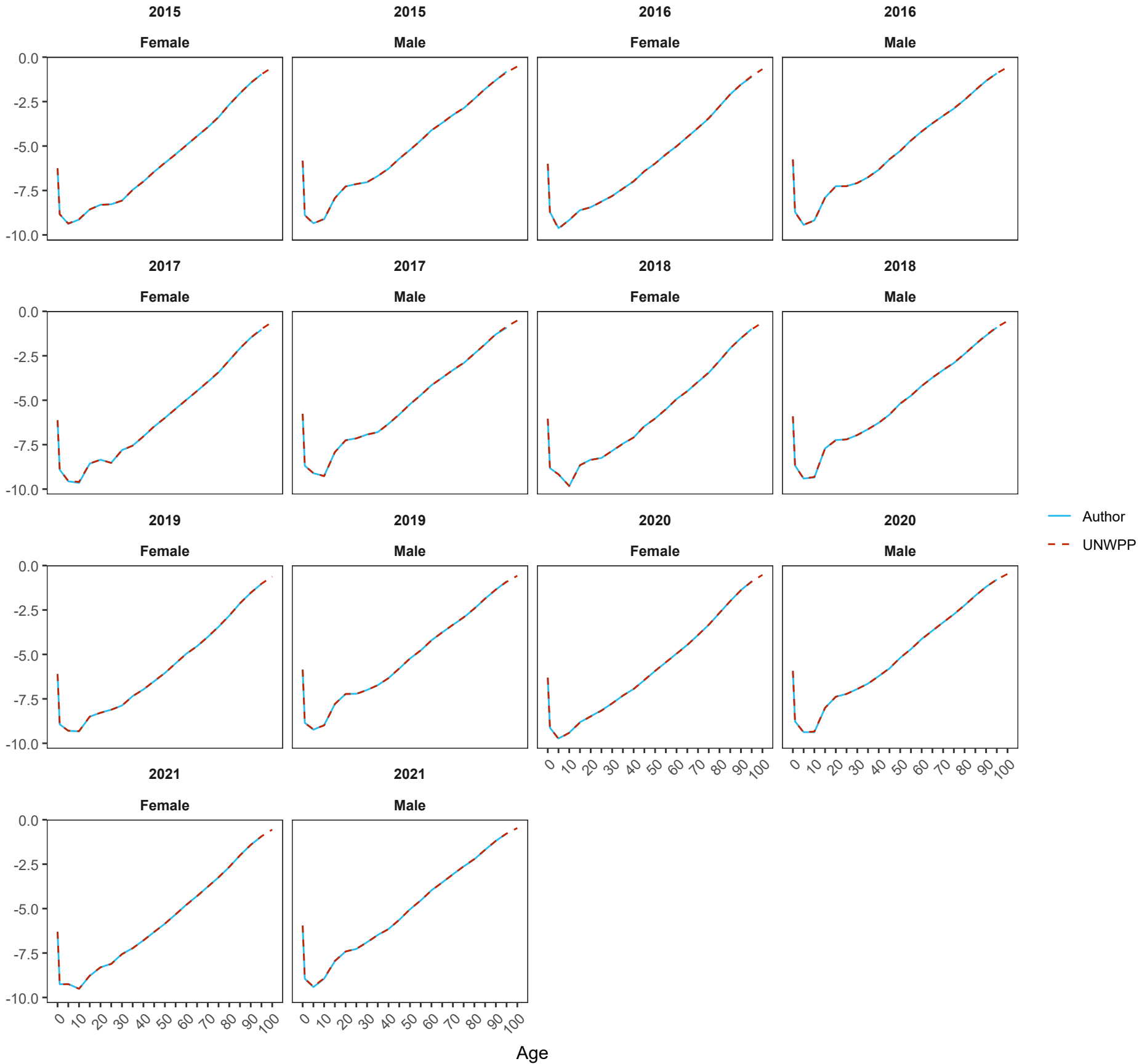


Figure S1i

Comparison of age-group-specific logged mortality rates (Denmark),
author data set (solid line) vs. UNWPP (dashed line)

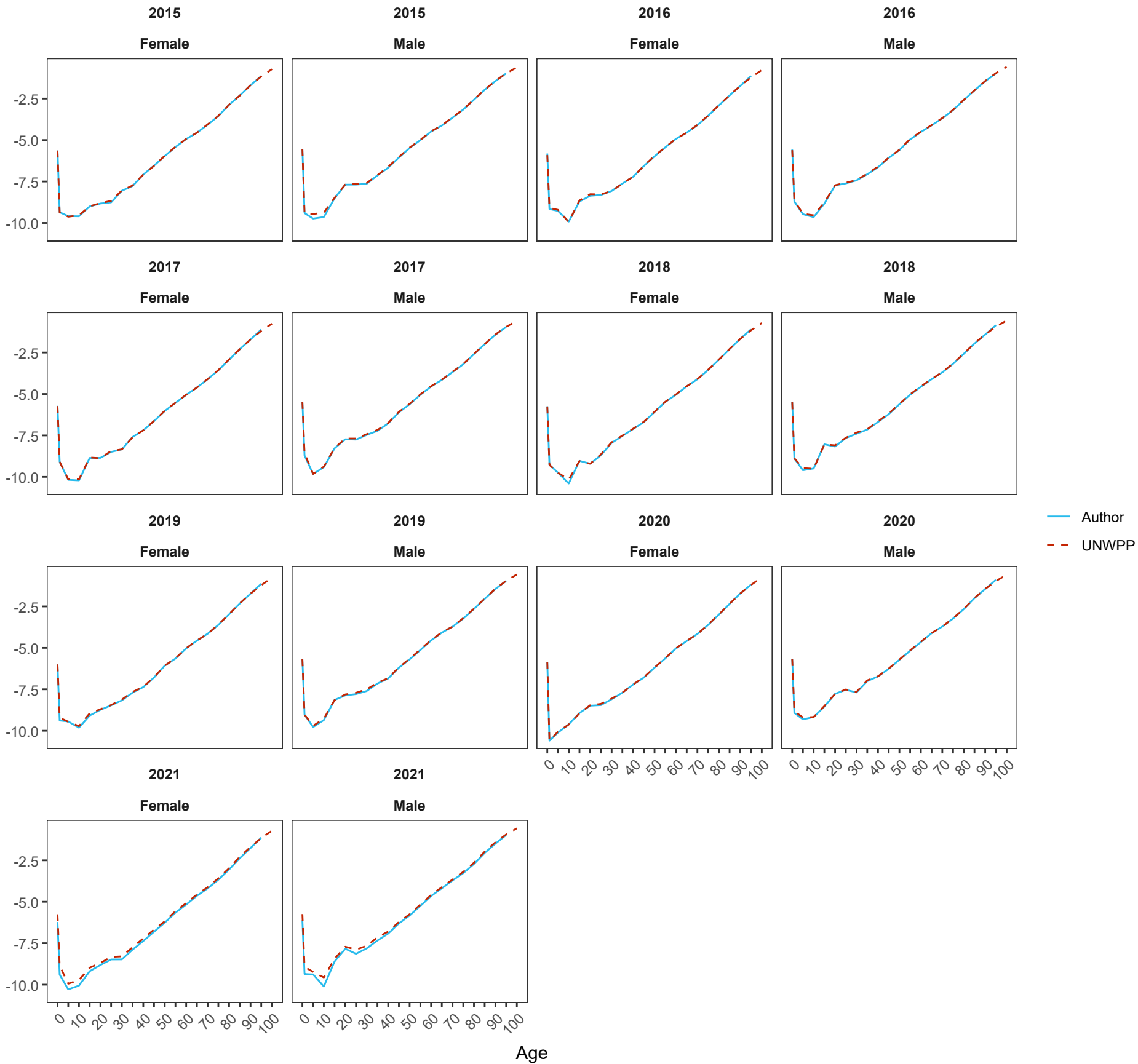


Figure S1j

Comparison of age-group-specific logged mortality rates (Hungary),
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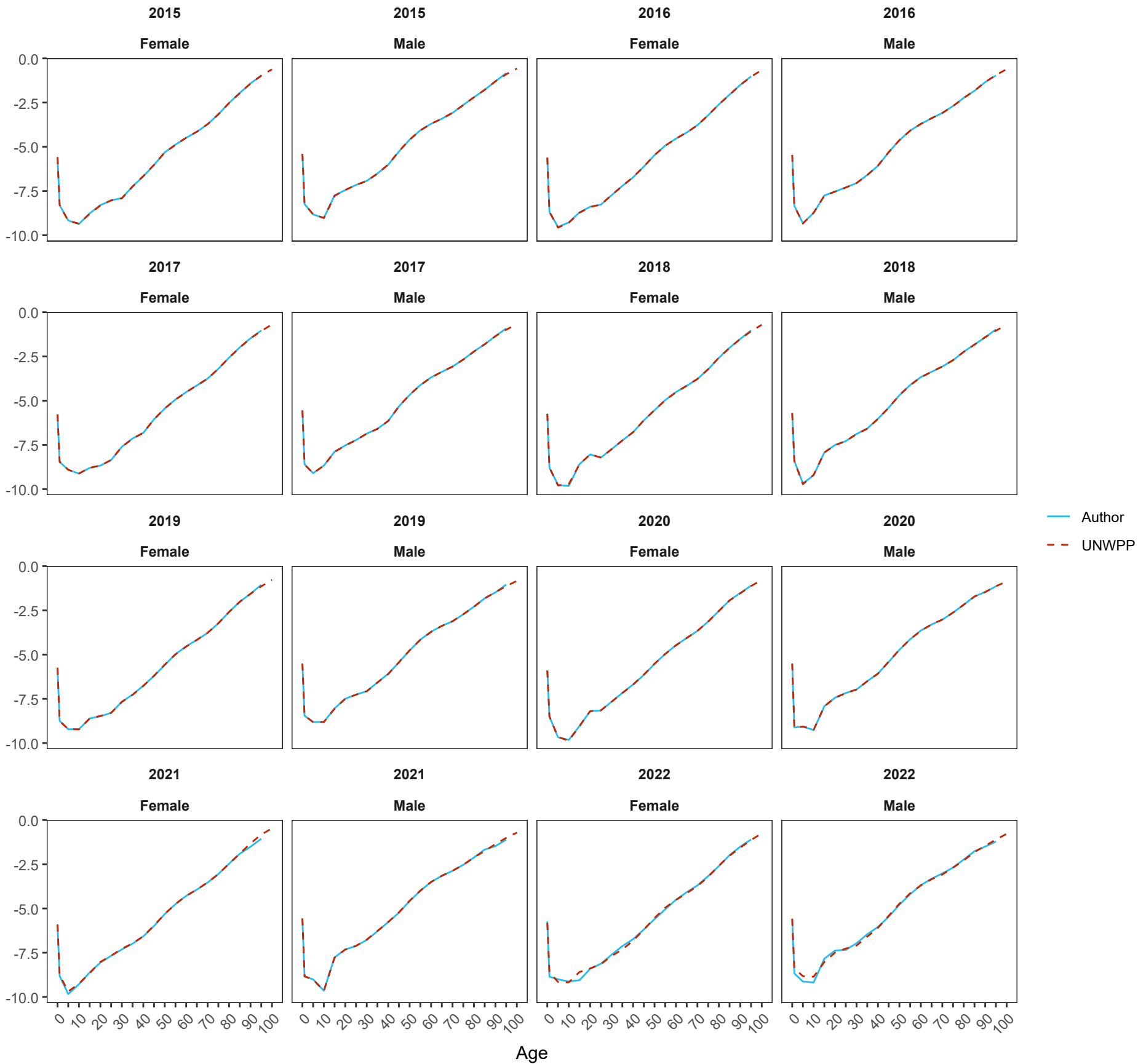


Figure S1k

Comparison of age-group-specific logged mortality rates (Japan),
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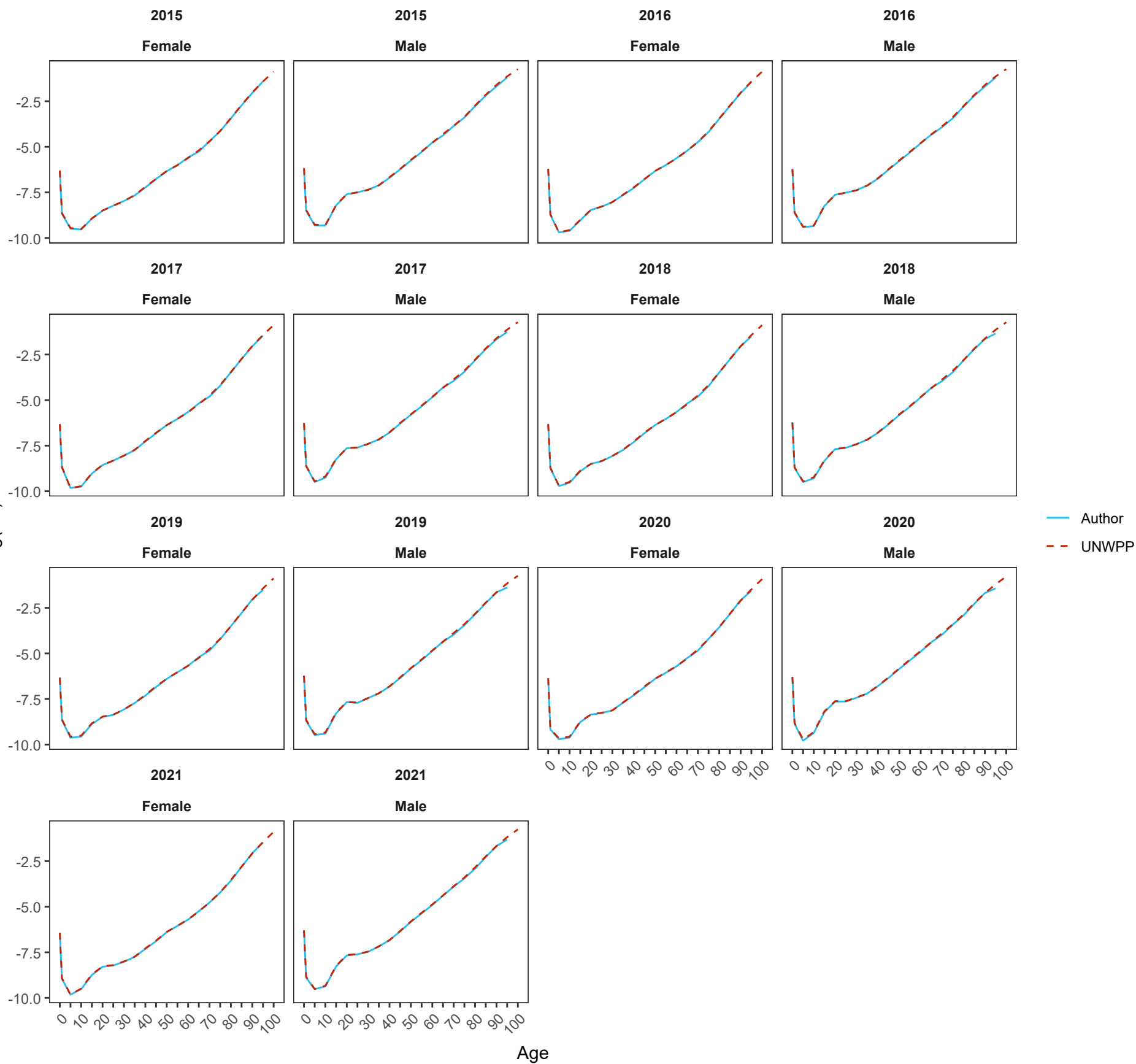


Figure S11

Comparison of age-group-specific logged mortality rates (Latvia), author data set (solid line) vs. UNWPP (dashed line)

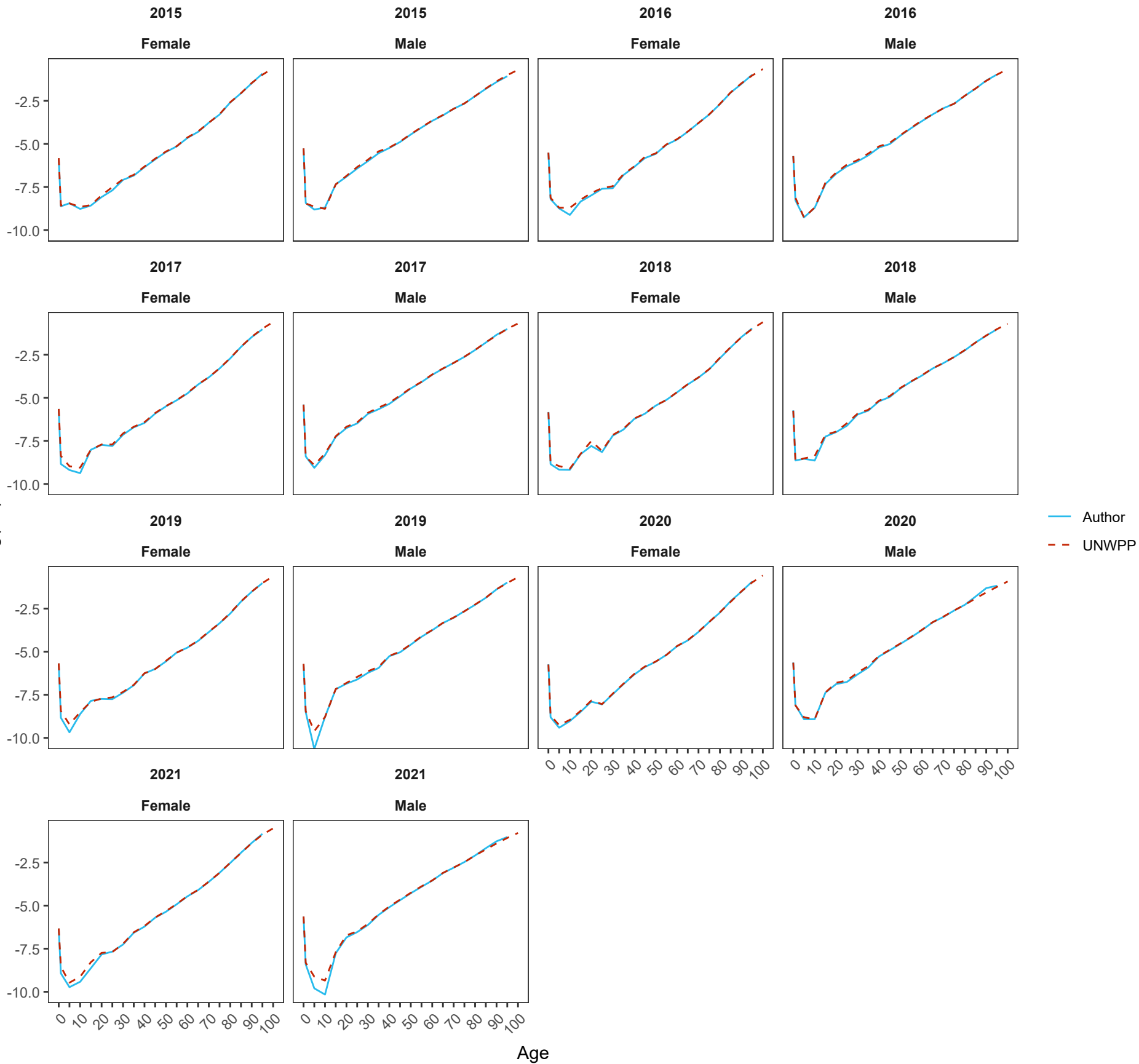


Figure S1m

Comparison of age-group-specific logged mortality rates (Lithuania),
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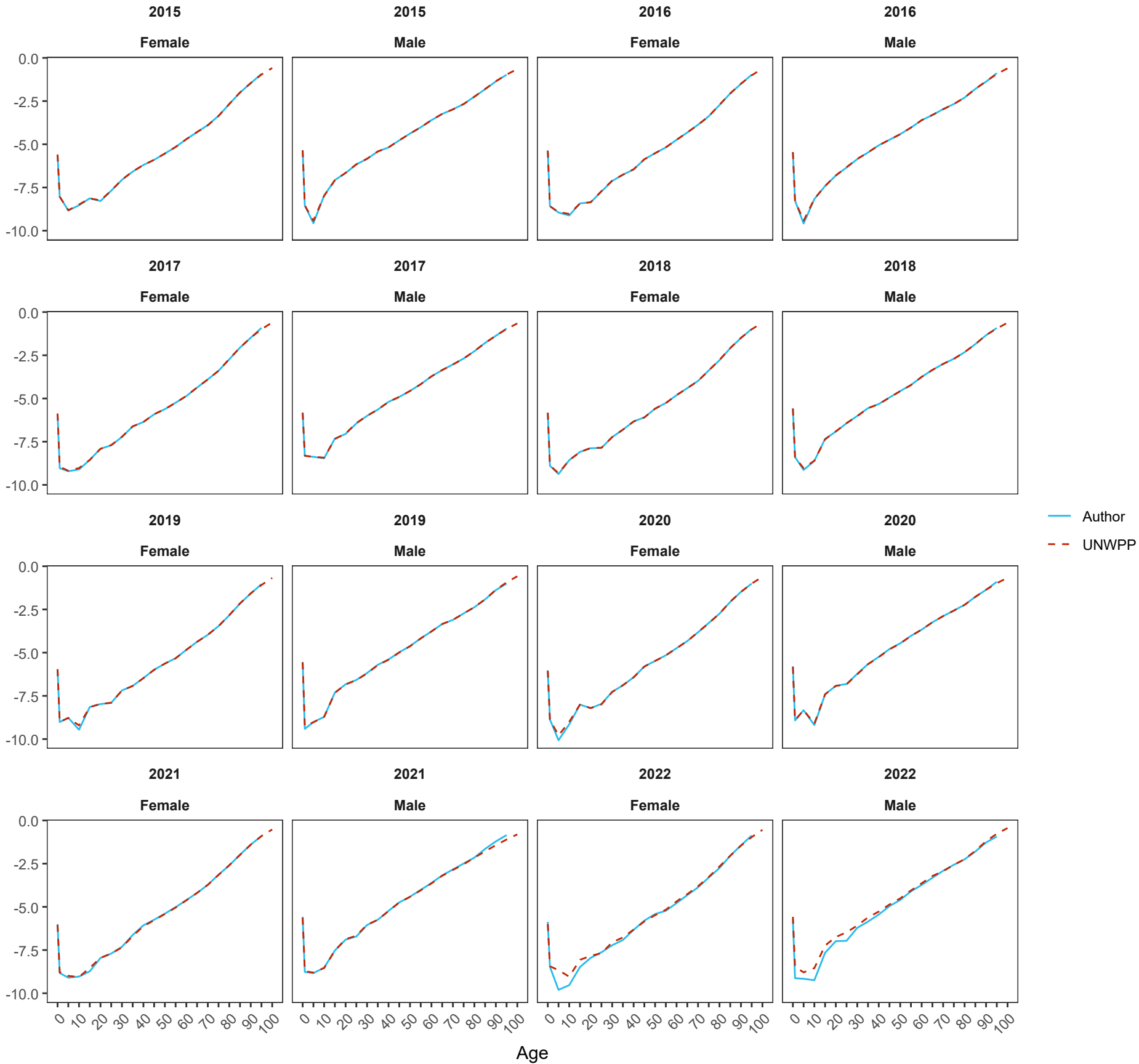


Figure S1n

Comparison of age-group-specific logged mortality rates (Netherlands), author data set (solid line) vs. UNWPP (dashed line)

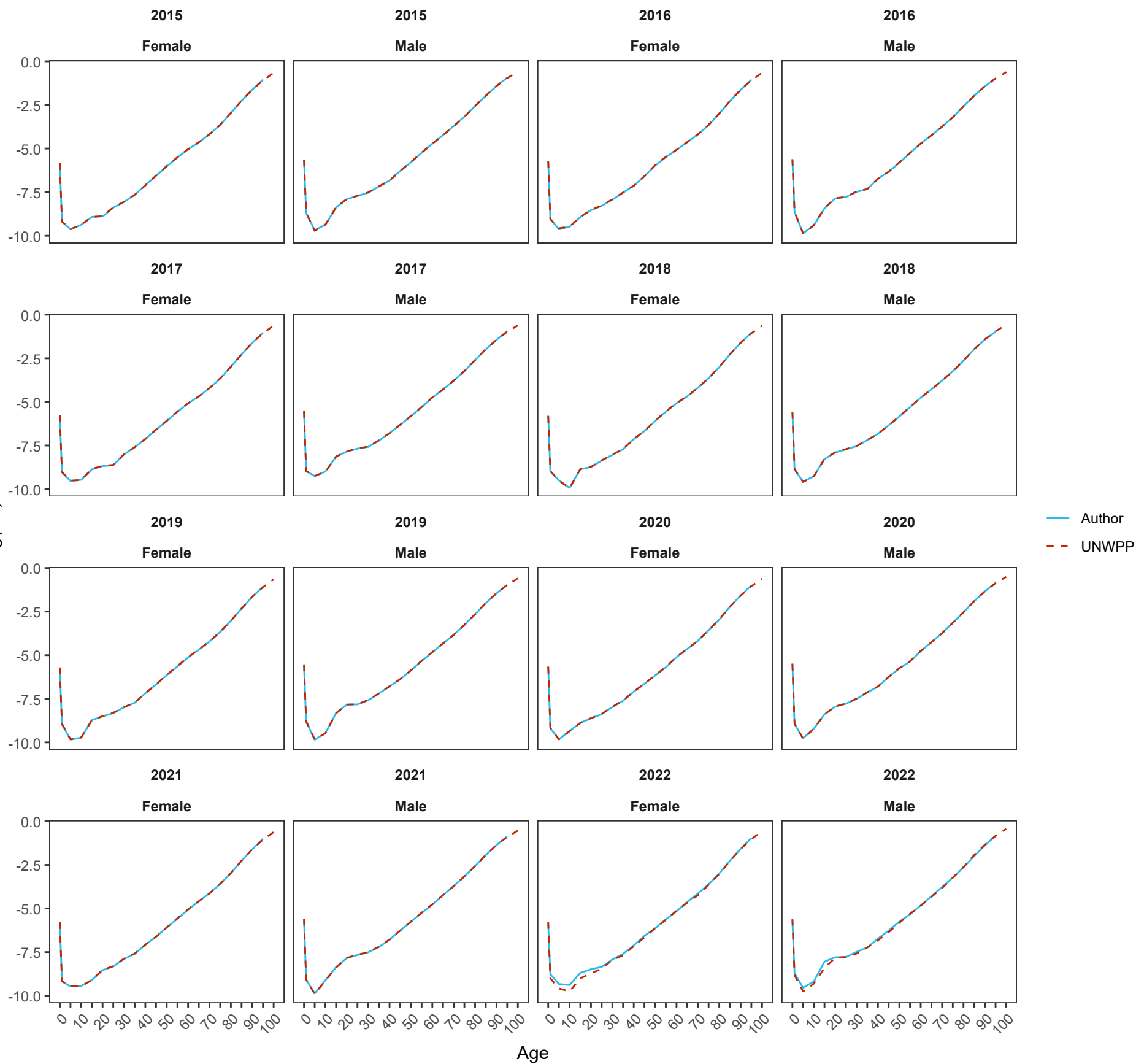


Figure S1o

Comparison of age-group-specific logged mortality rates (Poland), author data set (solid line) vs. UNWPP (dashed line)

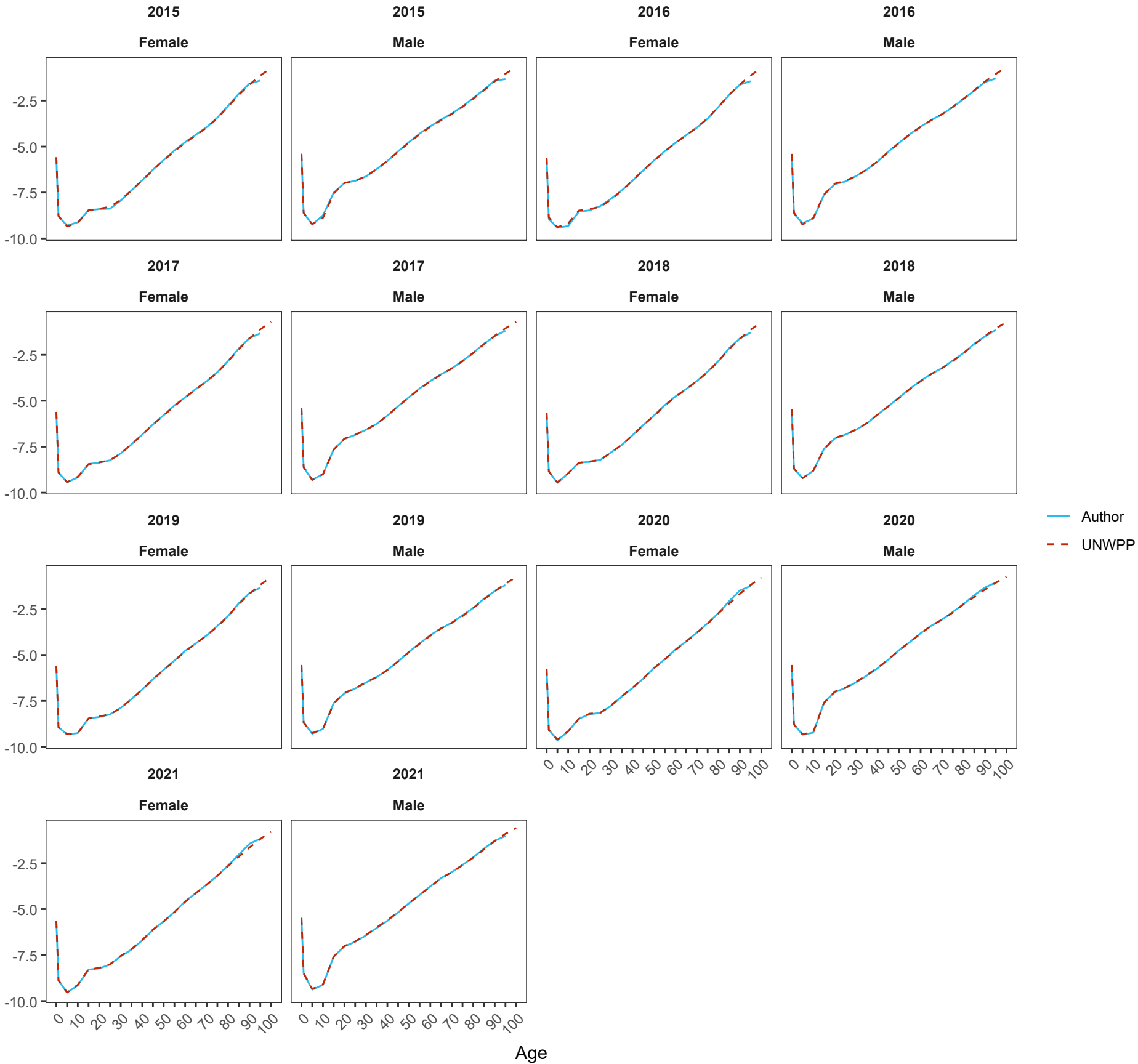


Figure S1p

Comparison of age-group-specific logged mortality rates (Russia),
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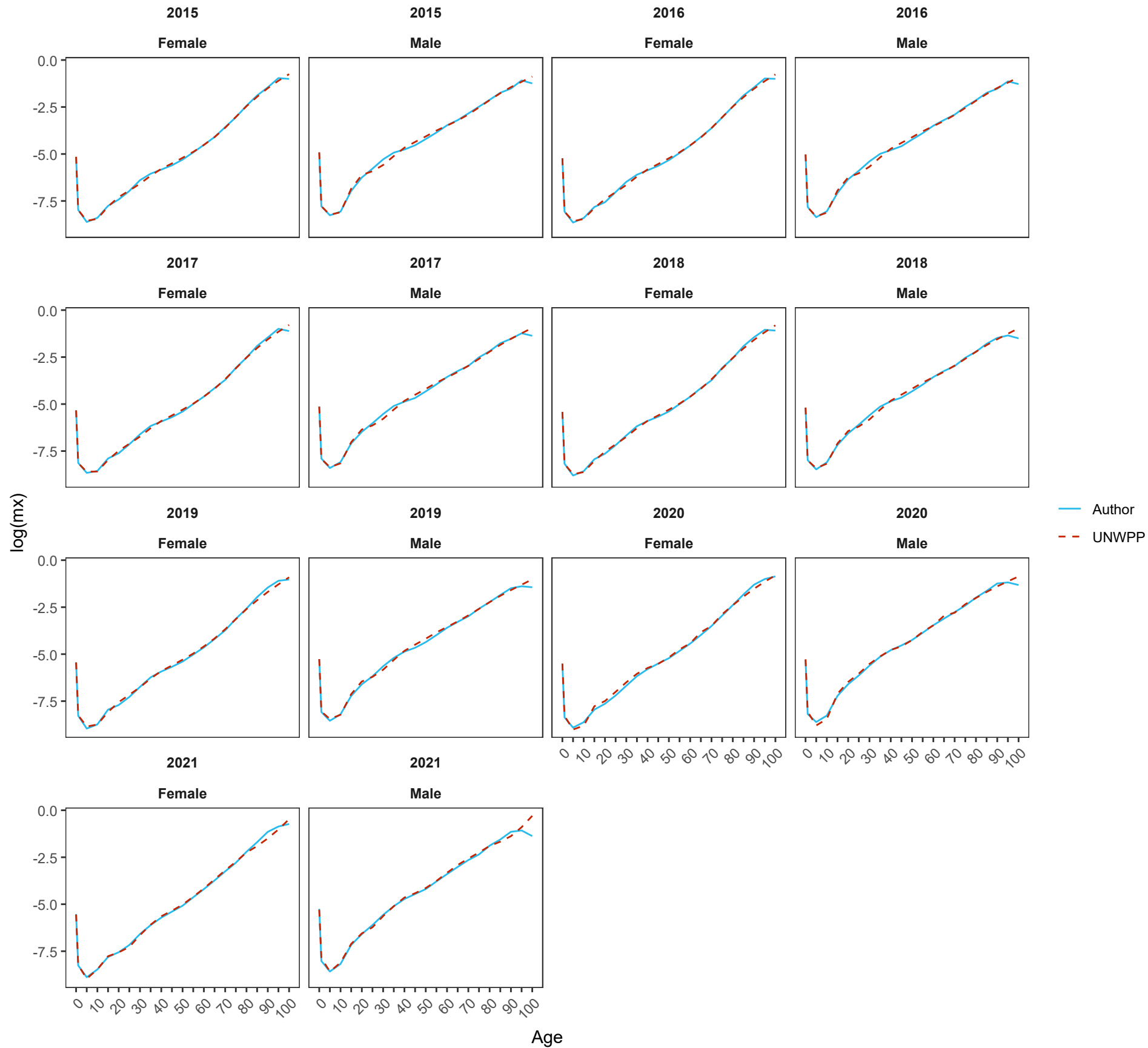


Figure S1q

Comparison of age-group-specific logged mortality rates (South Korea),
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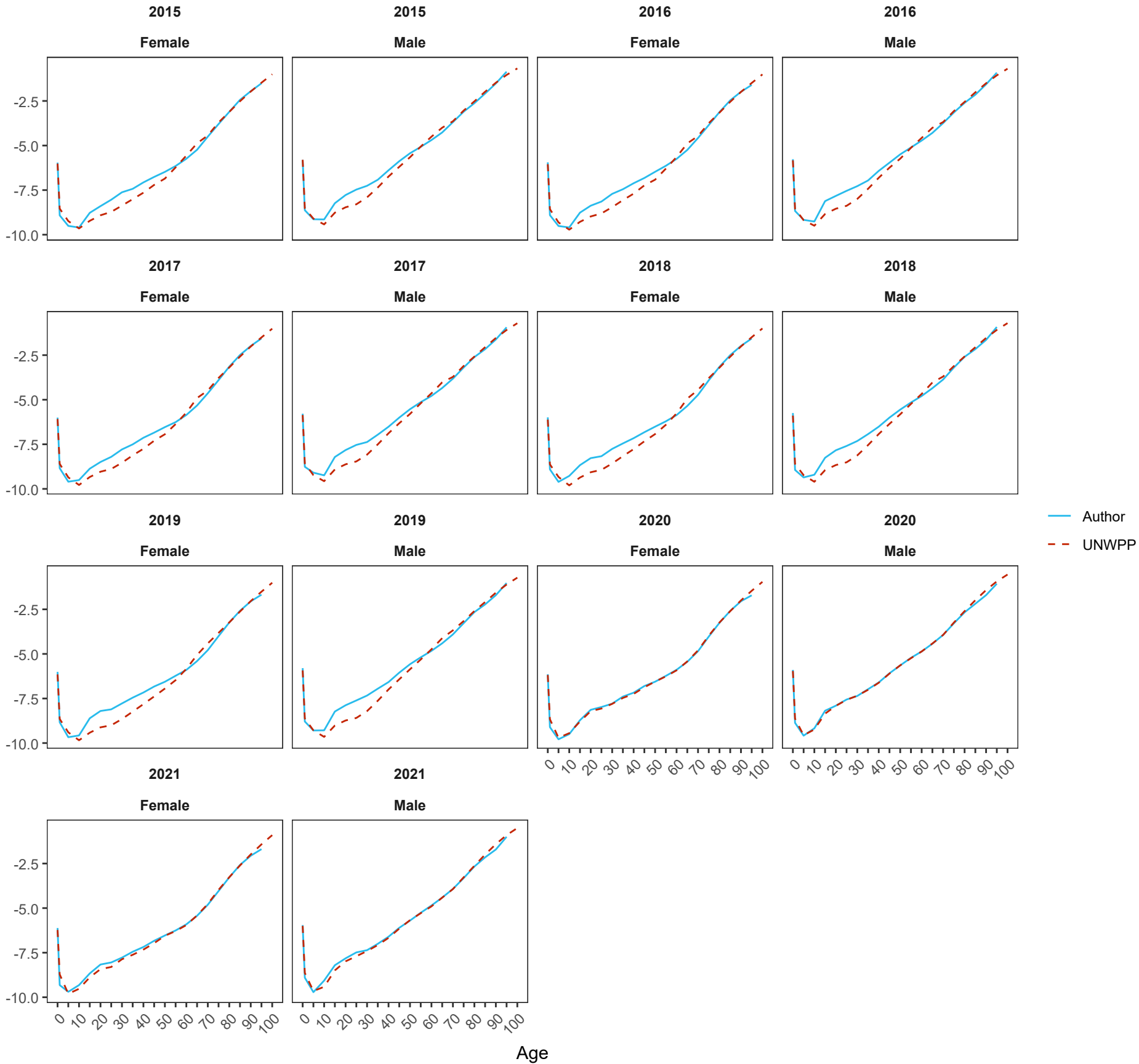


Figure S1r

Comparison of age-group-specific logged mortality rates (Spain), author data set (solid line) vs. UNWPP (dashed line)

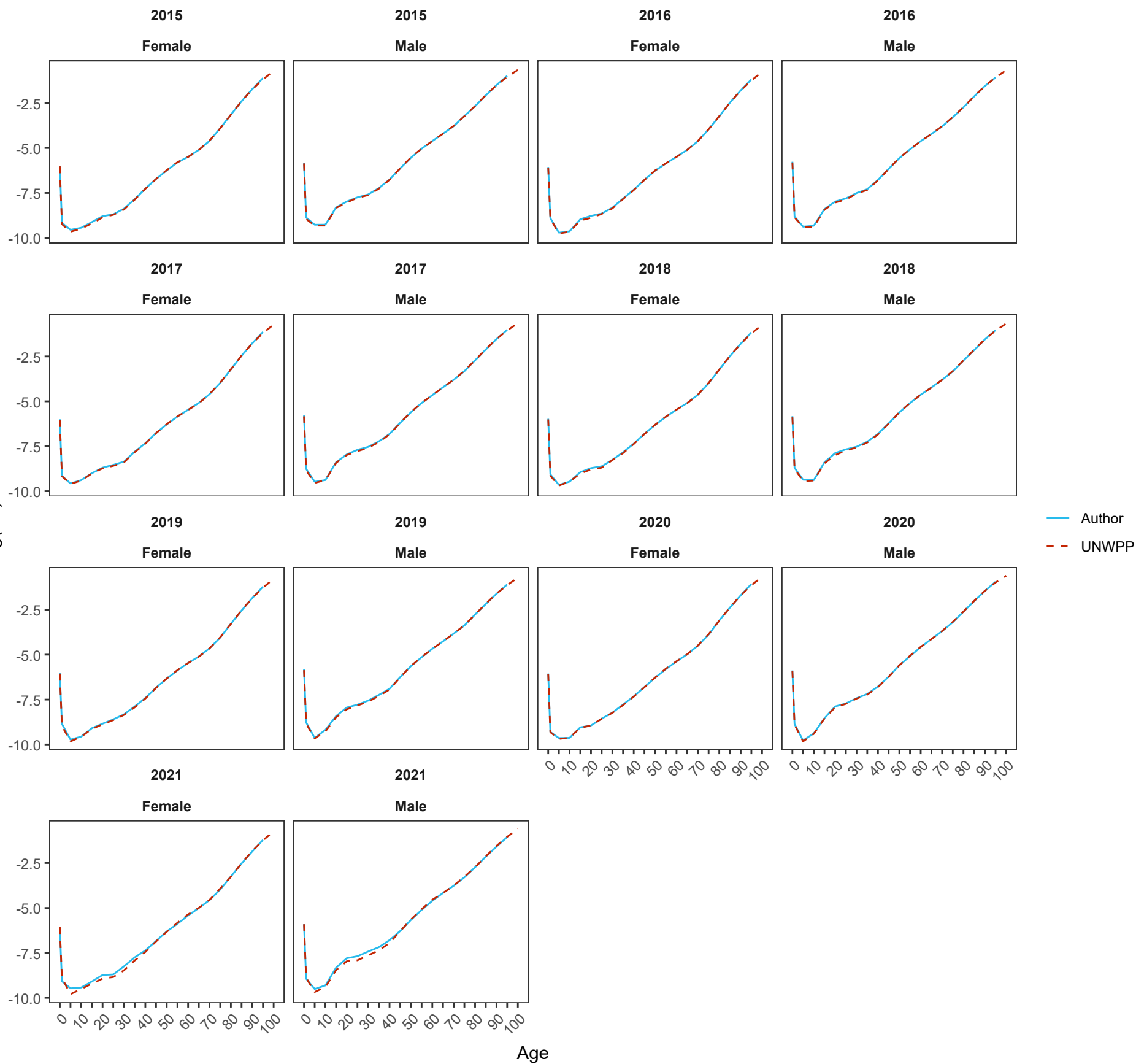


Figure S1s

Comparison of age-group-specific logged mortality rates (Sweden),
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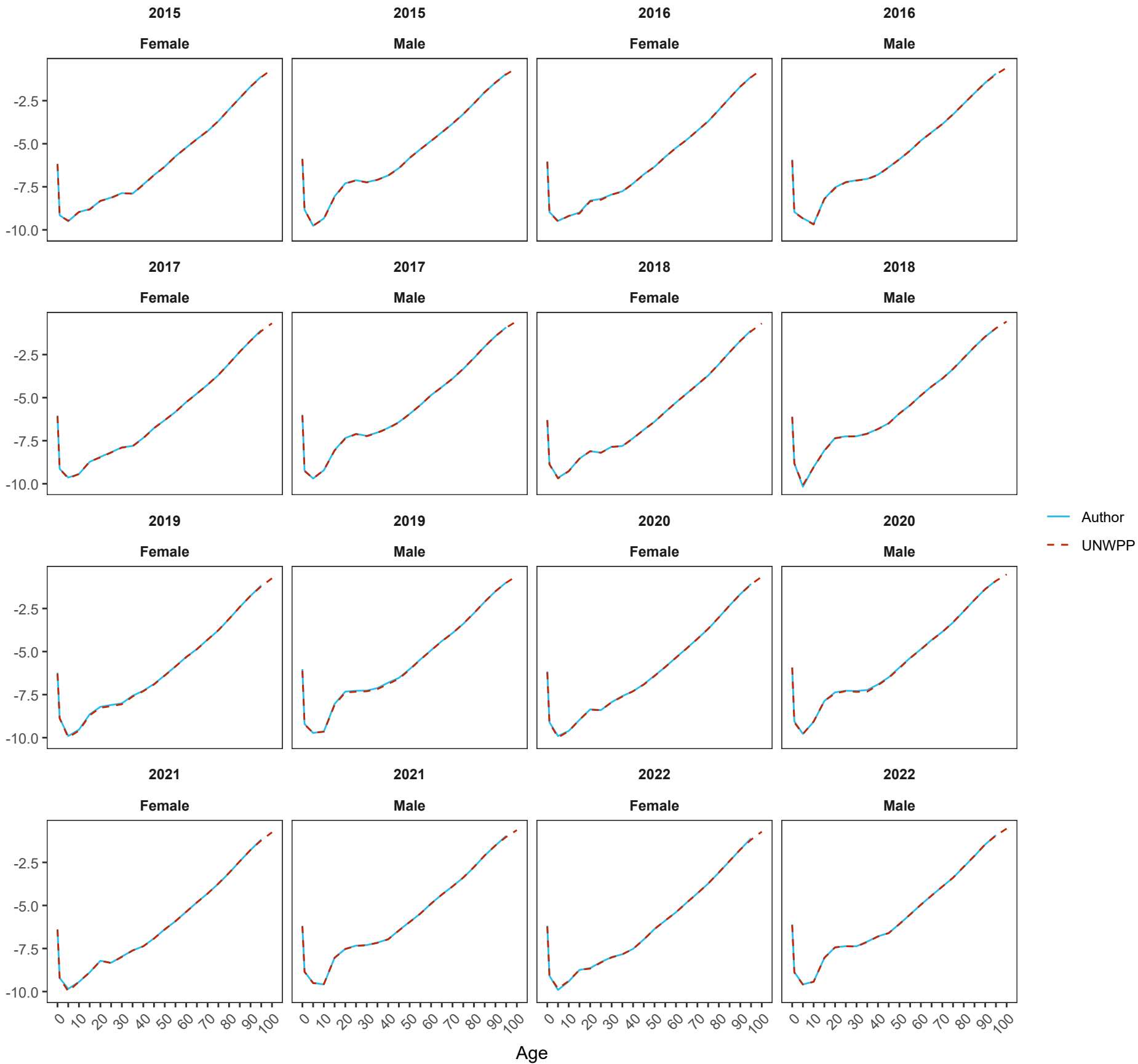


Figure S1t

Comparison of age-group-specific logged mortality rates (Switzerland), author data set (solid line) vs. UNWPP (dashed line)

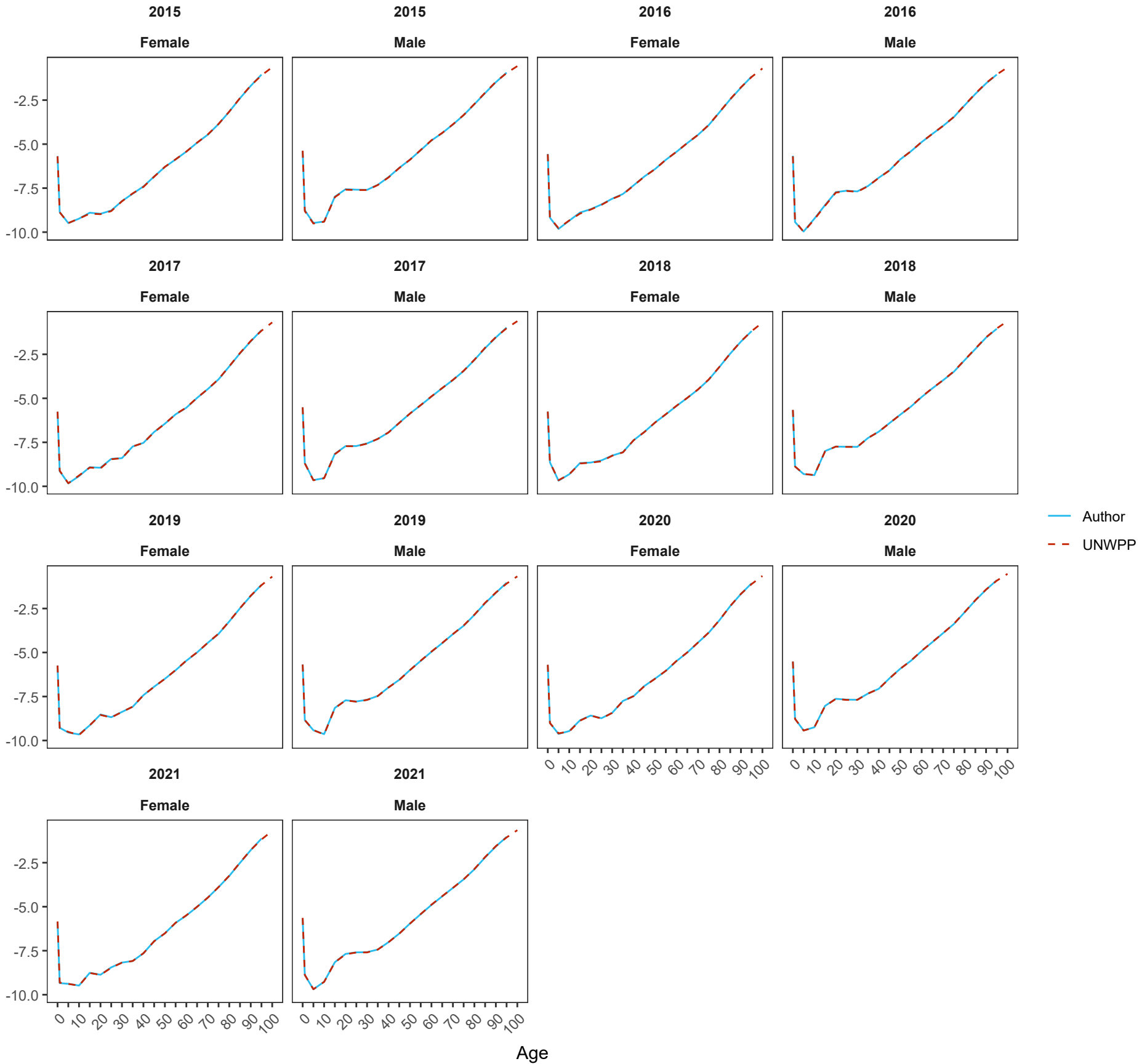


Figure S1u

Comparison of age-group-specific logged mortality rates (USA),
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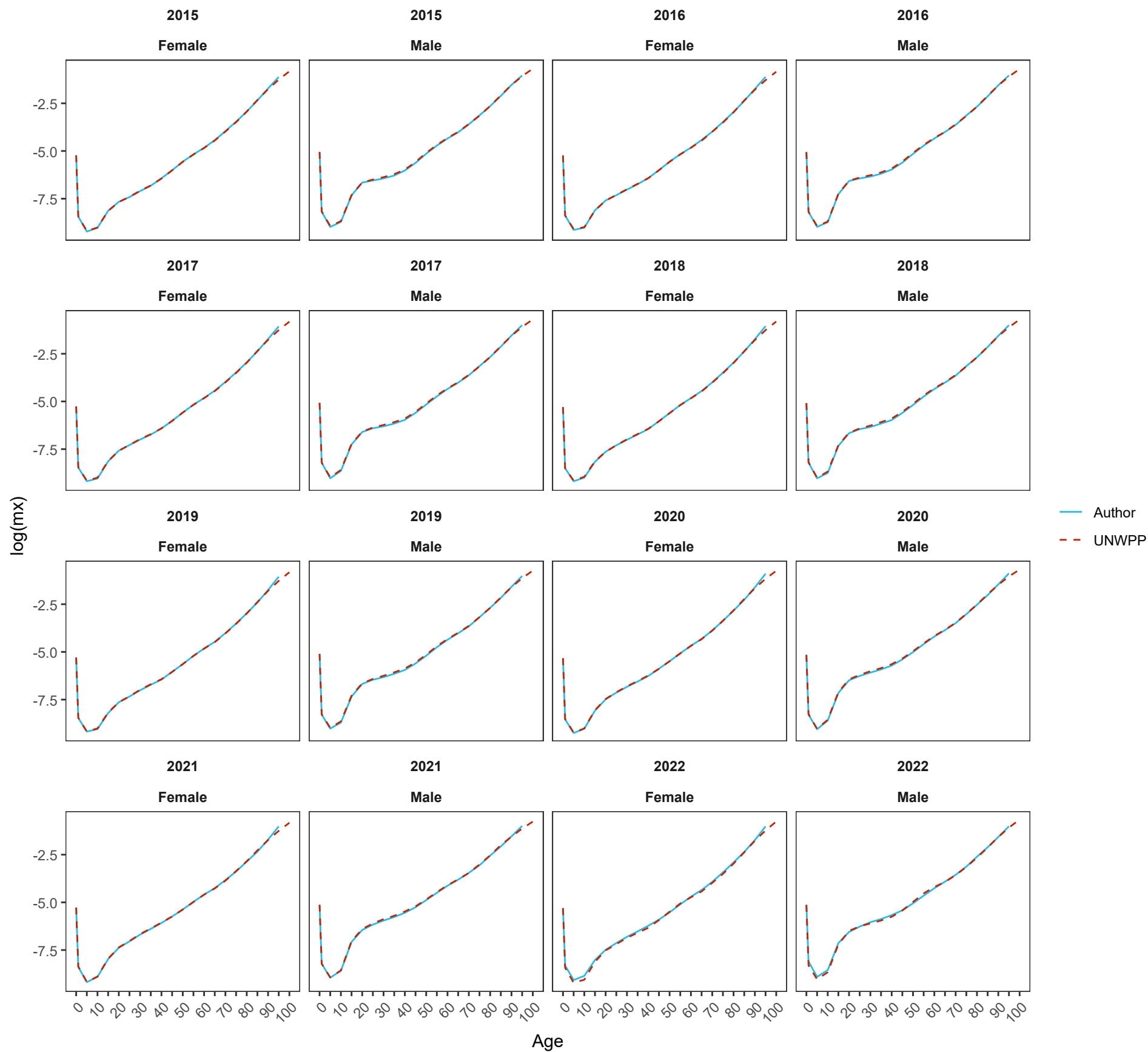


Figure S2a

Comparison of age-group-specific logged mortality rates (Australia),
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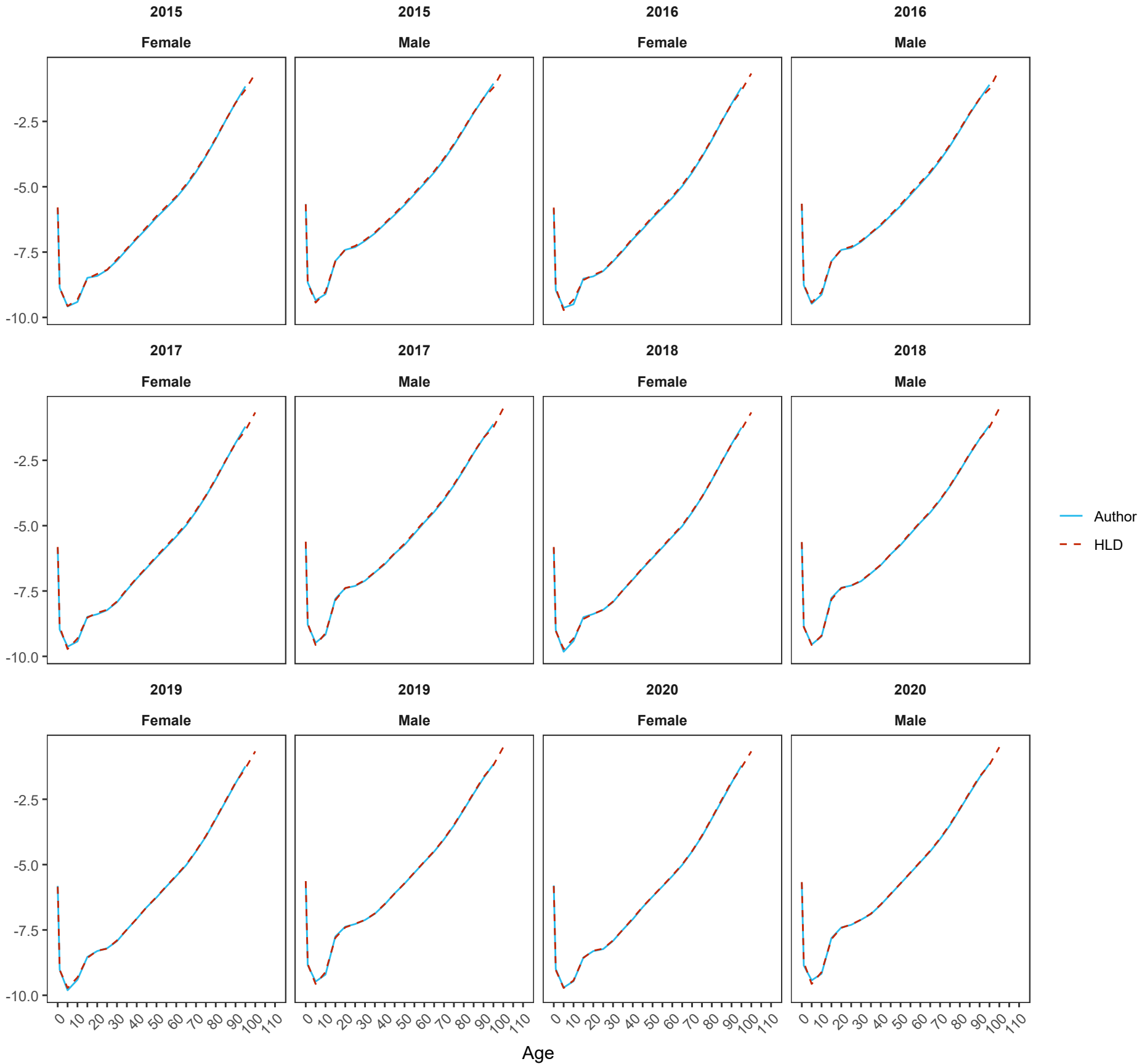


Figure S2b

Comparison of age-group-specific logged mortality rates (Austria), author data set (solid line) vs. HLD (dashed line)

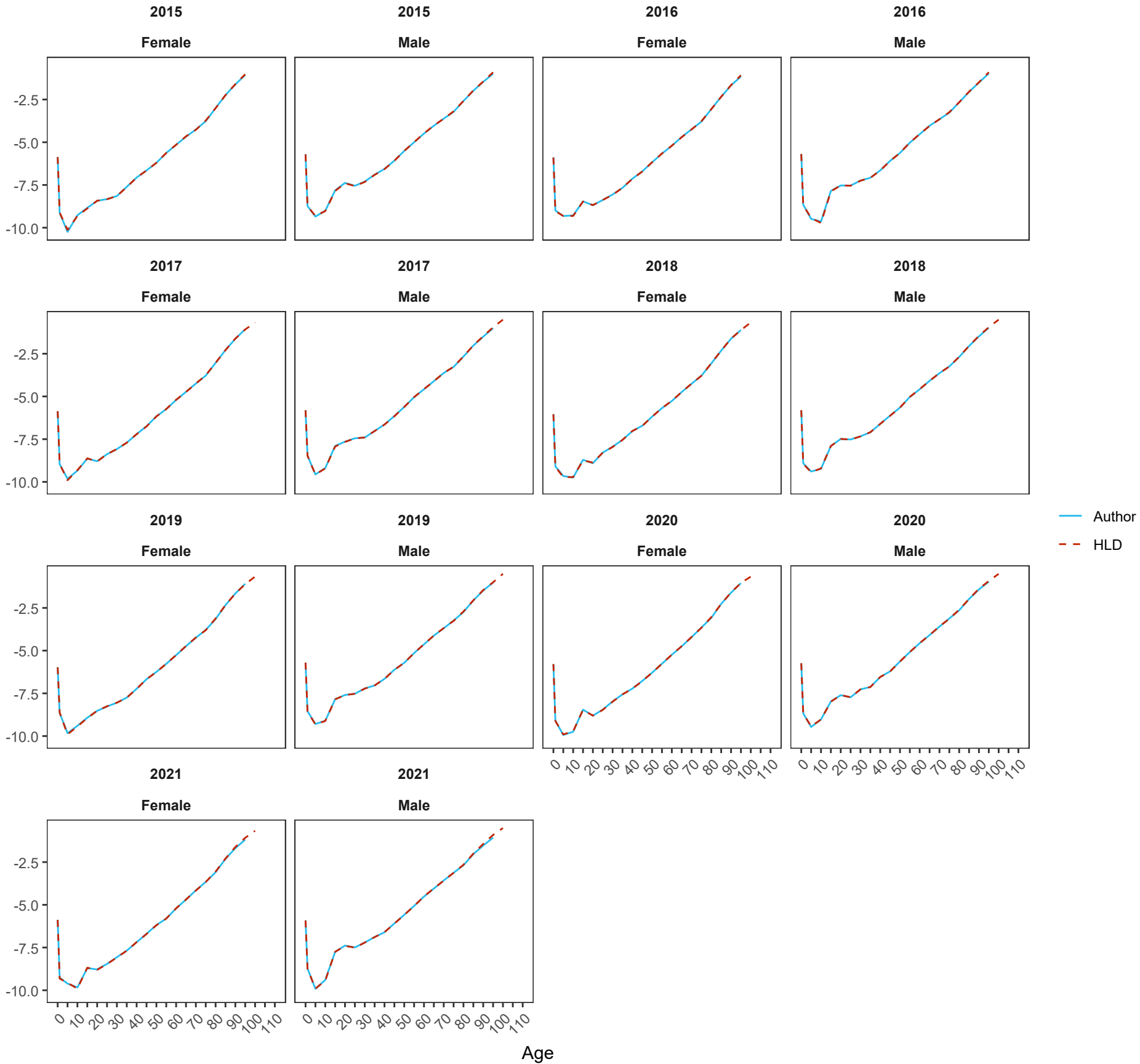


Figure S2c

Comparison of age-group-specific logged mortality rates (Bulgaria),
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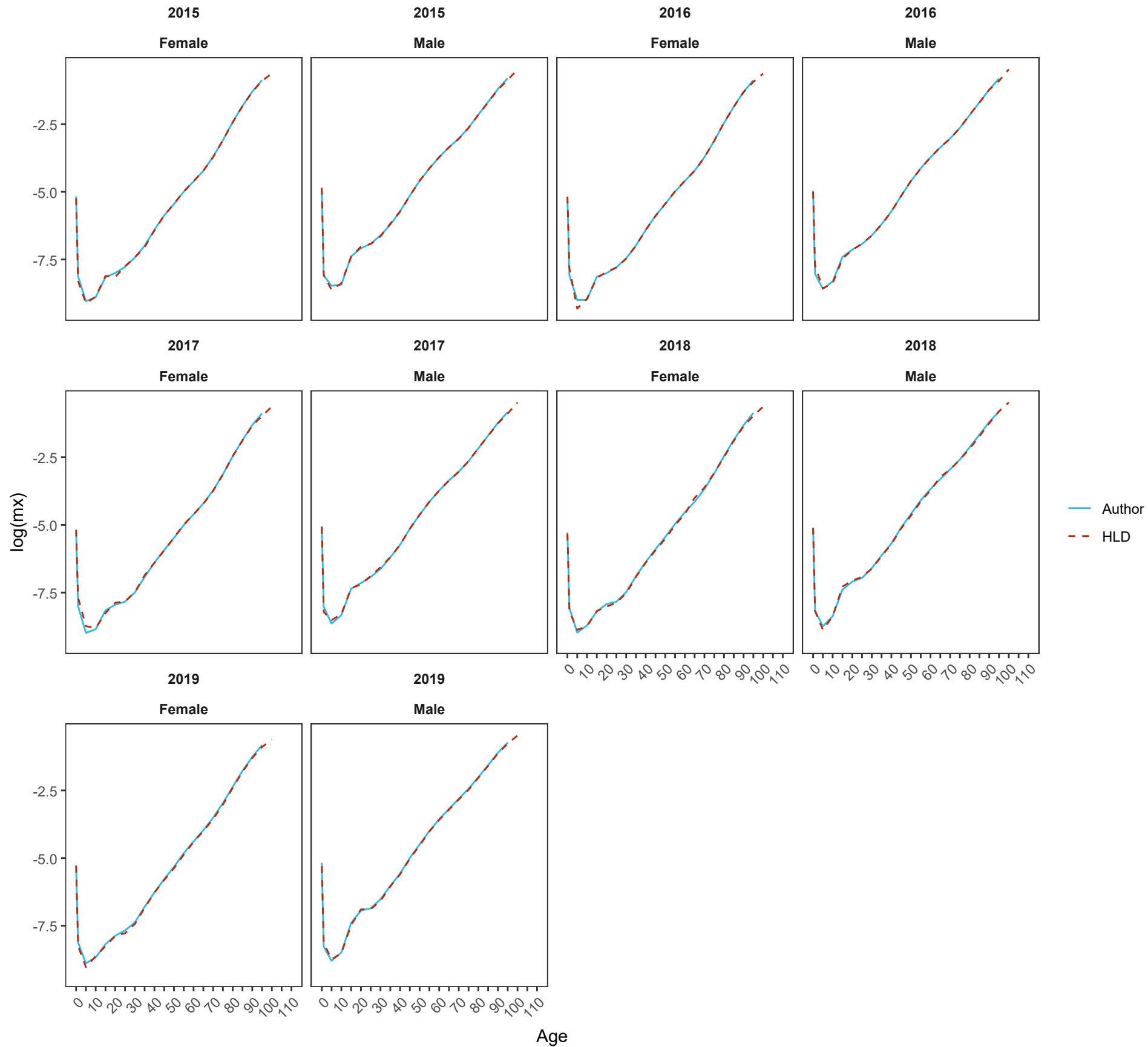


Figure S2d

Comparison of age-group-specific logged mortality rates (Brazil),
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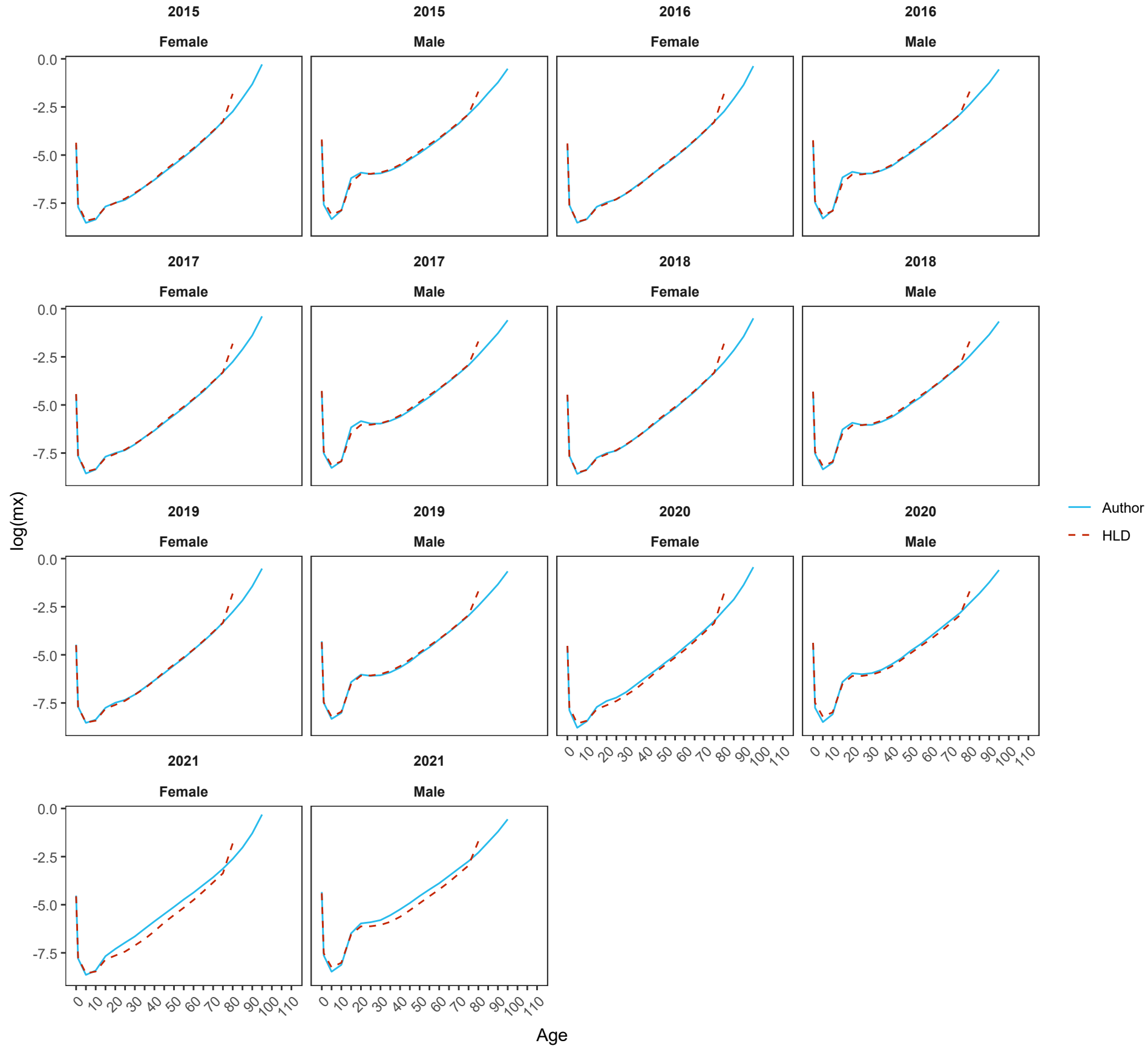


Figure S2e

Comparison of age-group-specific logged mortality rates (Canada), author data set (solid line) vs. HLD (dashed line)

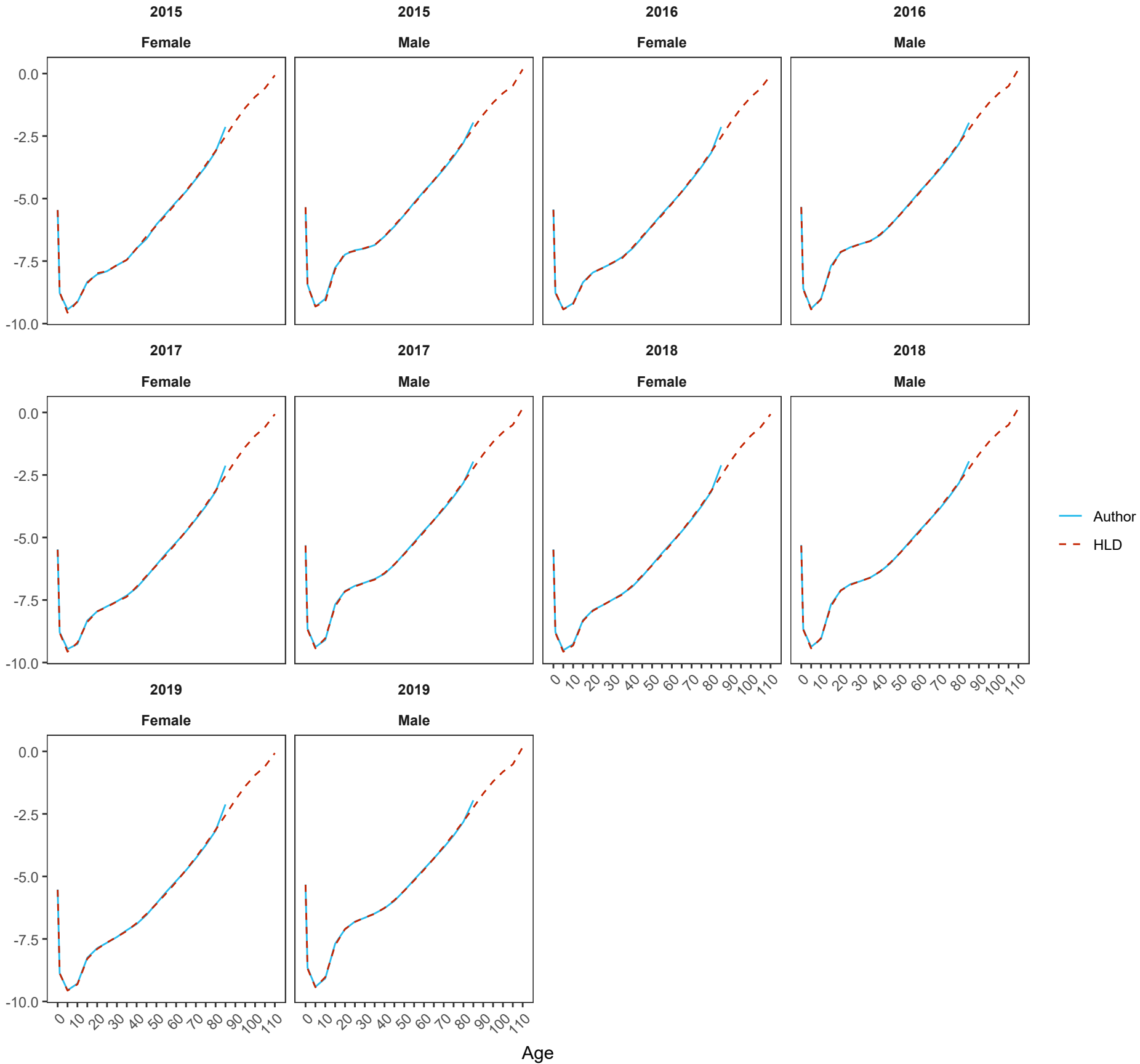


Figure S2f

Comparison of age-group-specific logged mortality rates (Switzerland), author data set (solid line) vs. HLD (dashed line)

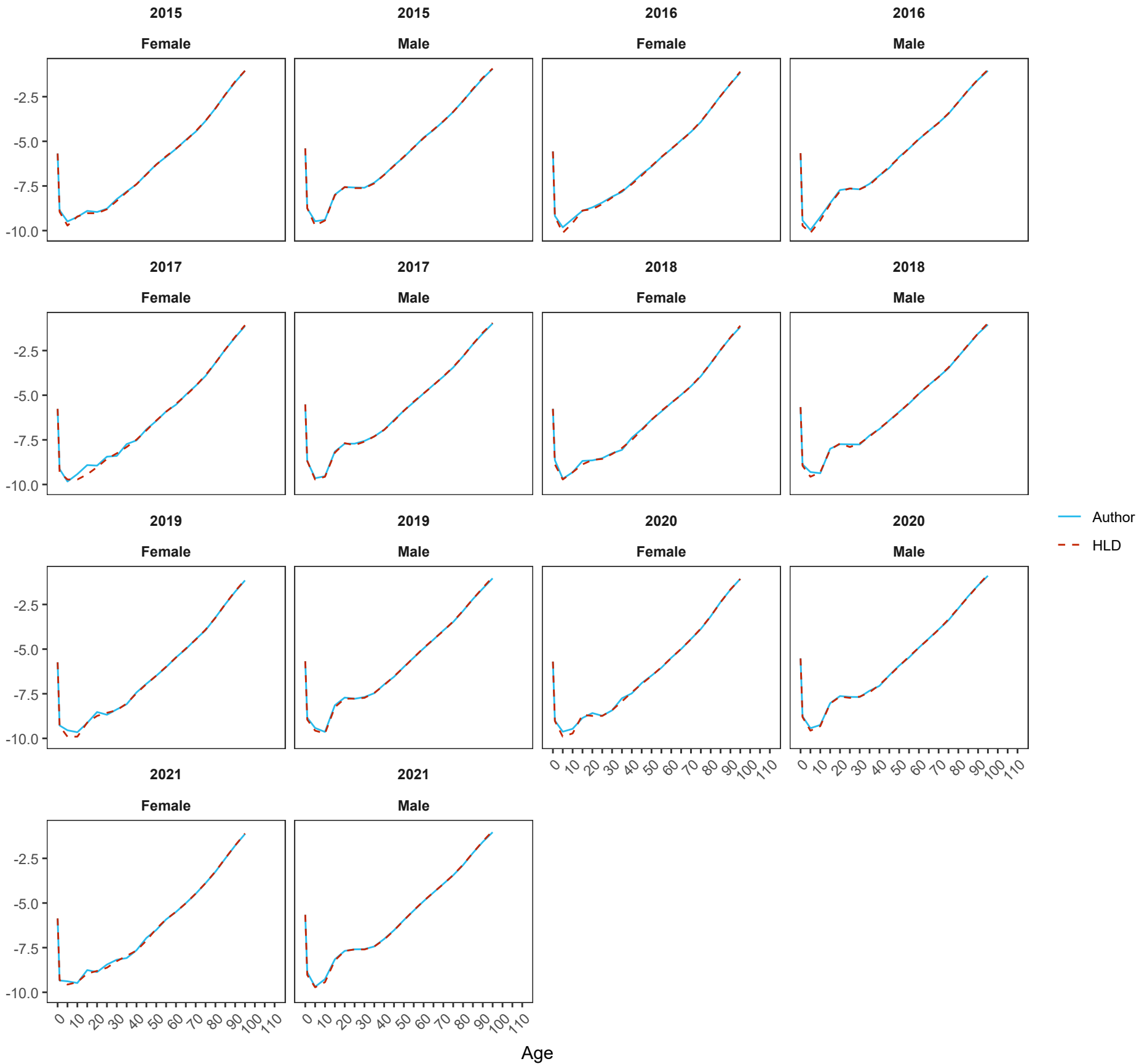


Figure S2g

Comparison of age-group-specific logged mortality rates (Czechia),
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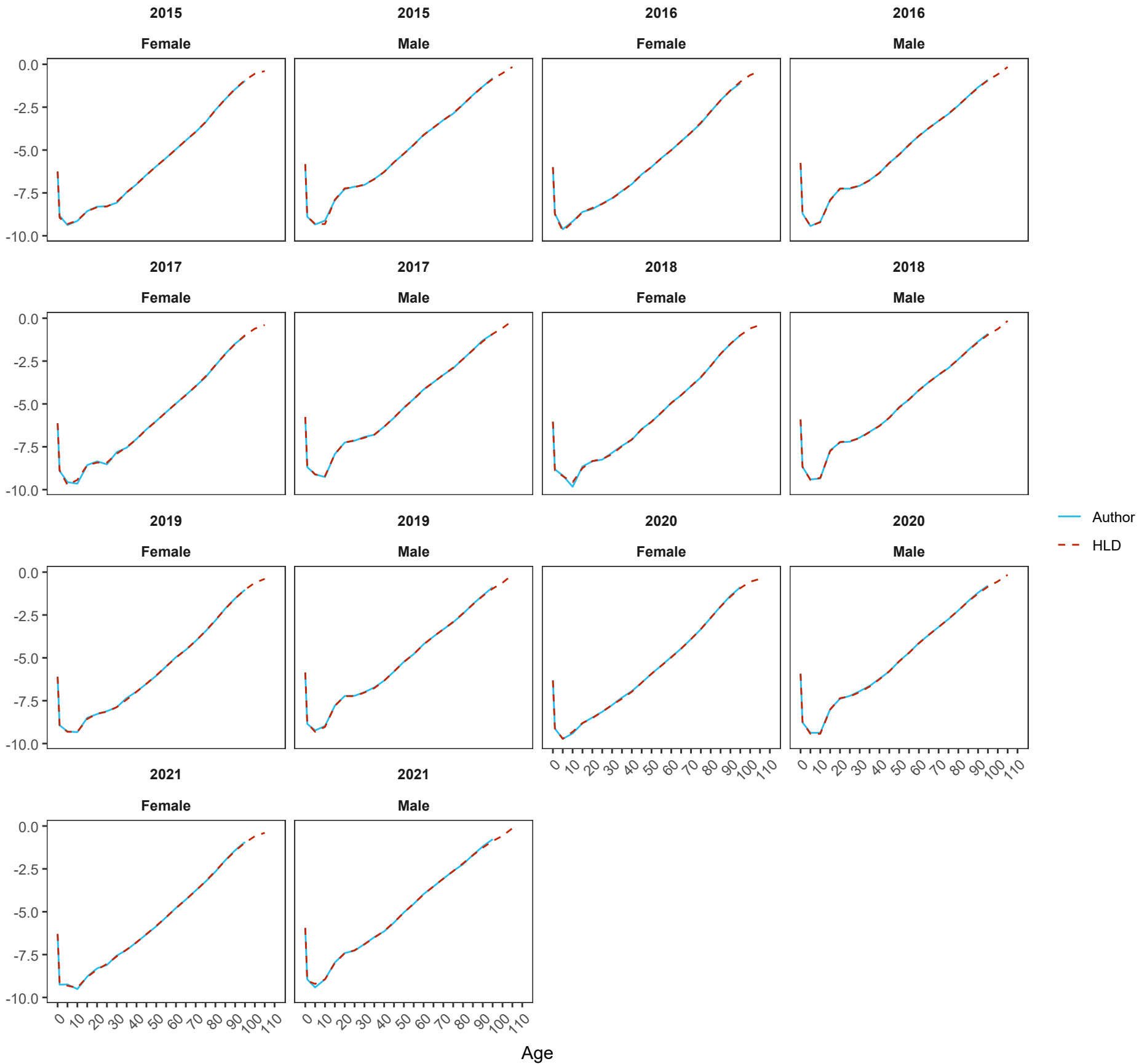


Figure S2h

Comparison of age-group-specific logged mortality rates (Denmark),
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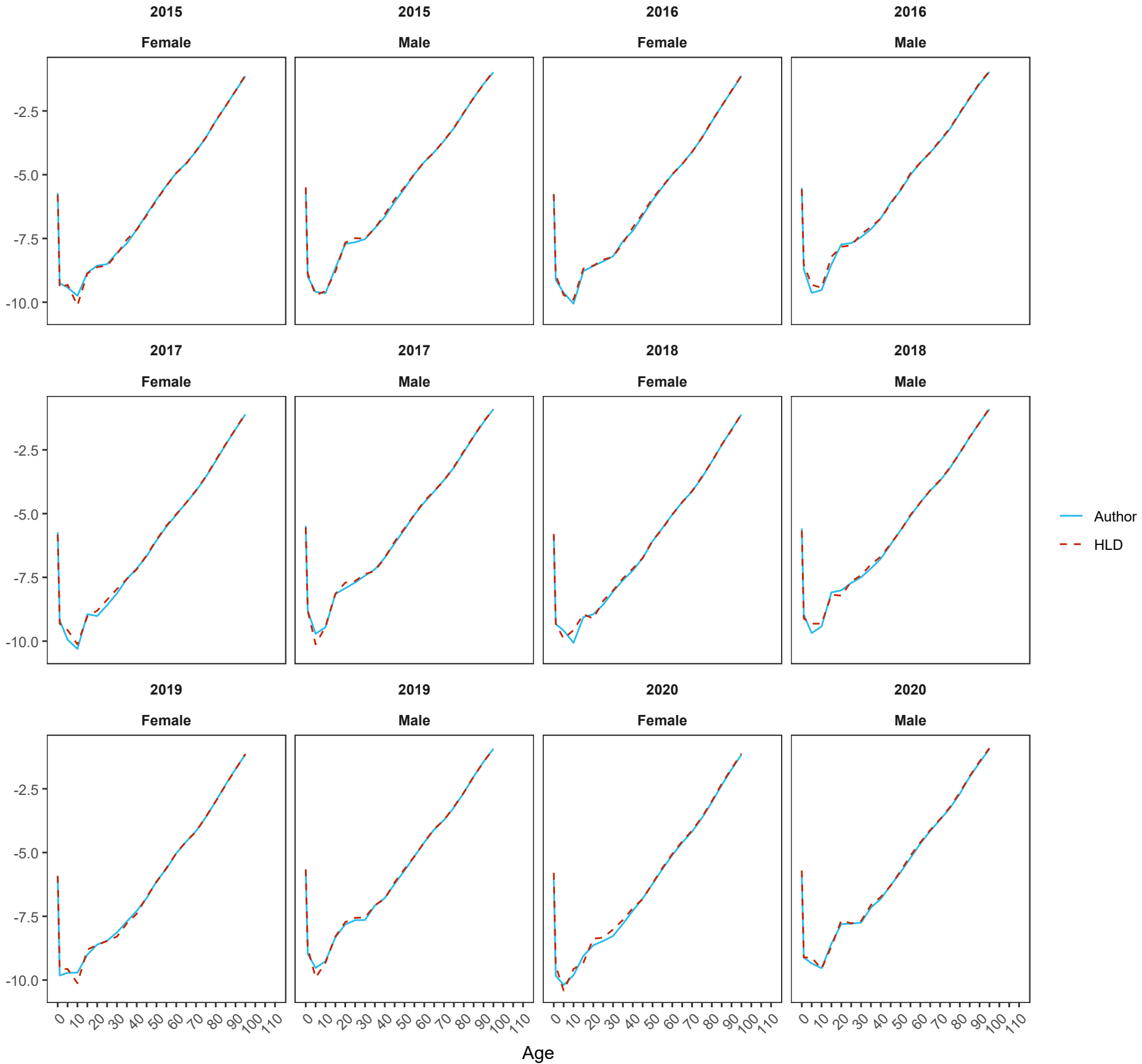


Figure S2i

Comparison of age-group-specific logged mortality rates (Spain),
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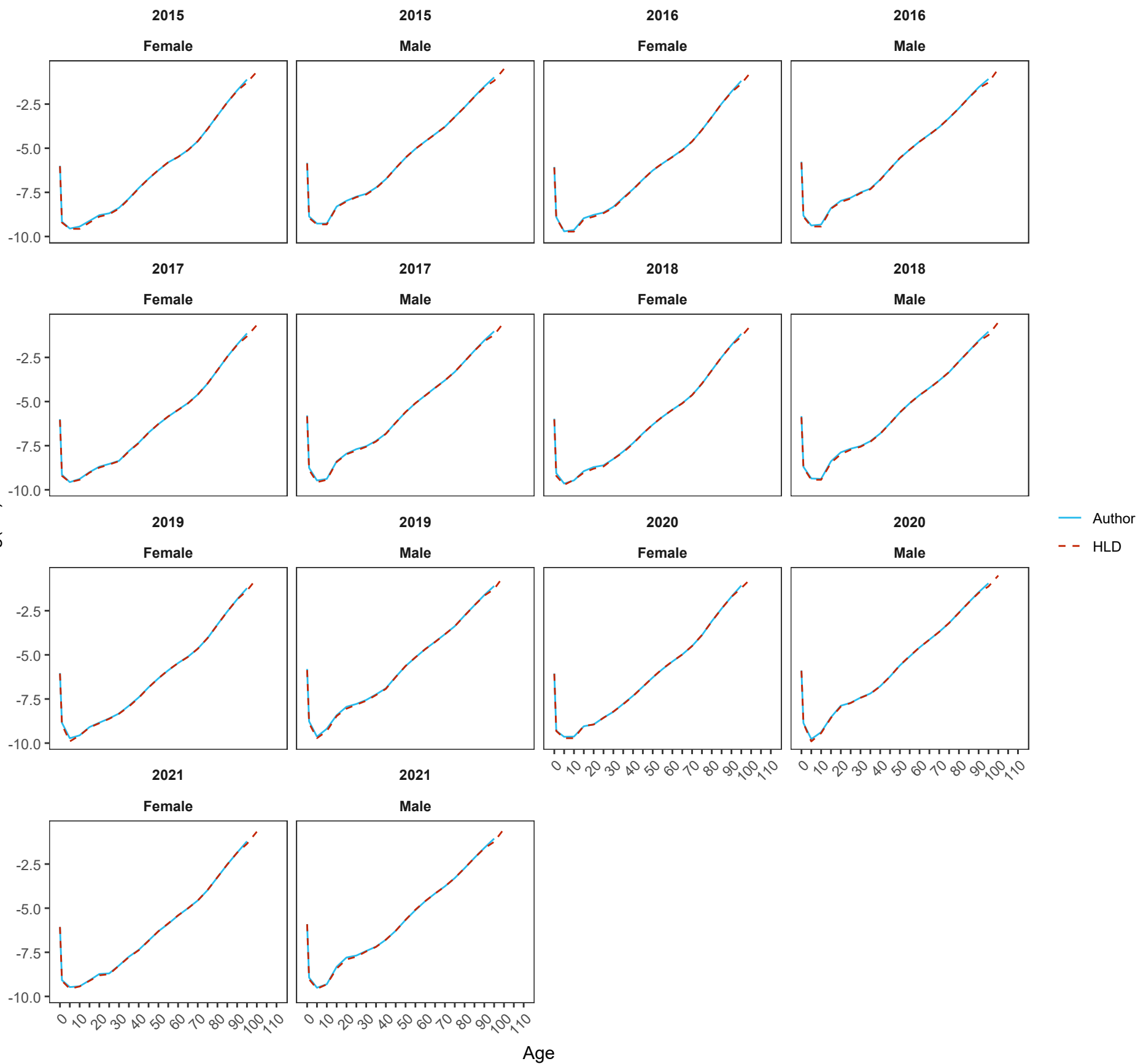


Figure S2j

Comparison of age-group-specific logged mortality rates (Hungary),
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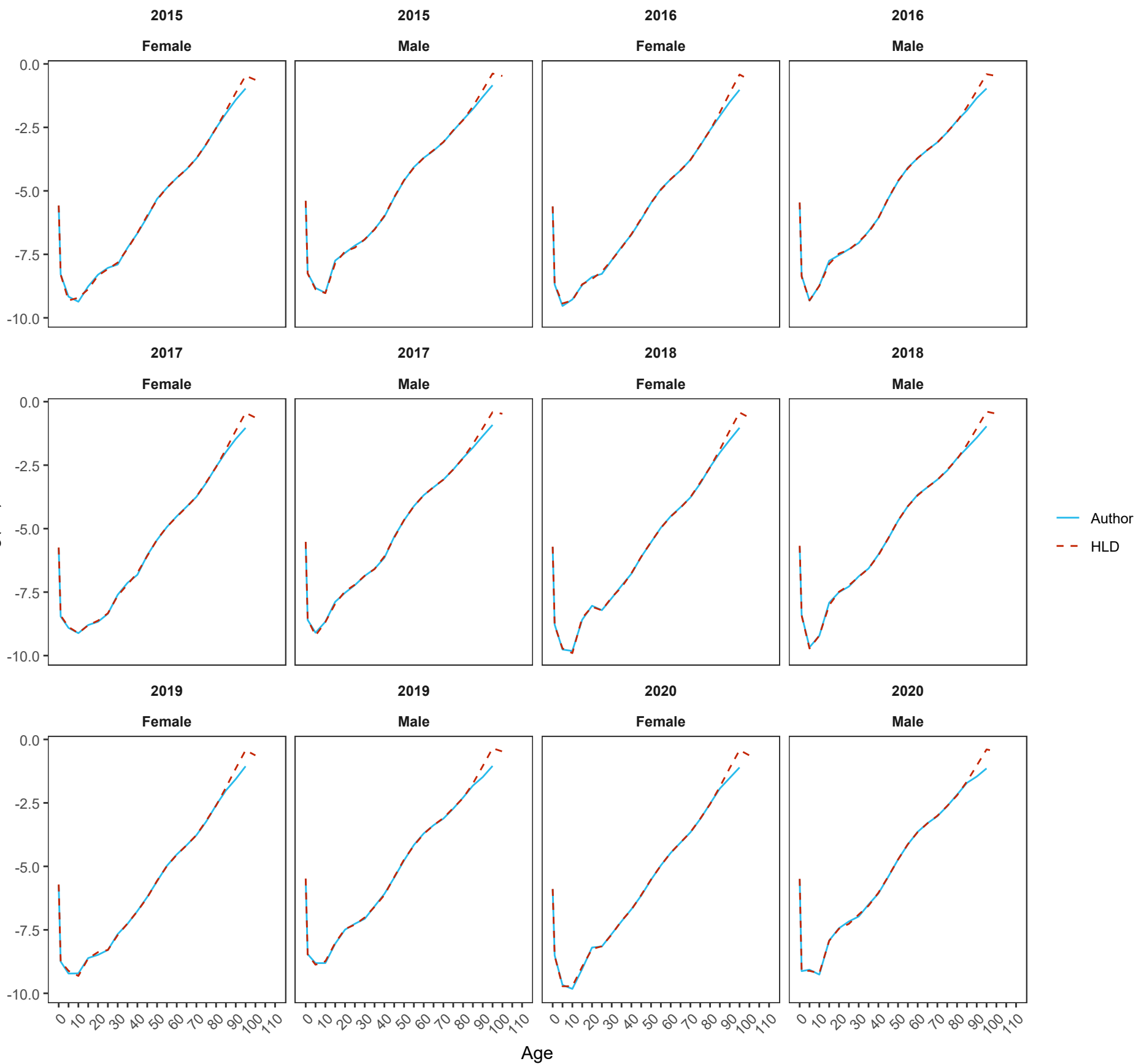


Figure S2k

Comparison of age-group-specific logged mortality rates (Japan),
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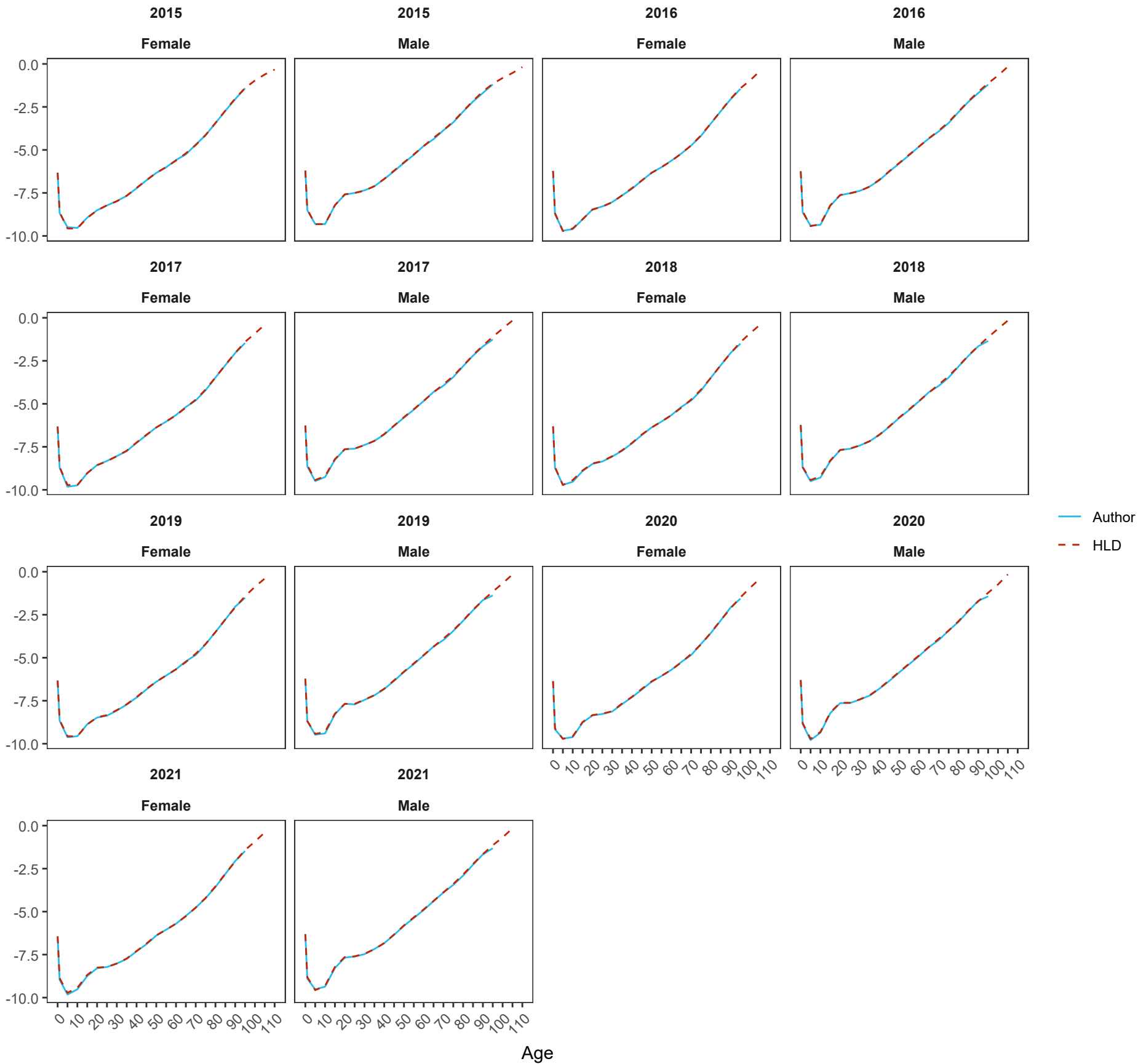


Figure S2I

Comparison of age-group-specific logged mortality rates (South Korea),
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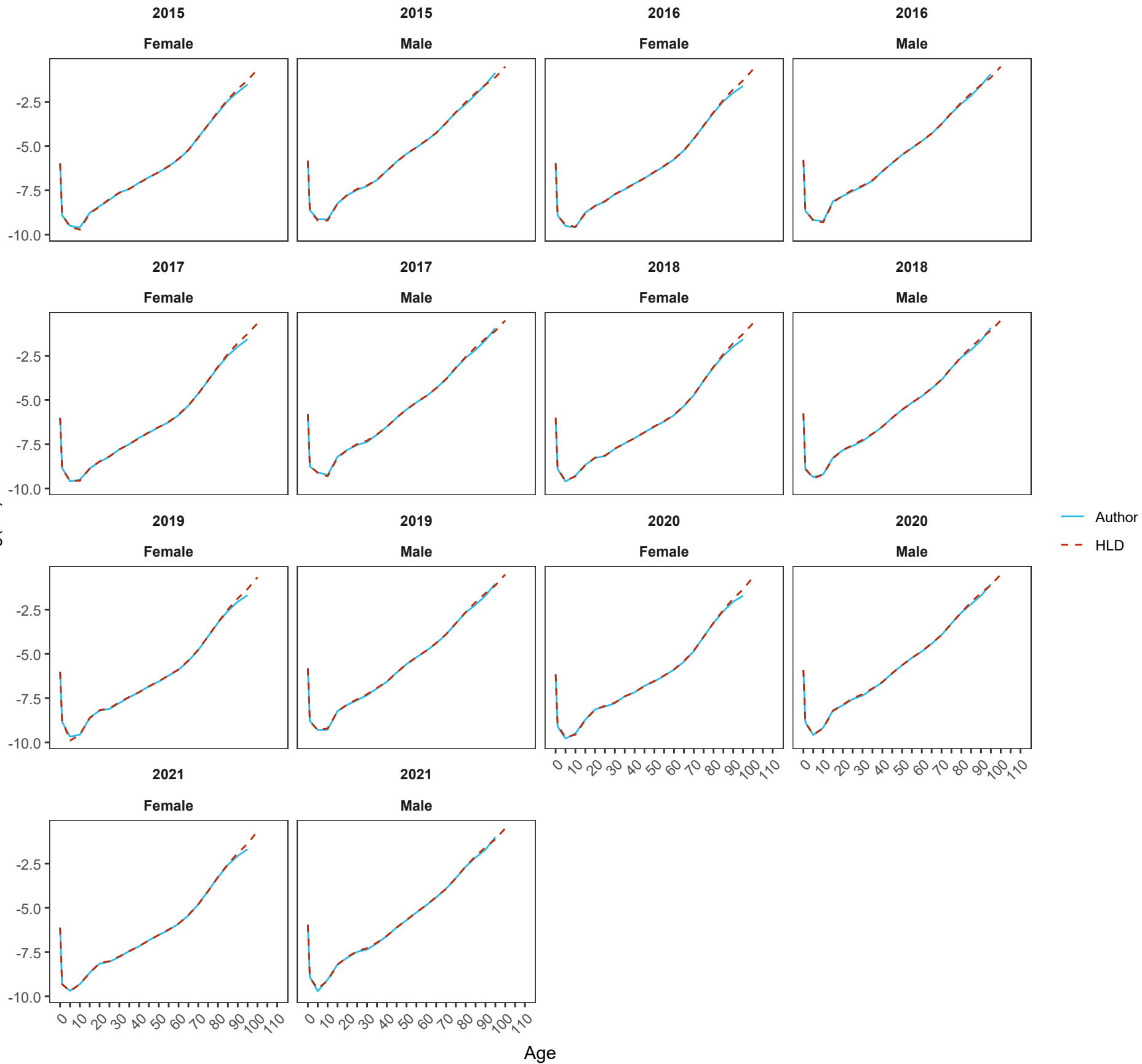


Figure S2m

Comparison of age-group-specific logged mortality rates (Latvia),
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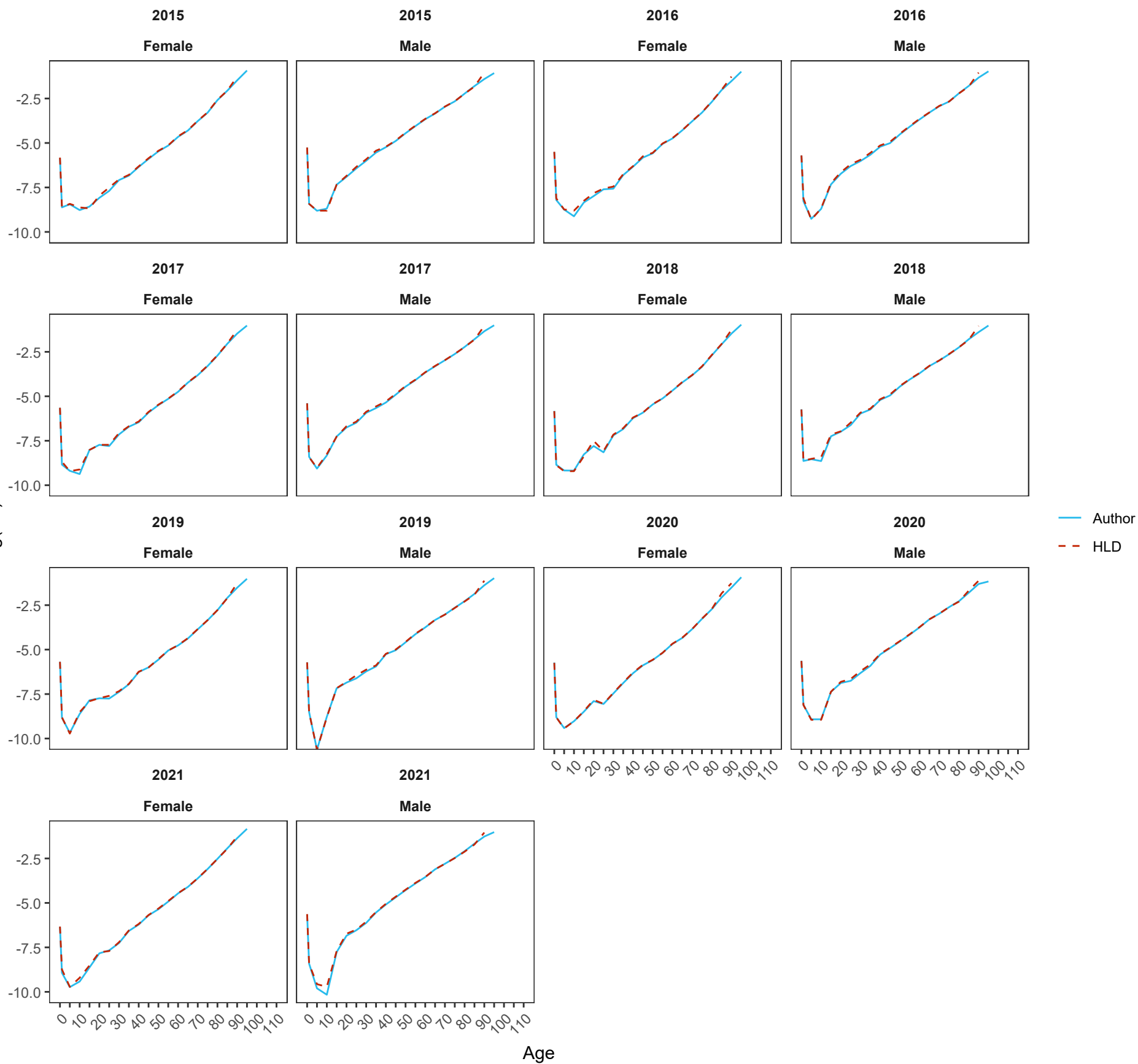


Figure S2n

Comparison of age-group-specific logged mortality rates (Netherlands),
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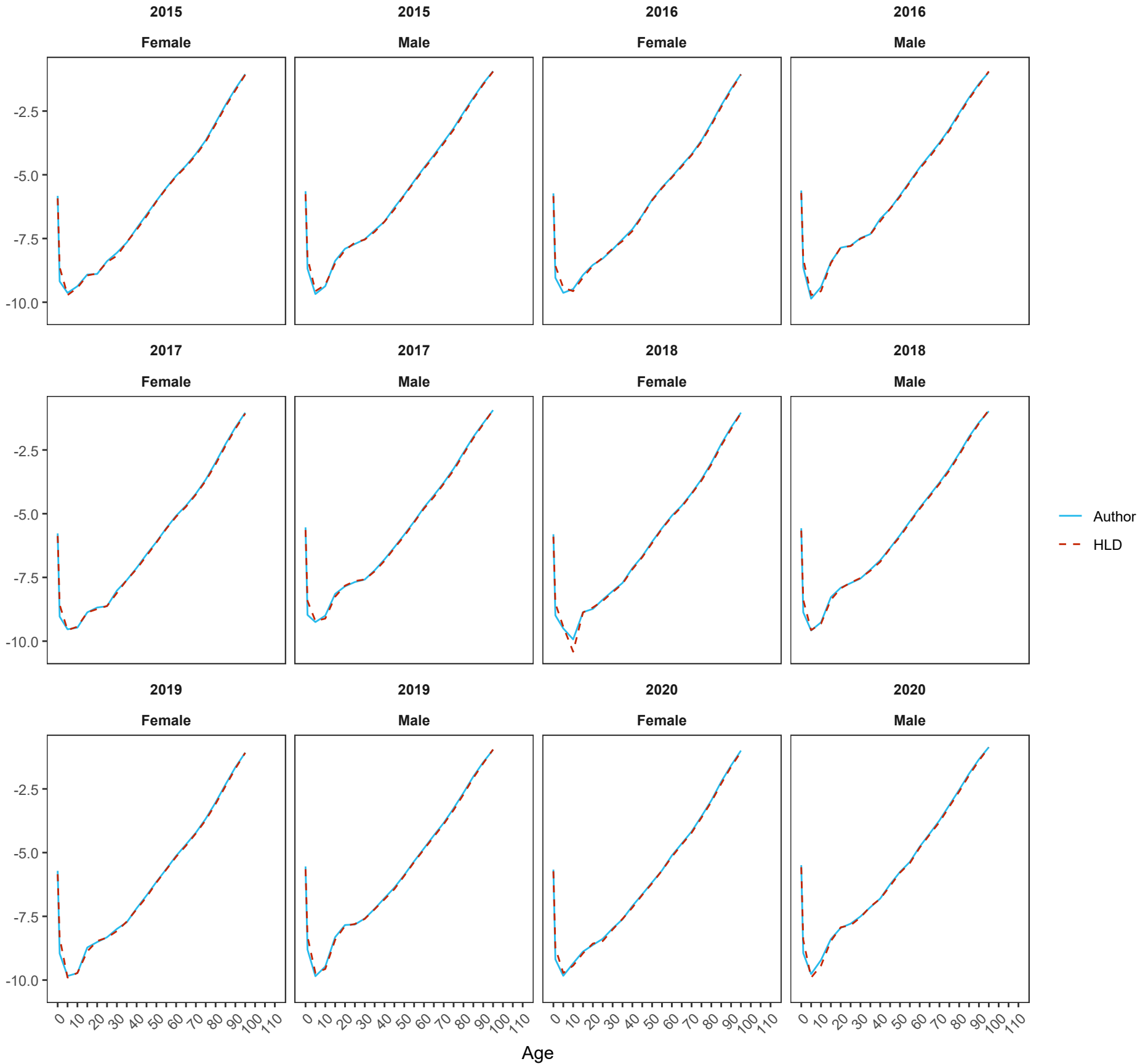


Figure S2o

Comparison of age-group-specific logged mortality rates (Poland),
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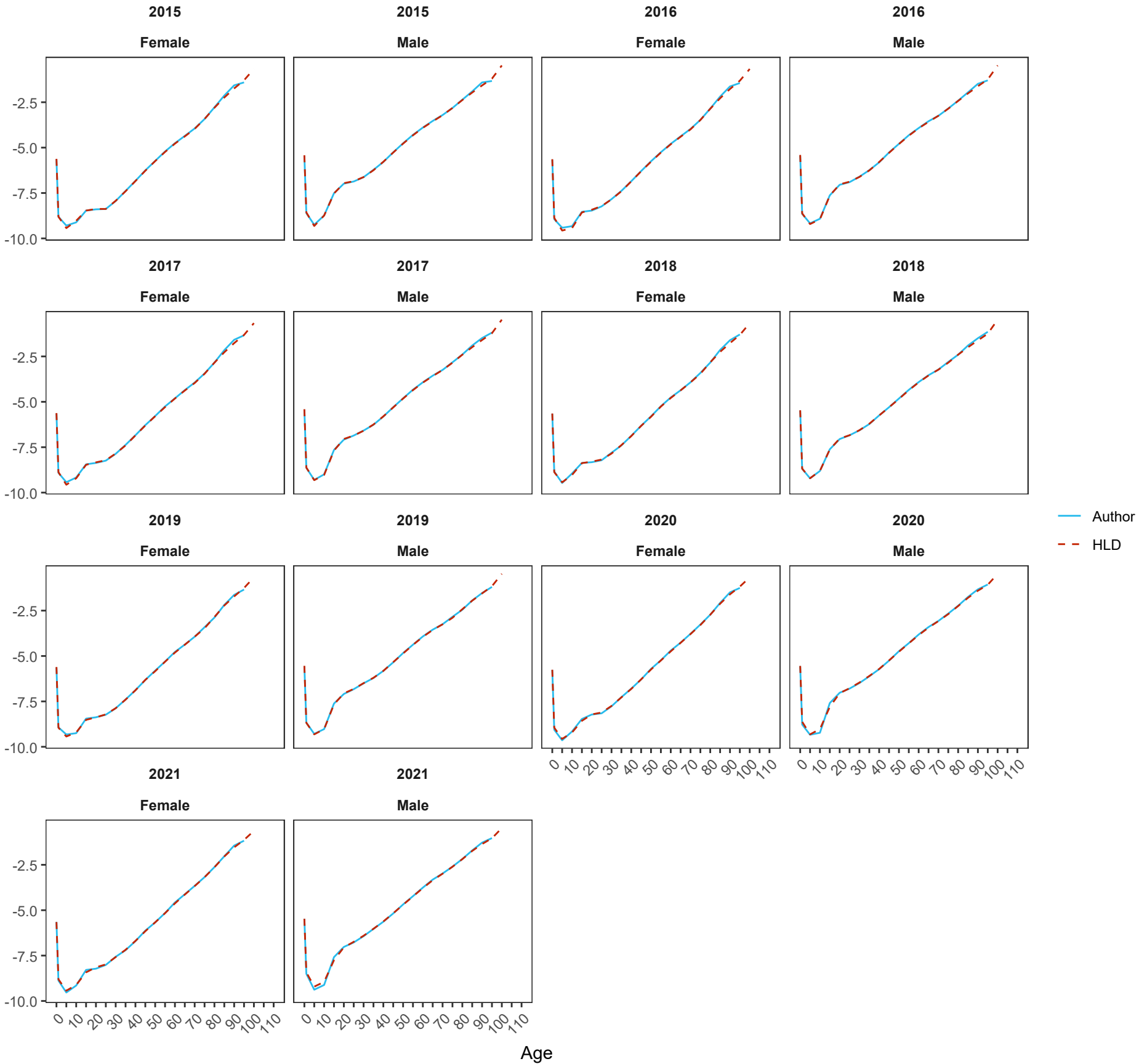


Figure S2p

Comparison of age-group-specific logged mortality rates (Russia),
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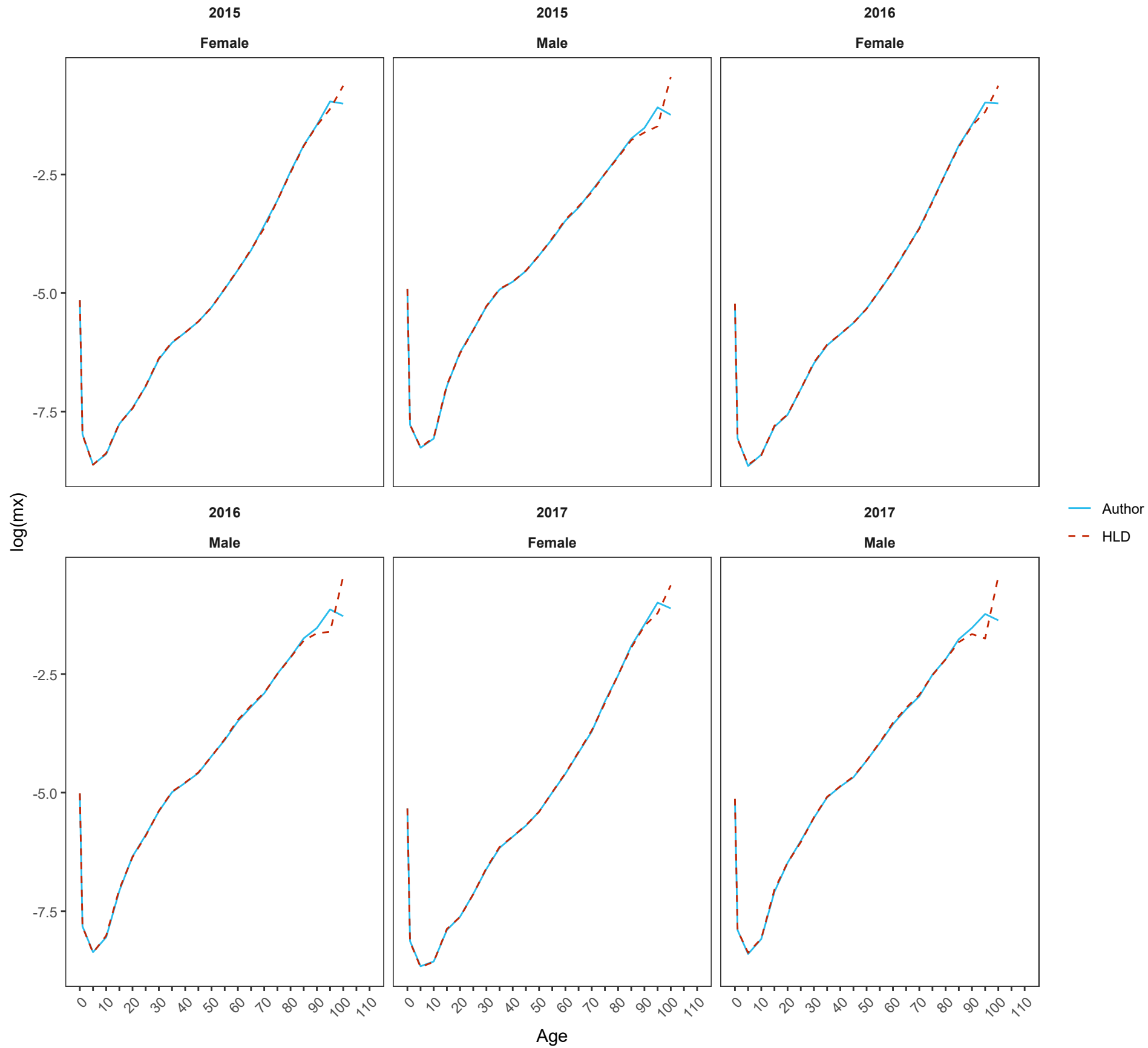


Figure S2q

Comparison of age-group-specific logged mortality rates (Sweden),
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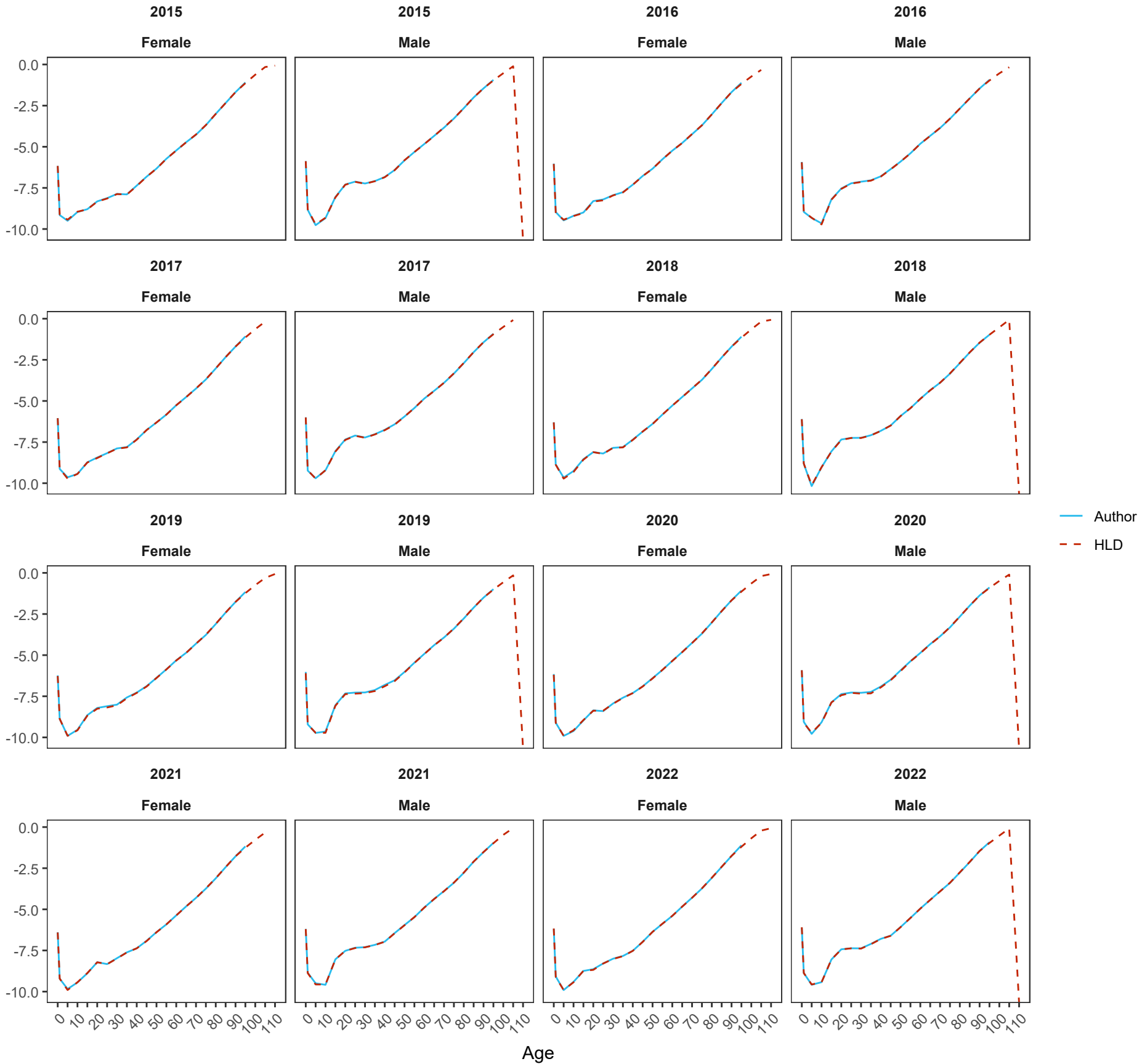


Figure S2r

Comparison of age-group-specific logged mortality rates (USA),
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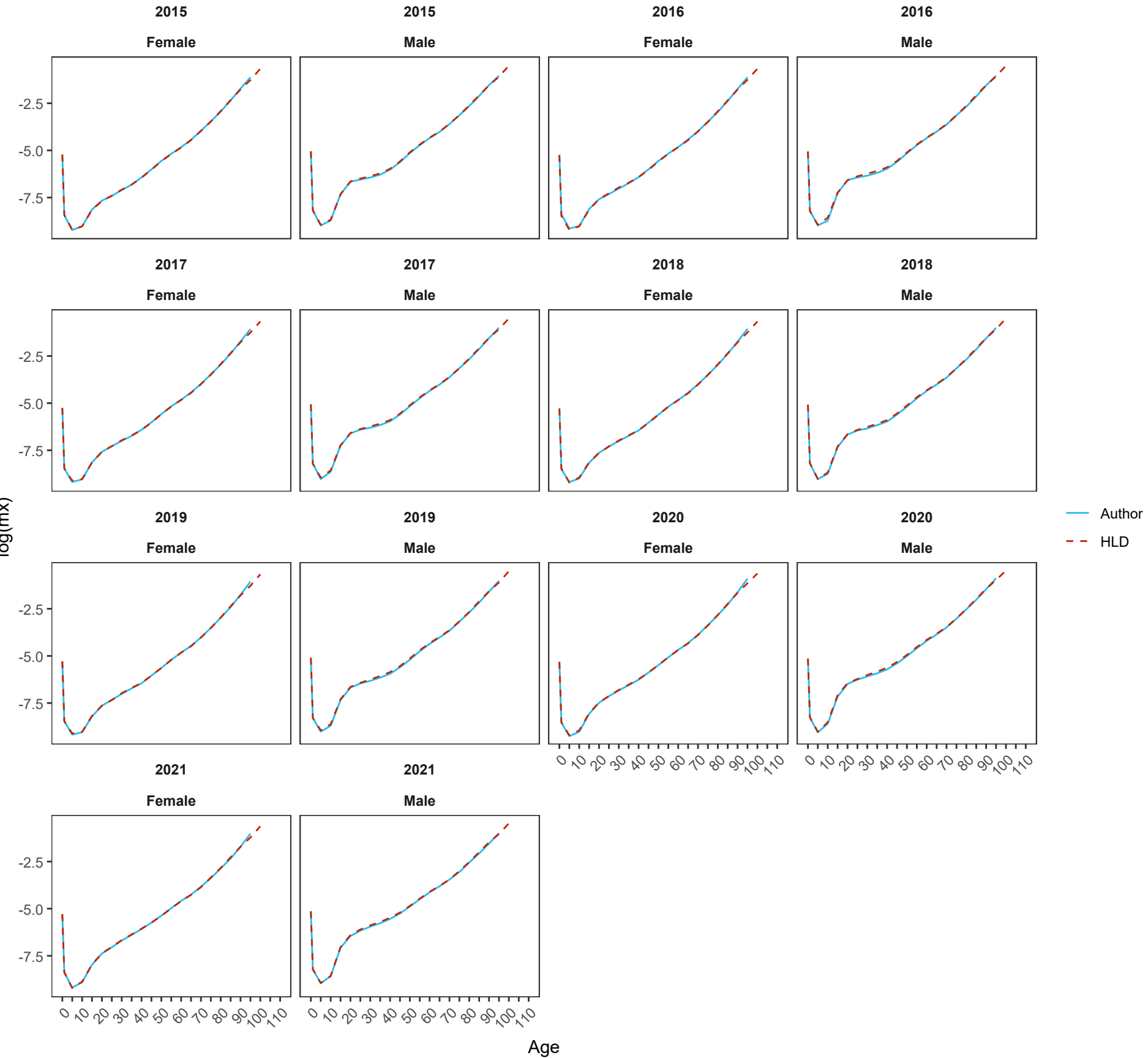


Figure S3a

Comparison of age-group-specific logged mortality rates (Australia),
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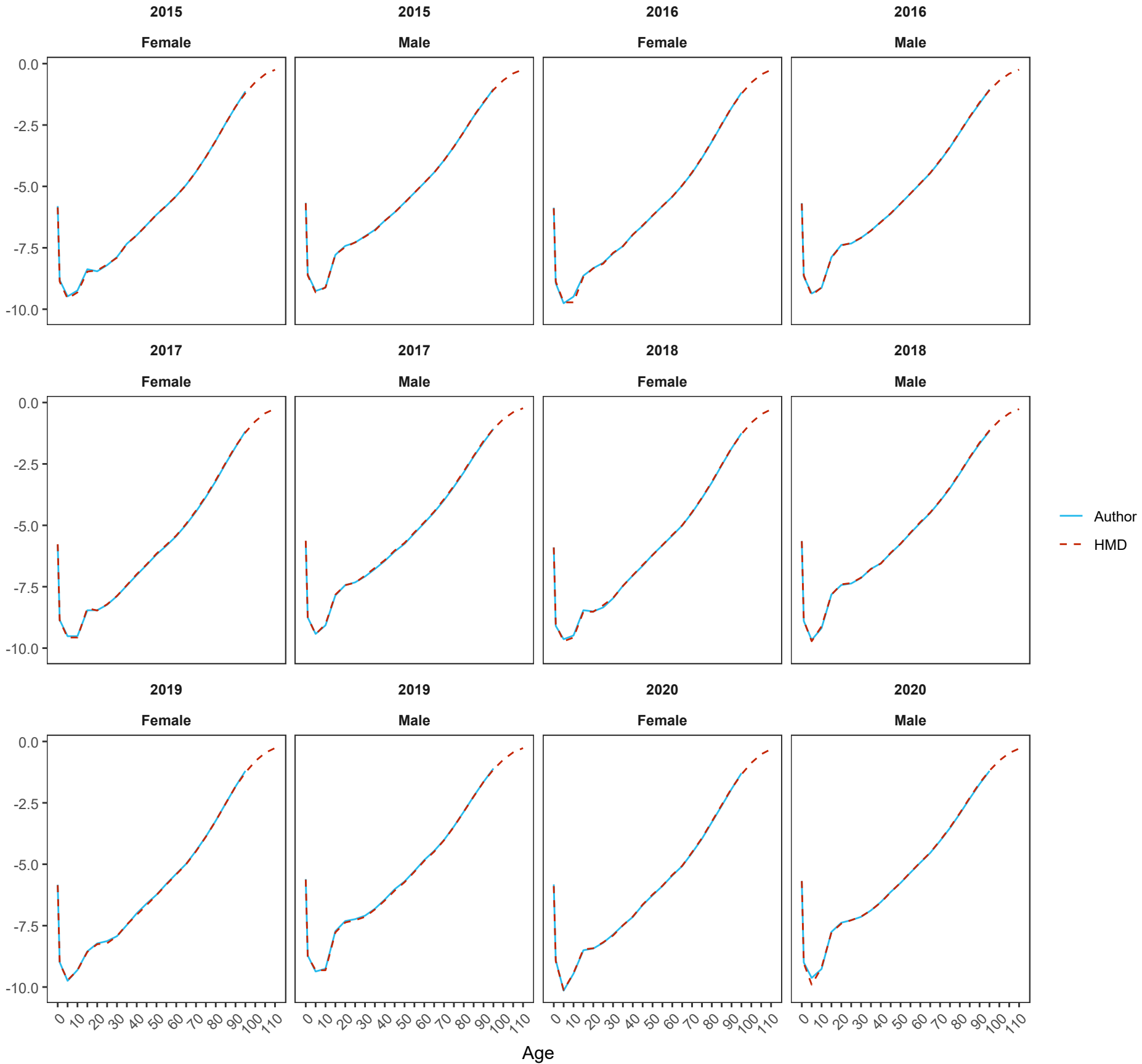


Figure S3b

Comparison of age-group-specific logged mortality rates (Austria), author data set (solid line) vs. HMD (dashed line)

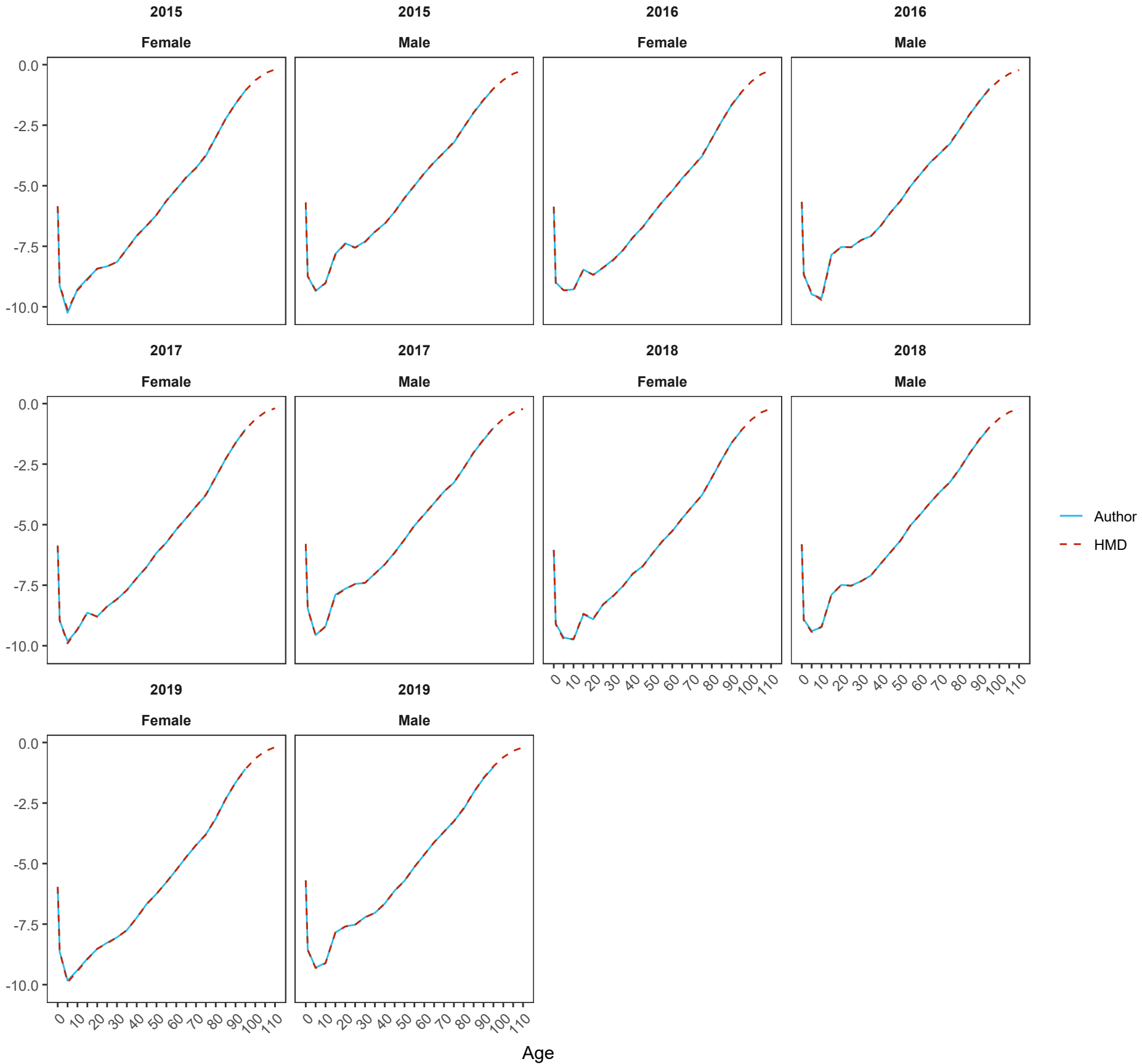


Figure S3c

Comparison of age-group-specific logged mortality rates (Bulgaria),
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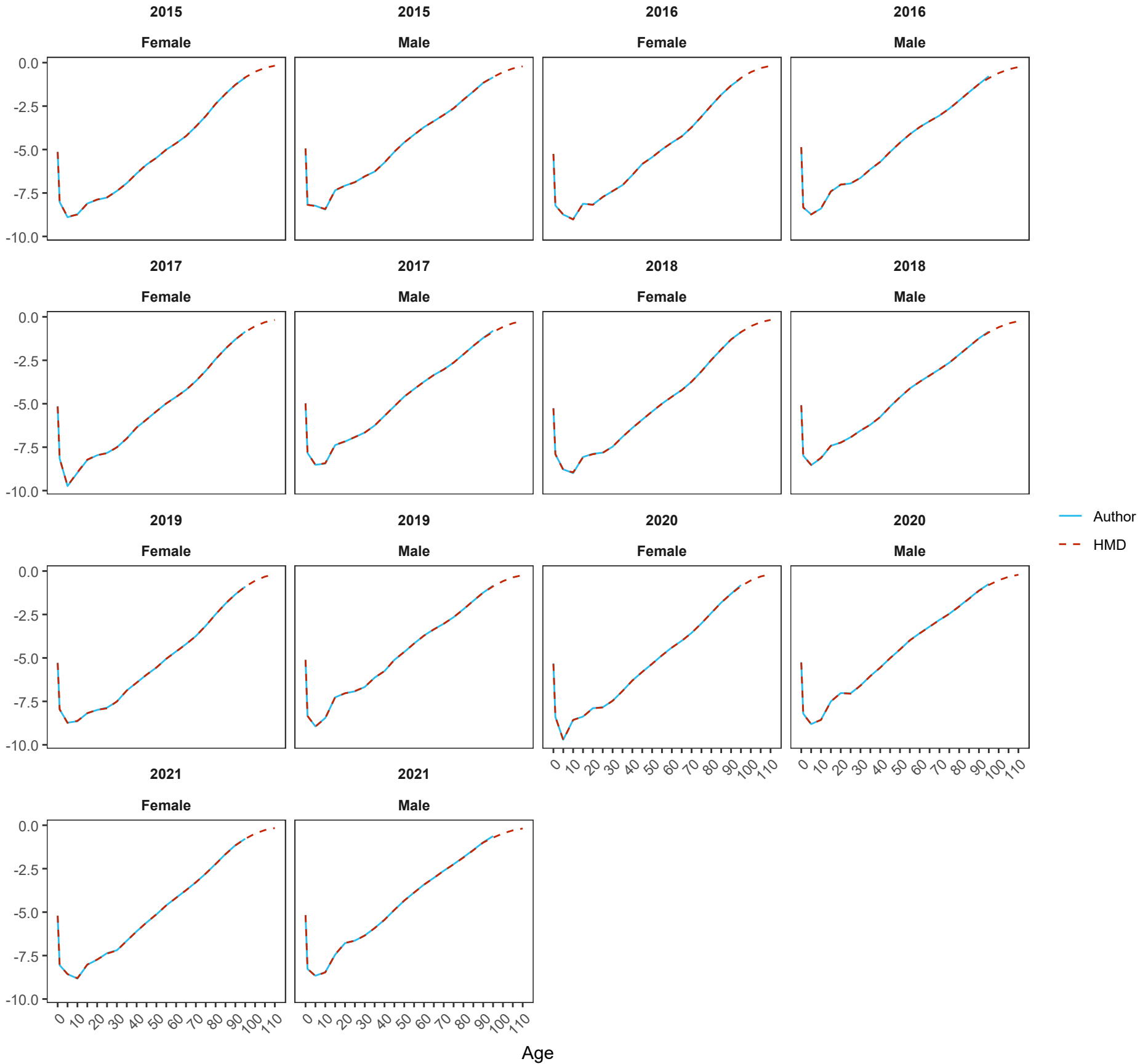


Figure S3d

Comparison of age-group-specific logged mortality rates (Canada), author data set (solid line) vs. HMD (dashed line)

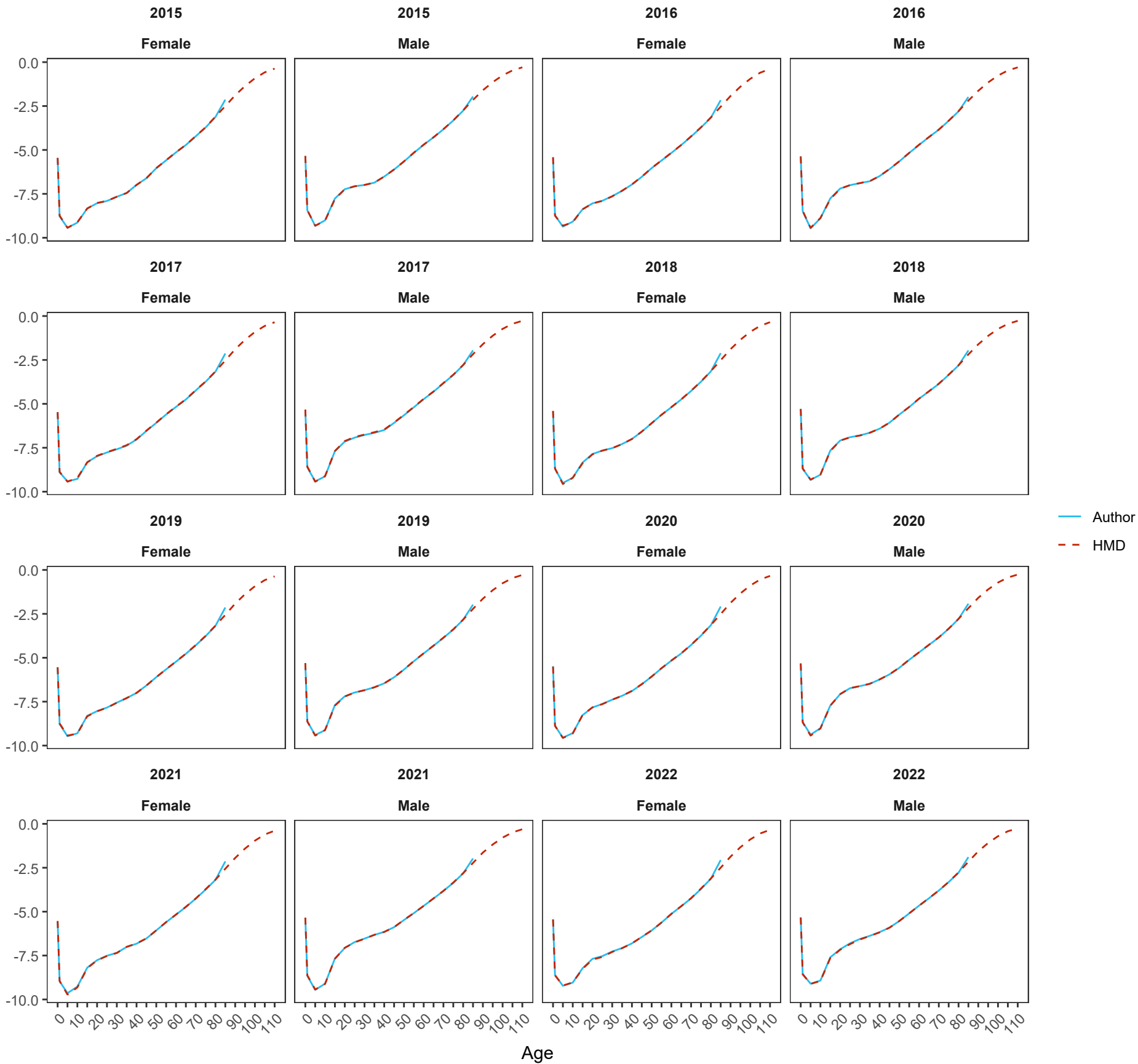


Figure S3e

Comparison of age-group-specific logged mortality rates (Chile), author data set (solid line) vs. HMD (dashed line)

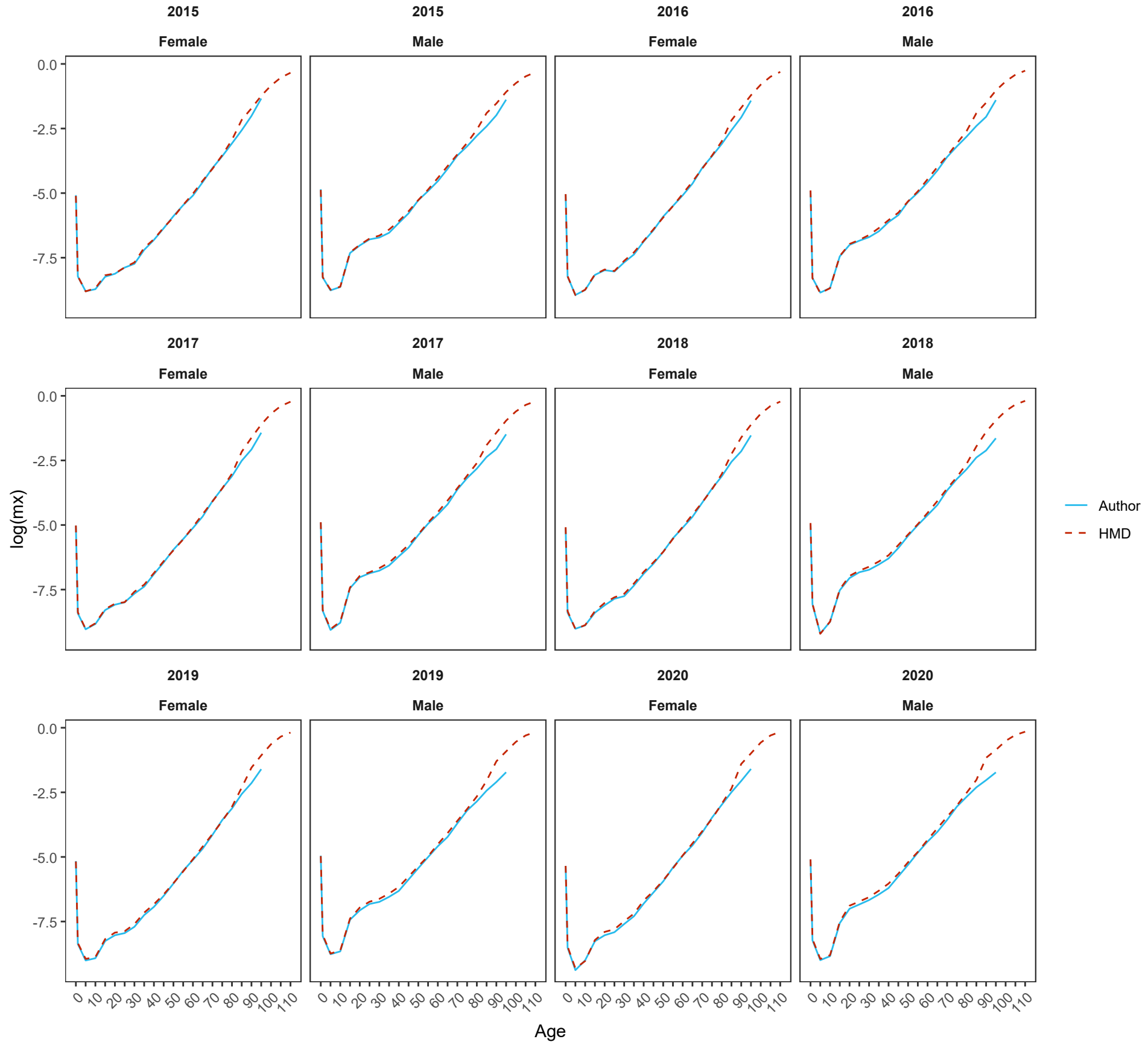


Figure S3f

Comparison of age-group-specific logged mortality rates (Croatia),
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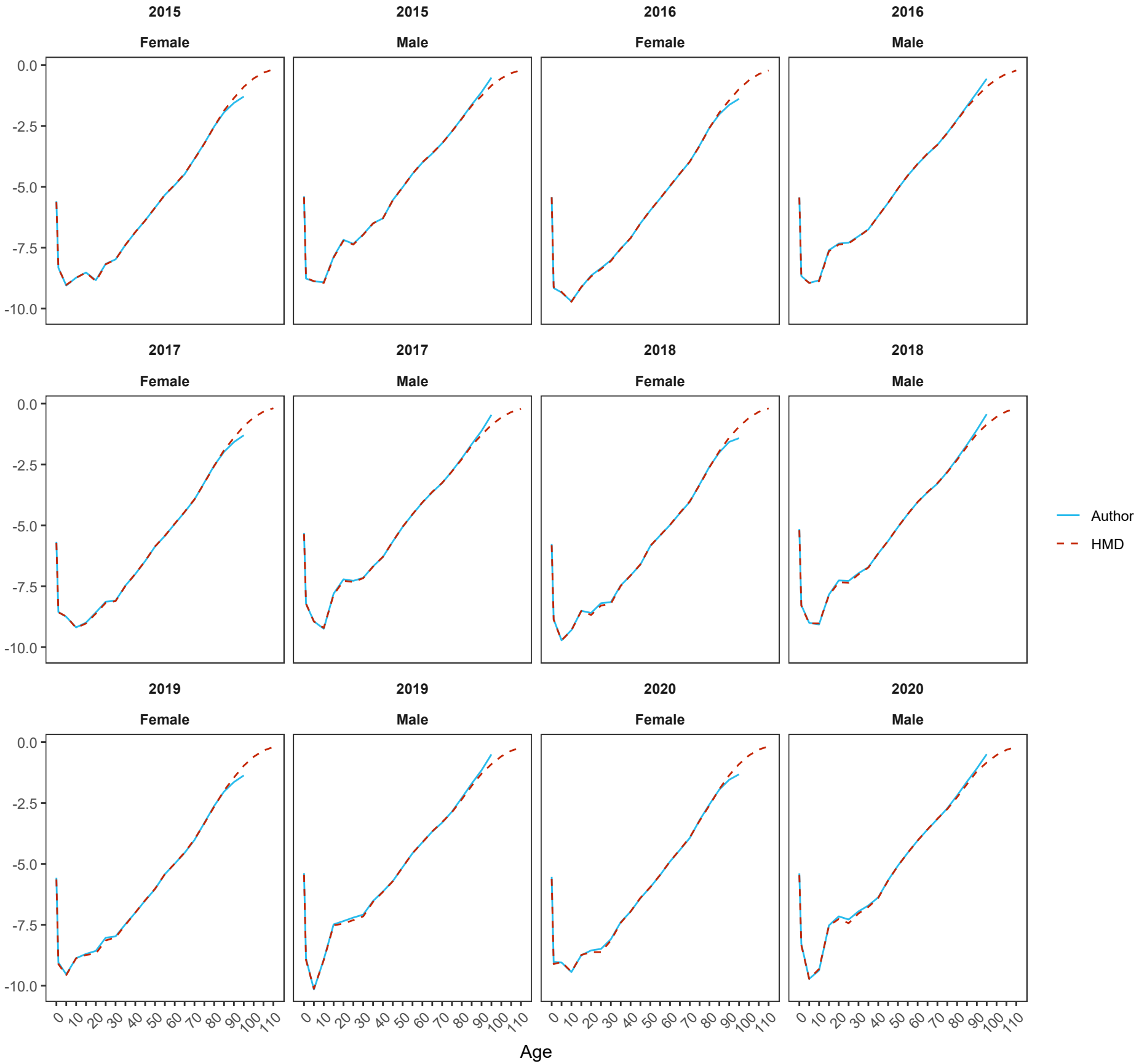


Figure S3g

Comparison of age-group-specific logged mortality rates (Czechia),
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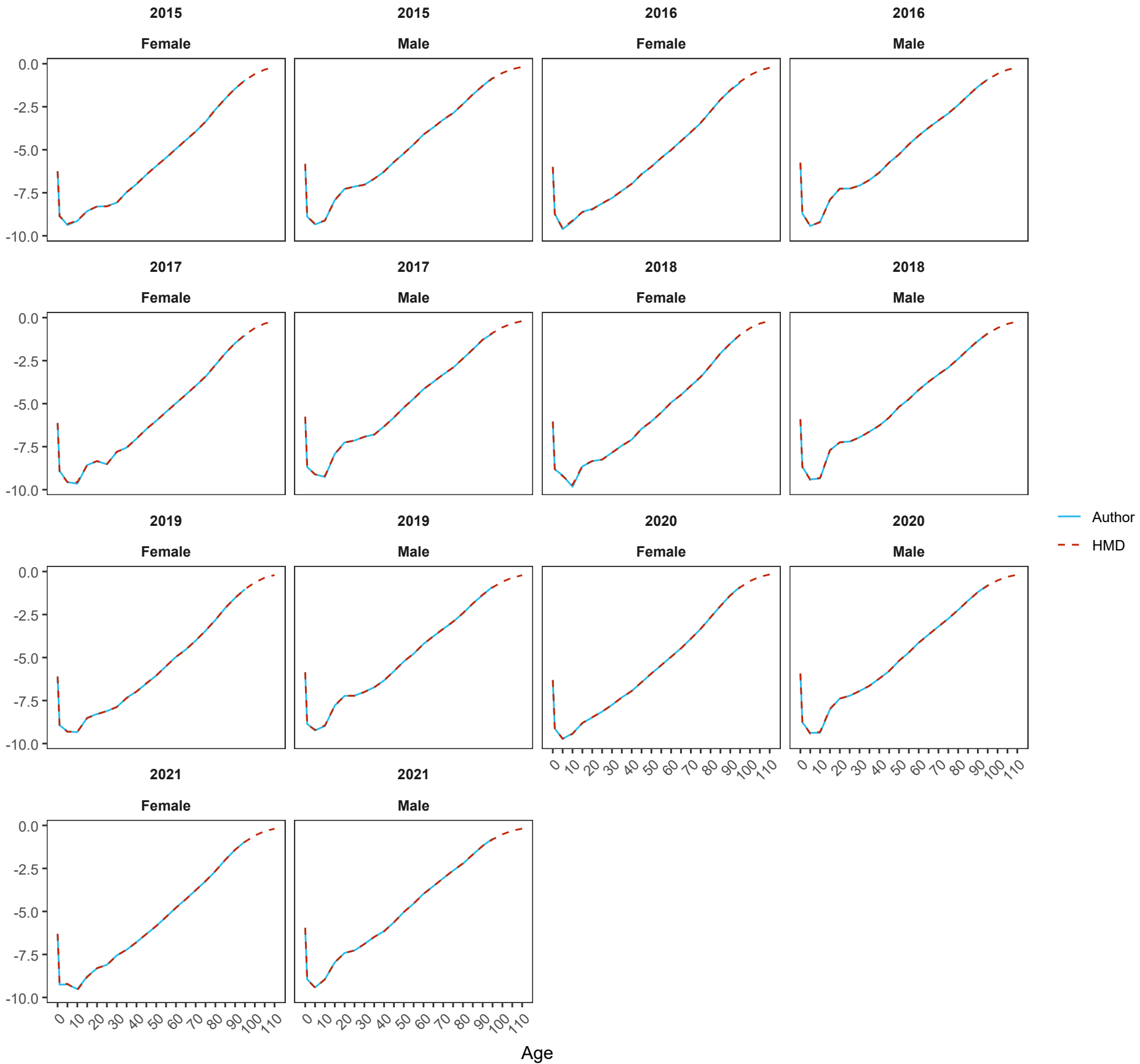


Figure S3h

Comparison of age-group-specific logged mortality rates (Denmark),
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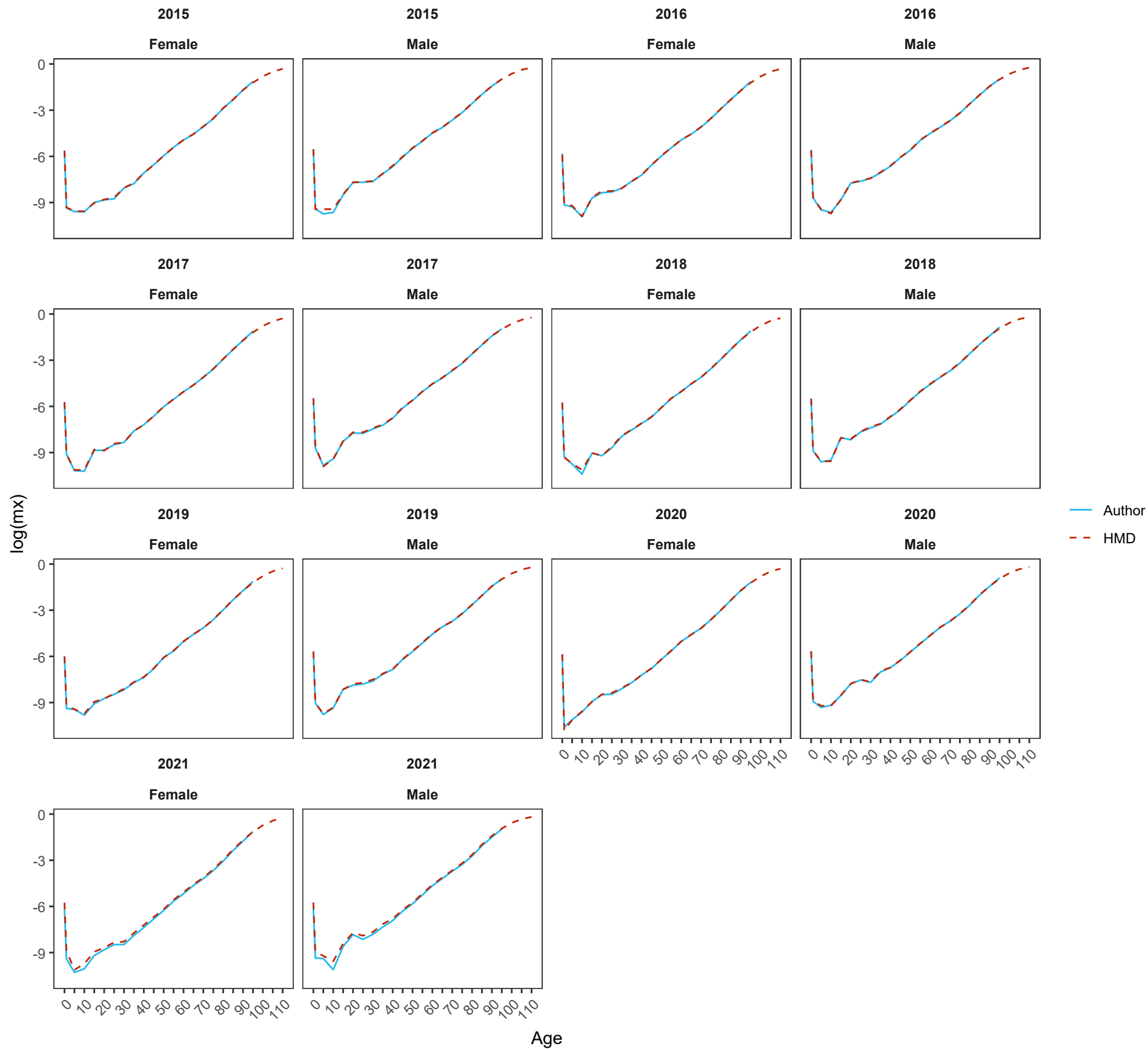


Figure S3i

Comparison of age-group-specific logged mortality rates (England and Wales), author data set (solid line) vs. HMD (dashed line)

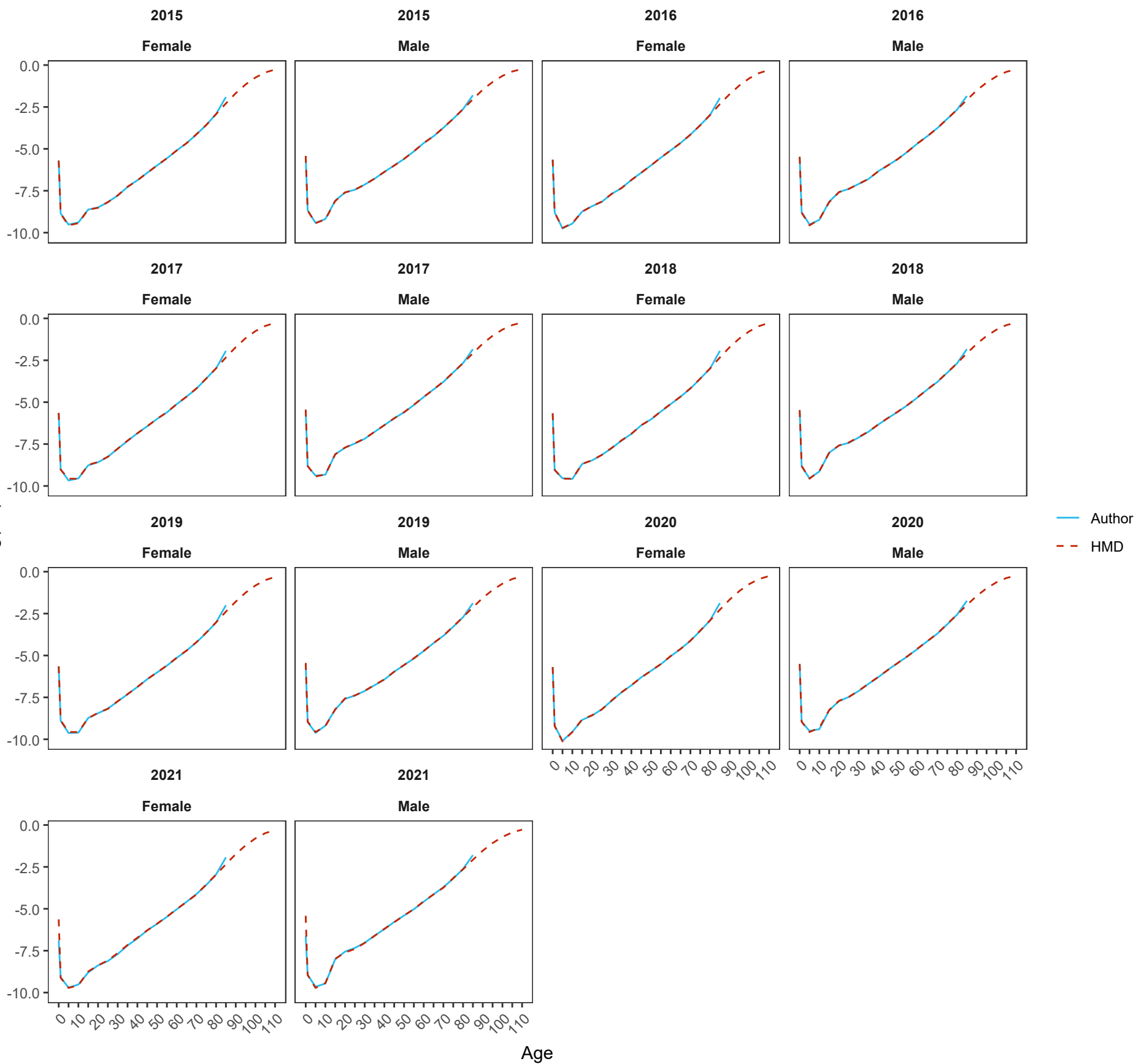


Figure S3j

Comparison of age-group-specific logged mortality rates (Hungary),
author data set (solid line) vs. HMD (dashed line)

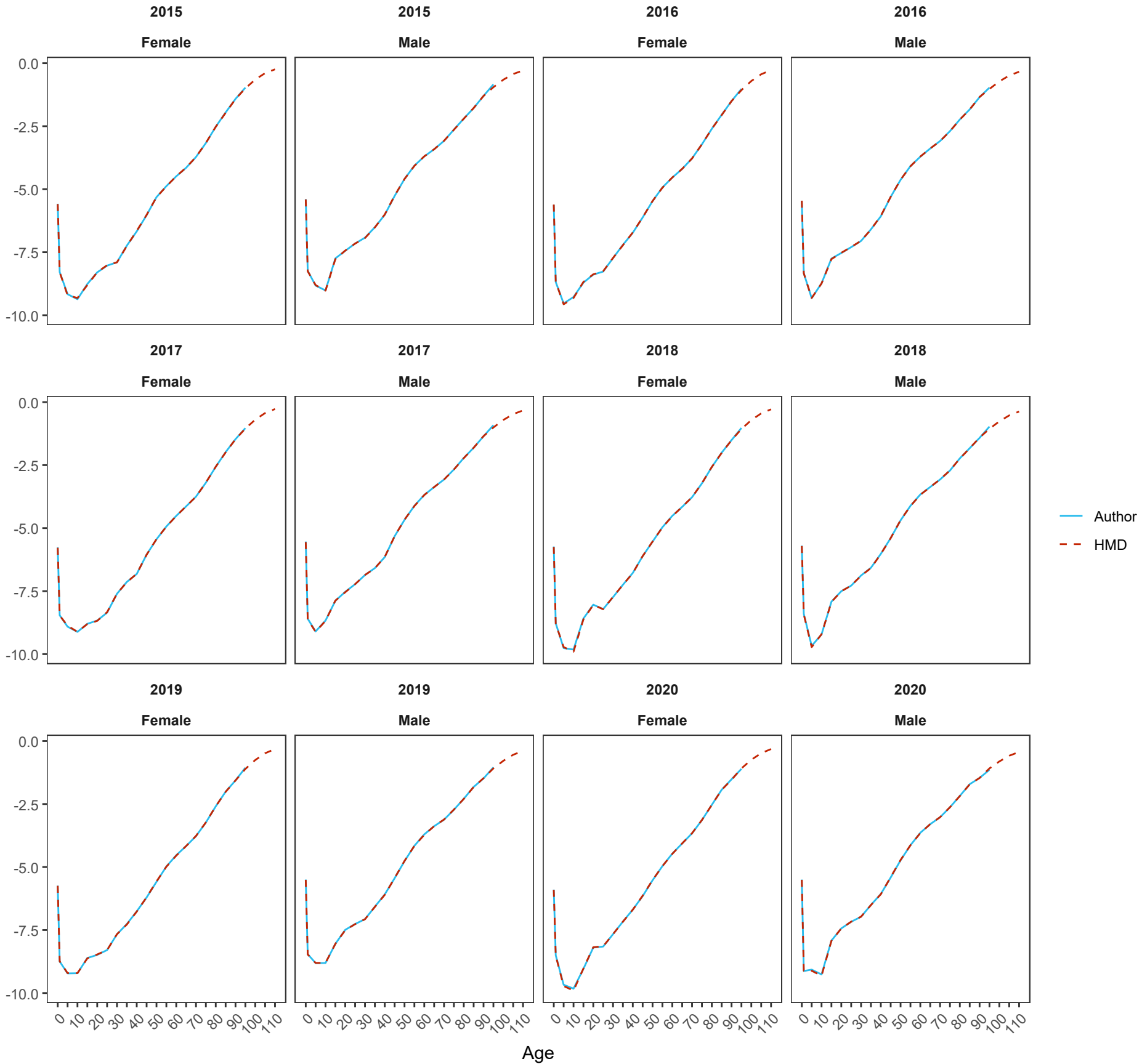


Figure S3k

Comparison of age-group-specific logged mortality rates (Japan),
author data set (solid line) vs. HMD (dashed line)

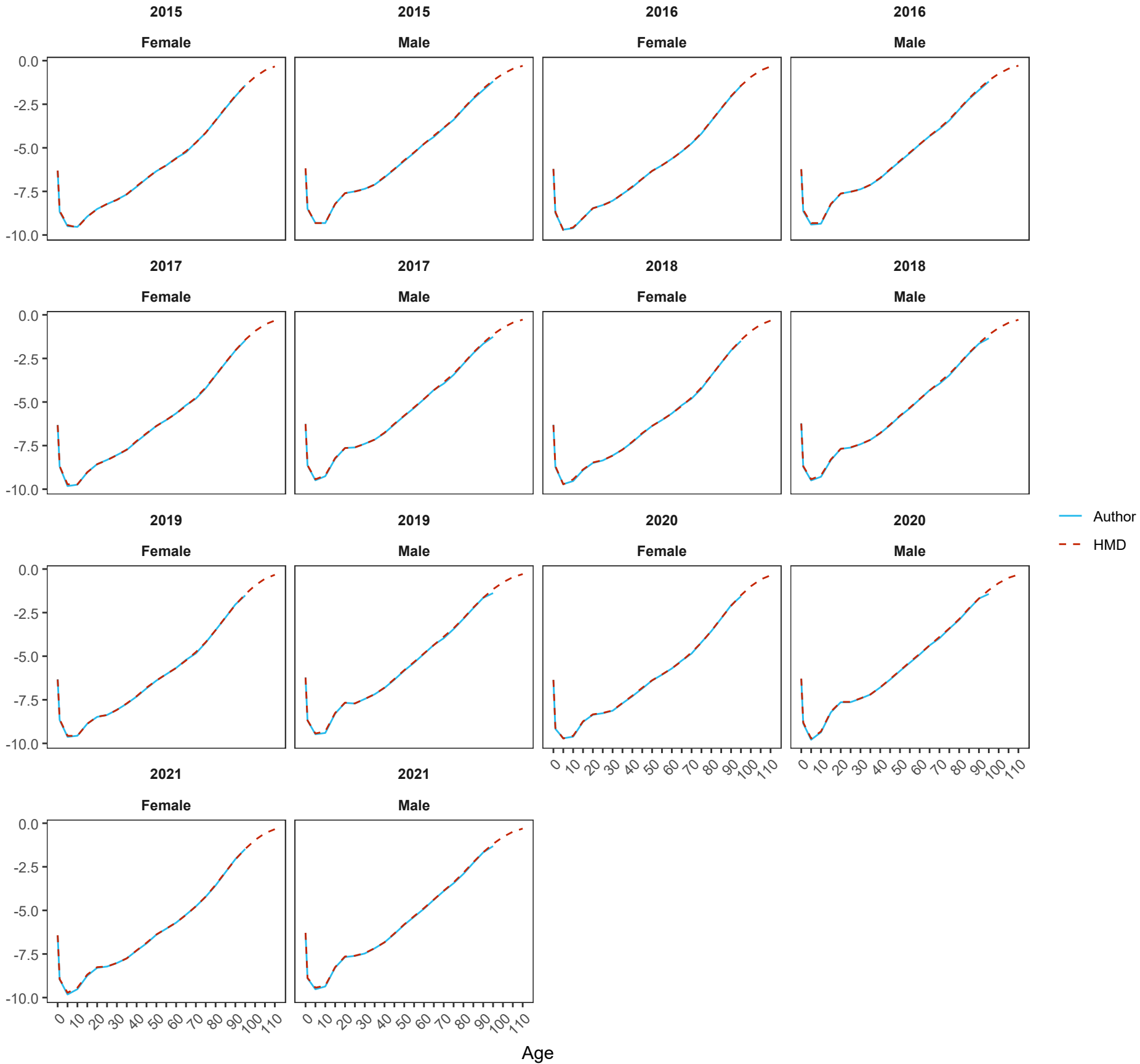


Figure S3I

Comparison of age-group-specific logged mortality rates (Latvia),
author data set (solid line) vs. HMD (dashed line)

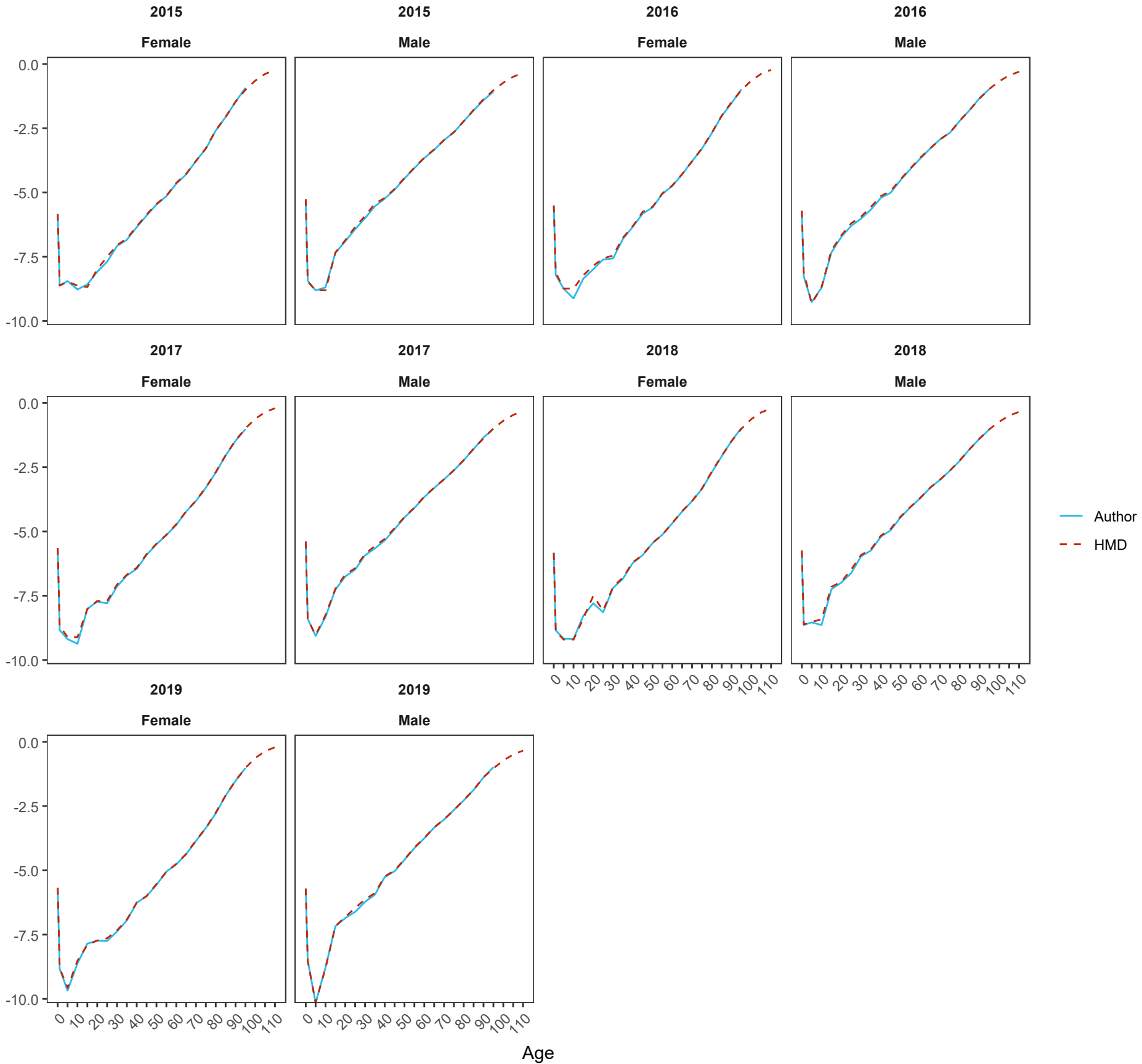


Figure S3m

Comparison of age-group-specific logged mortality rates (Lithuania),
author data set (solid line) vs. HMD (dashed line)

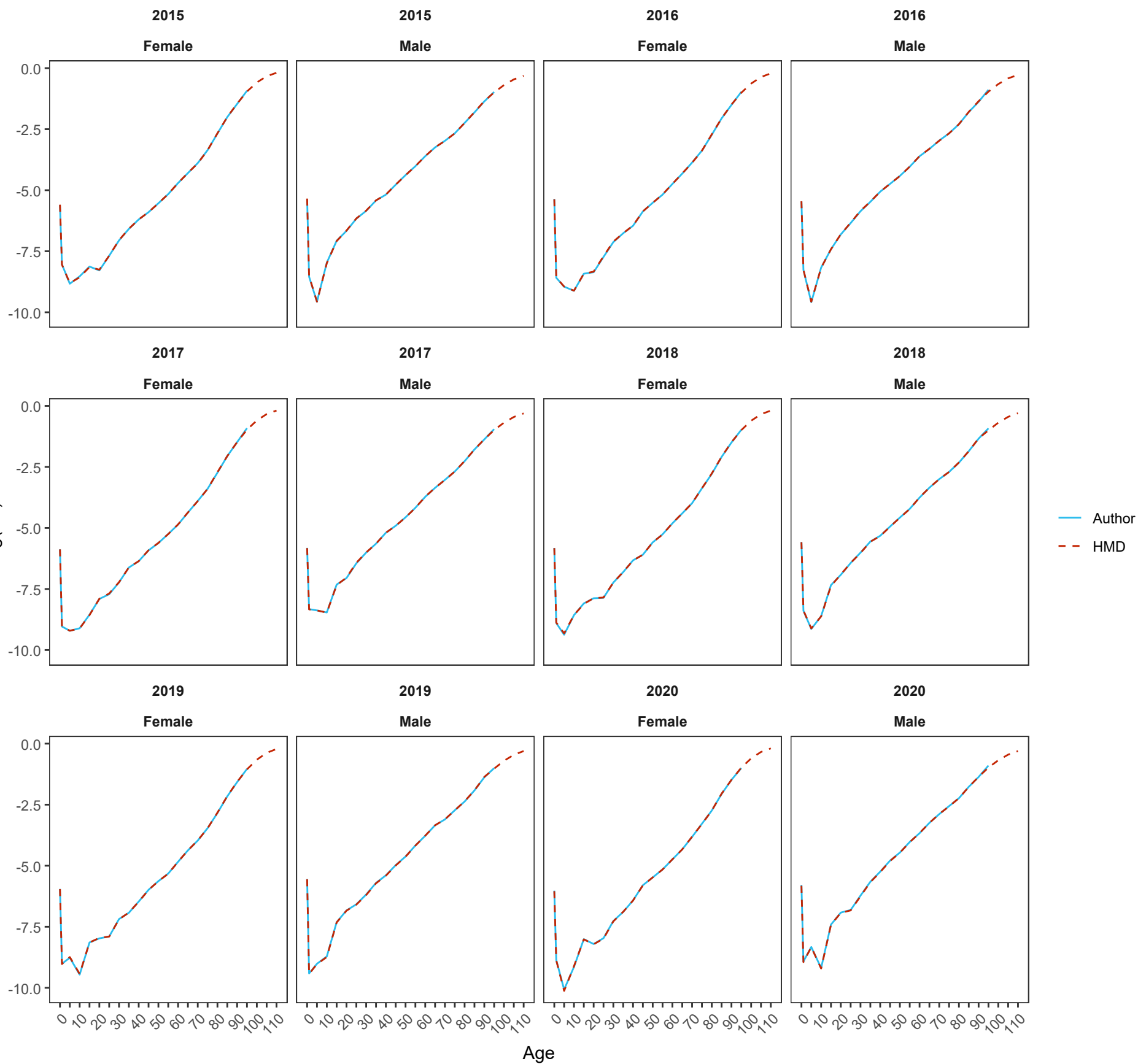


Figure S3n

Comparison of age-group-specific logged mortality rates (Netherlands),
author data set (solid line) vs. HMD (dashed line)

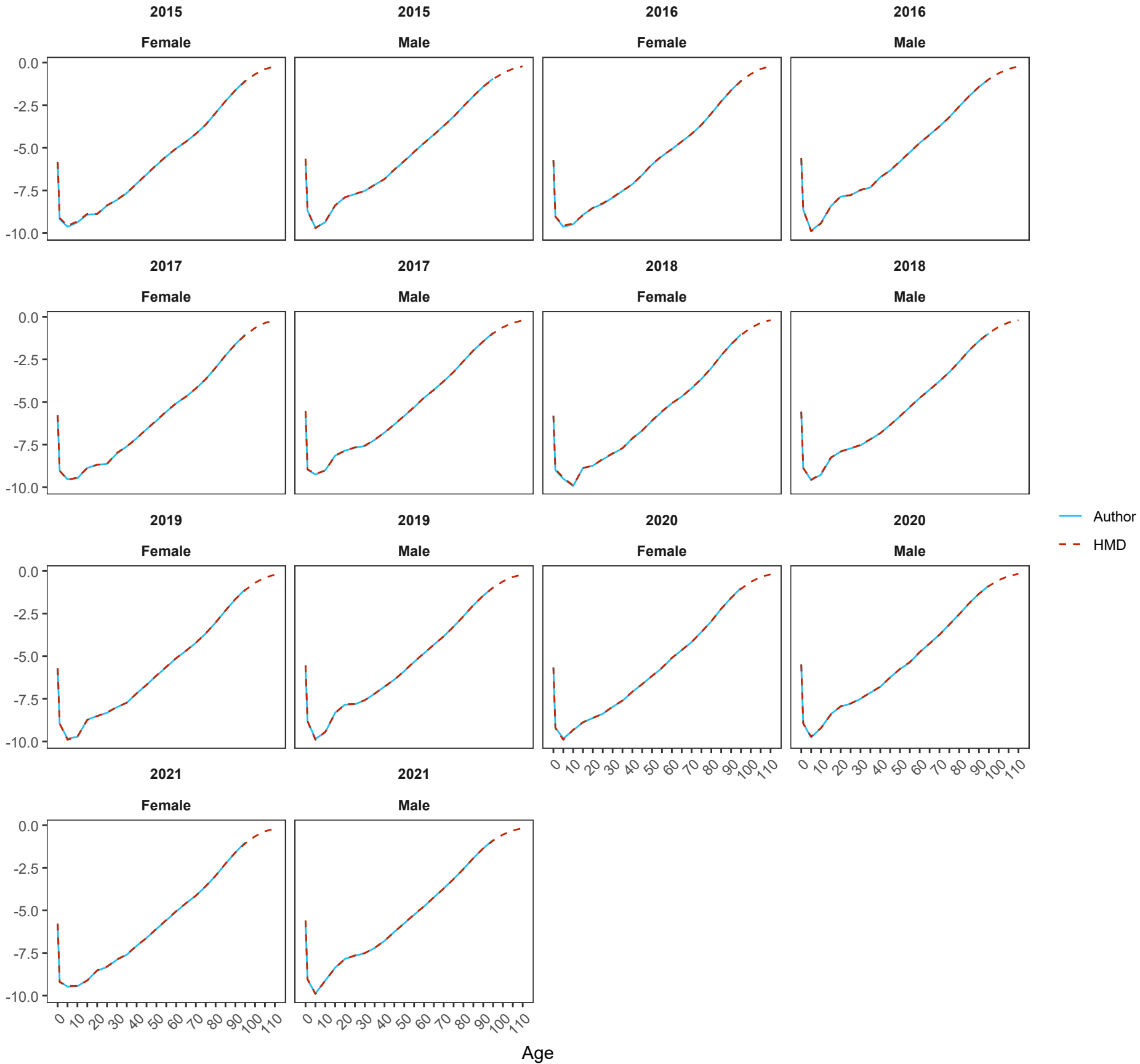


Figure S3o

Comparison of age-group-specific logged mortality rates (Northern Ireland),
author data set (solid line) vs. HMD (dashed line)

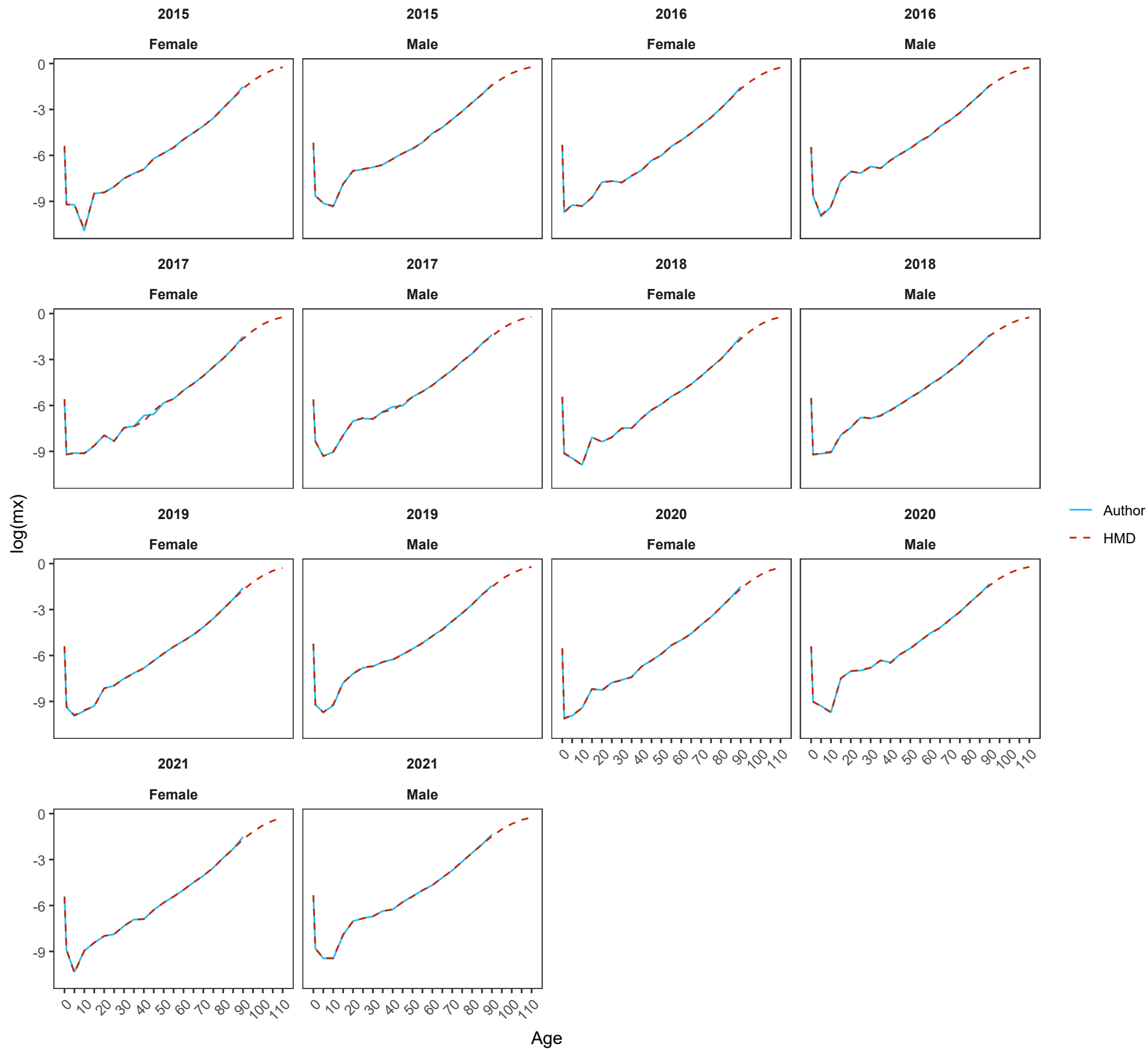


Figure S3p

Comparison of age-group-specific logged mortality rates (Poland),
author data set (solid line) vs. HMD (dashed line)

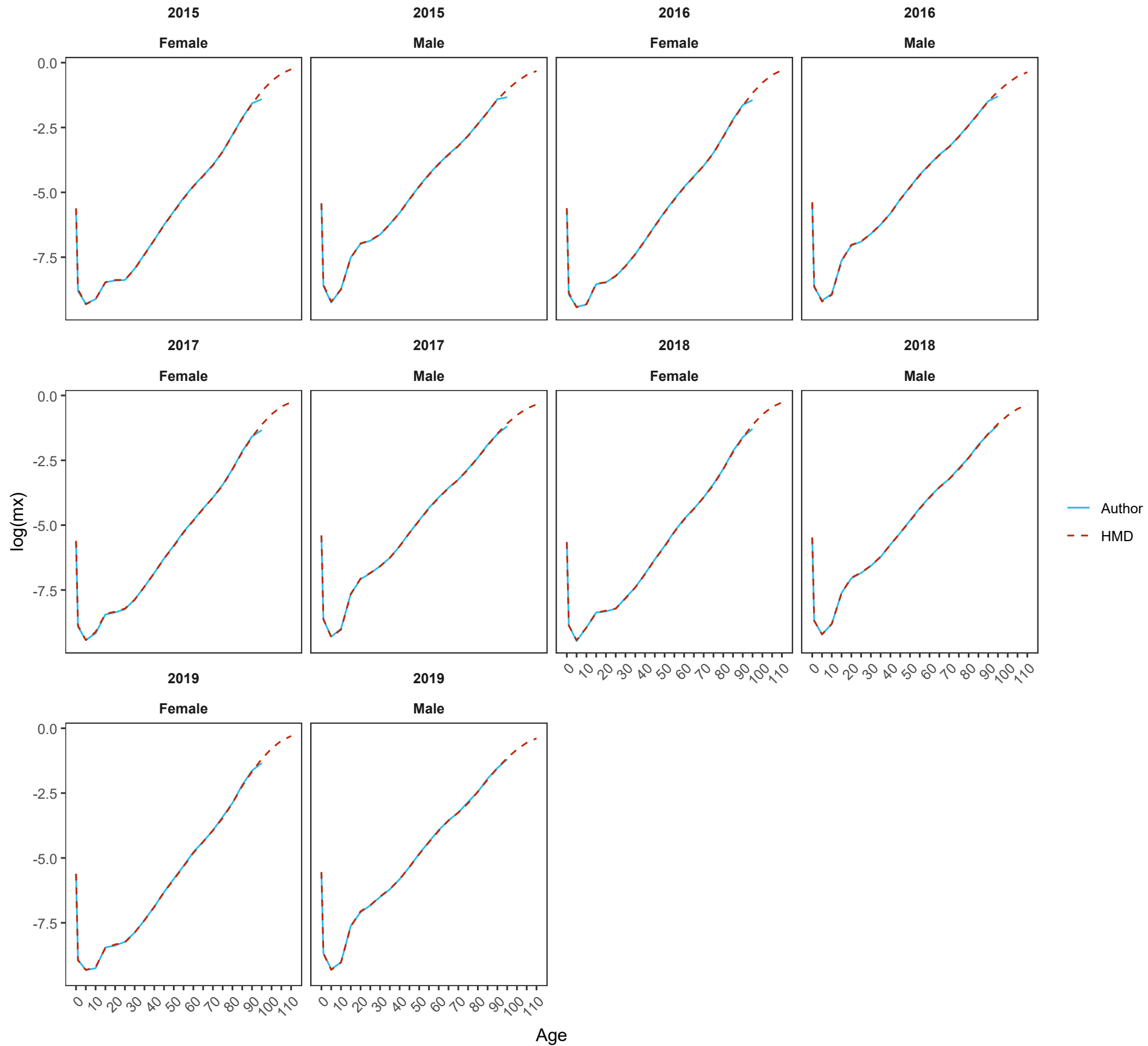


Figure S3q

Comparison of age-group-specific logged mortality rates (Scotland),
author data set (solid line) vs. HMD (dashed line)

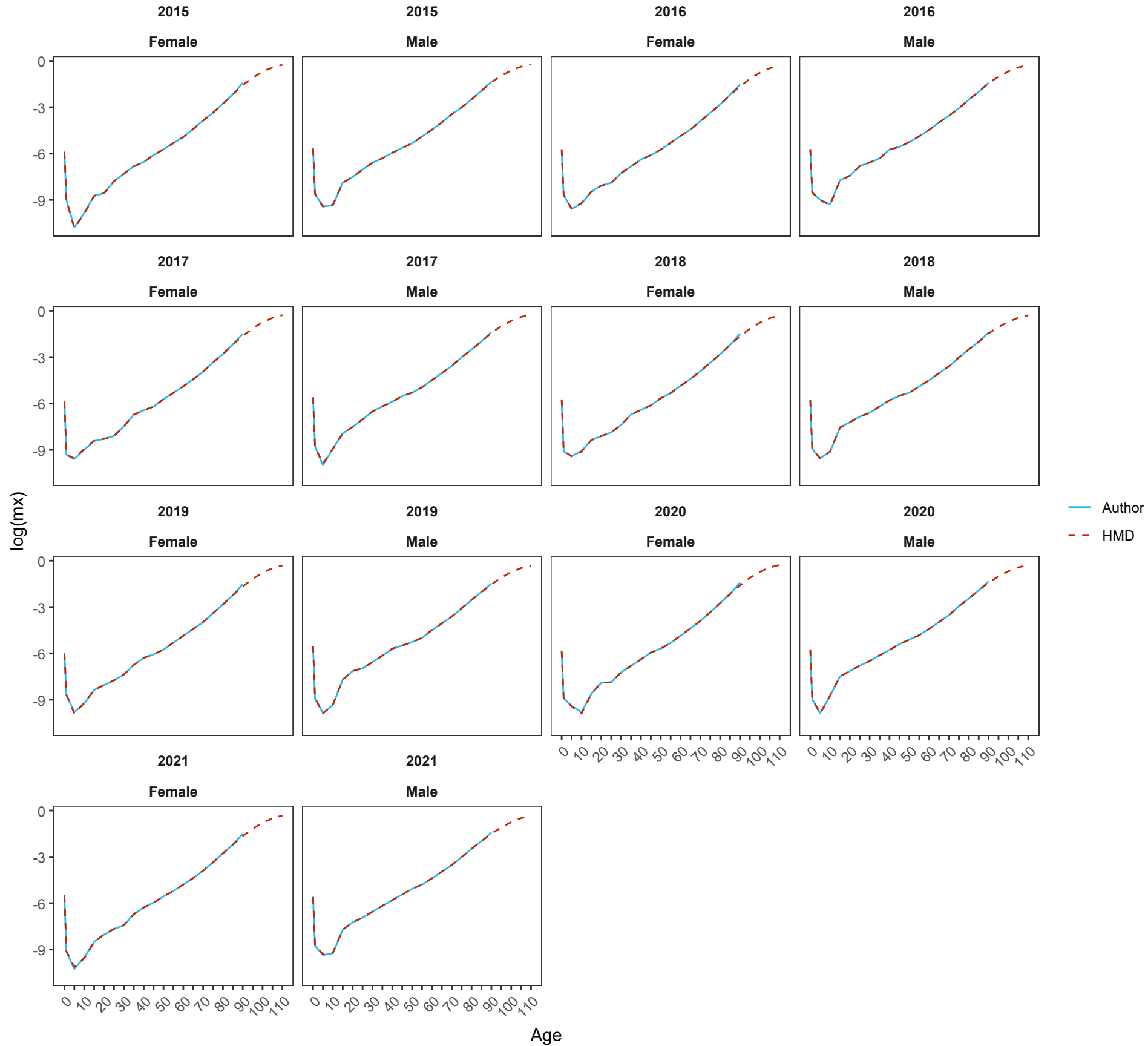


Figure S3r

Comparison of age-group-specific logged mortality rates (South Korea),
author data set (solid line) vs. HMD (dashed line)

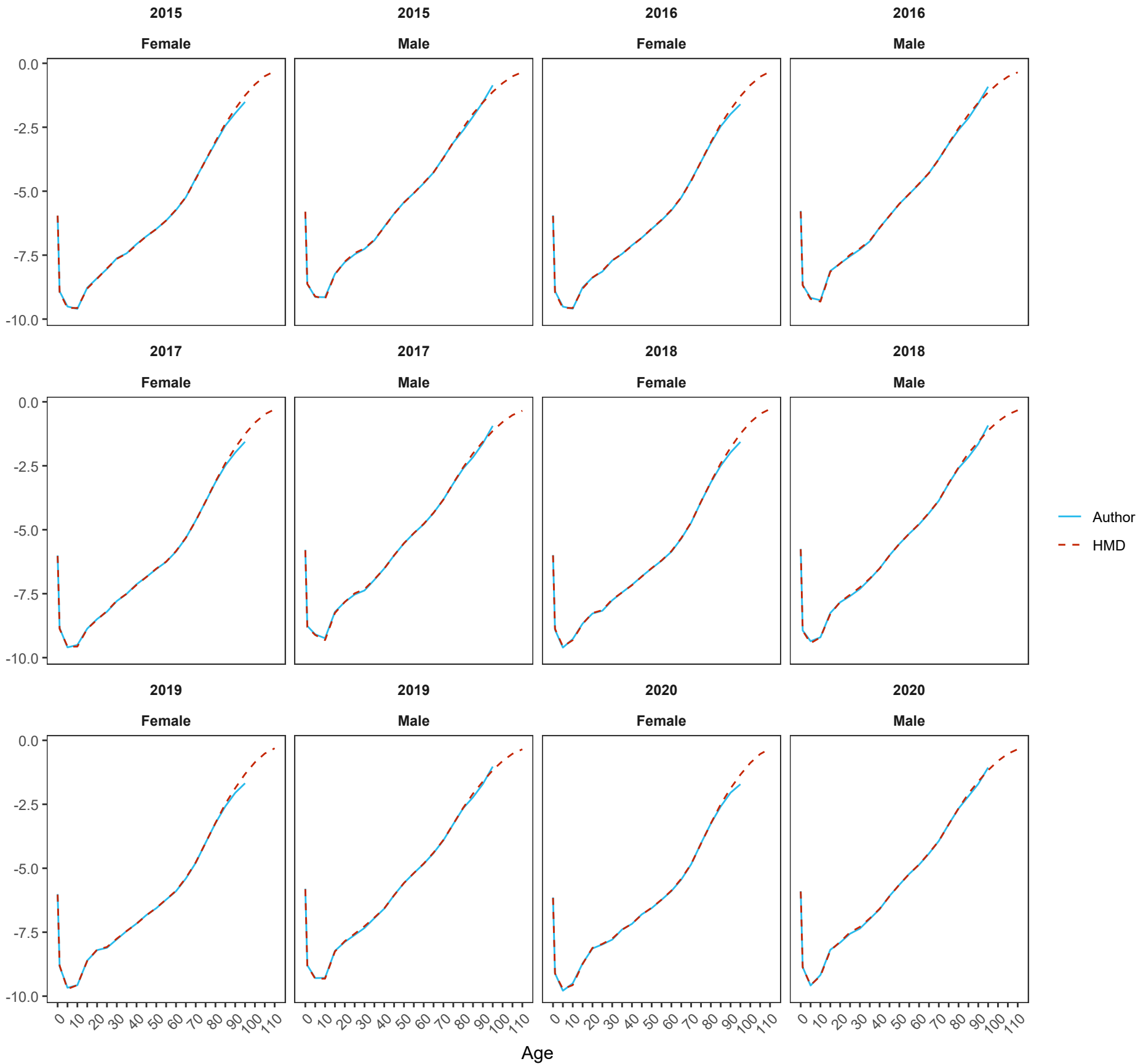


Figure S3s

Comparison of age-group-specific logged mortality rates (Spain),
author data set (solid line) vs. HMD (dashed line)

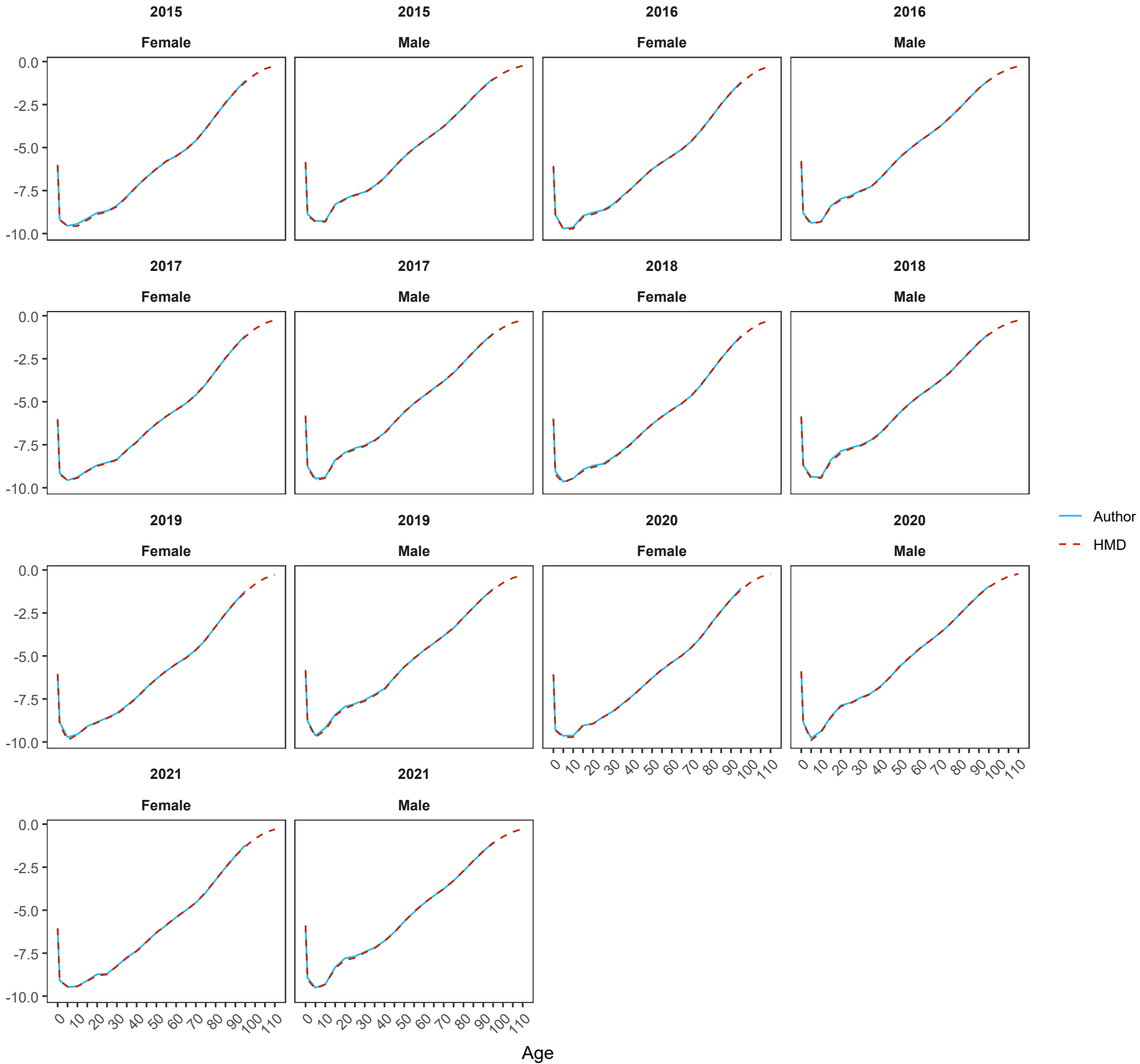


Figure S3t

Comparison of age-group-specific logged mortality rates (Sweden),
author data set (solid line) vs. HMD (dashed line)

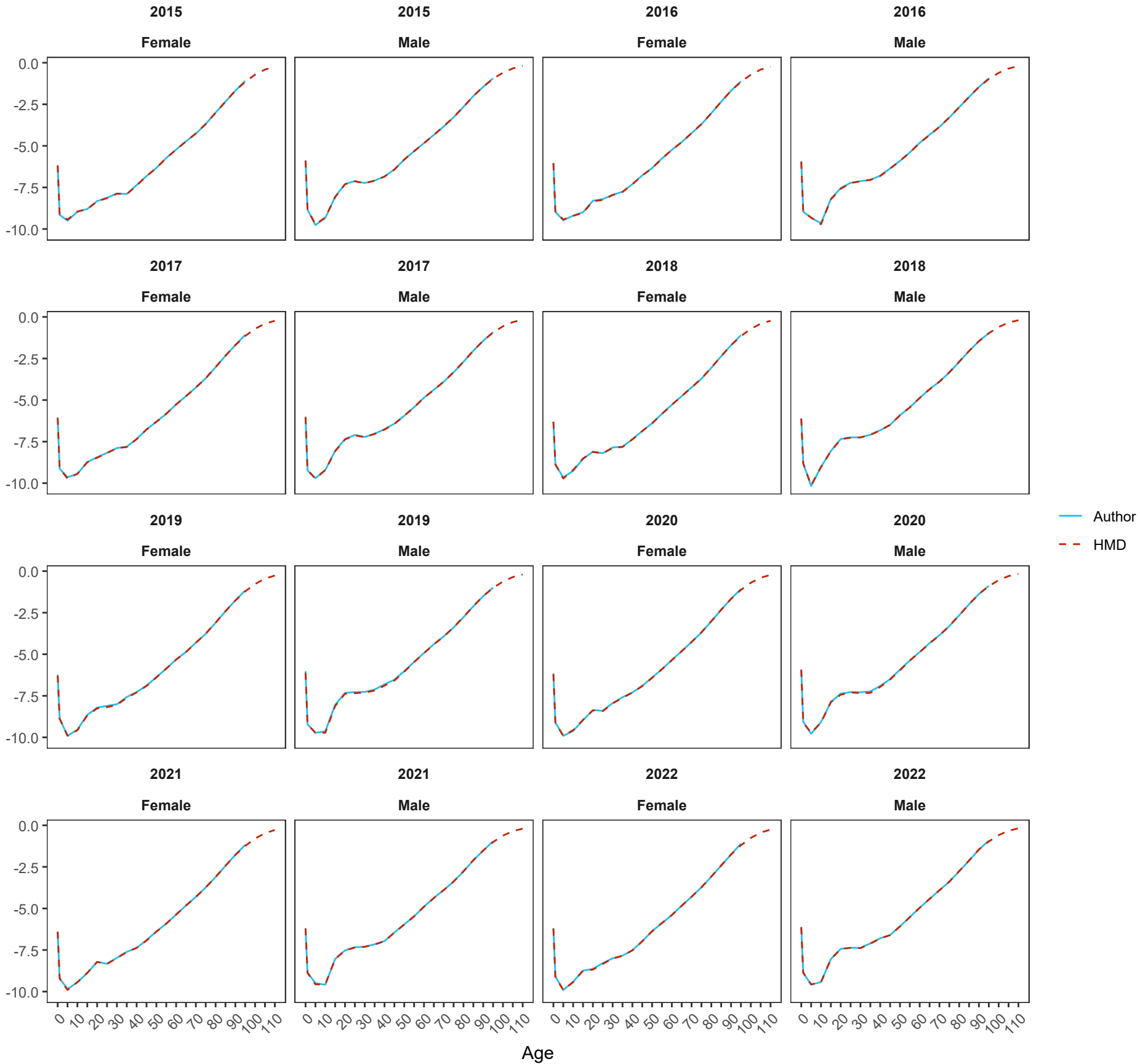


Figure S3u

Comparison of age-group-specific logged mortality rates (Switzerland), author data set (solid line) vs. HMD (dashed line)

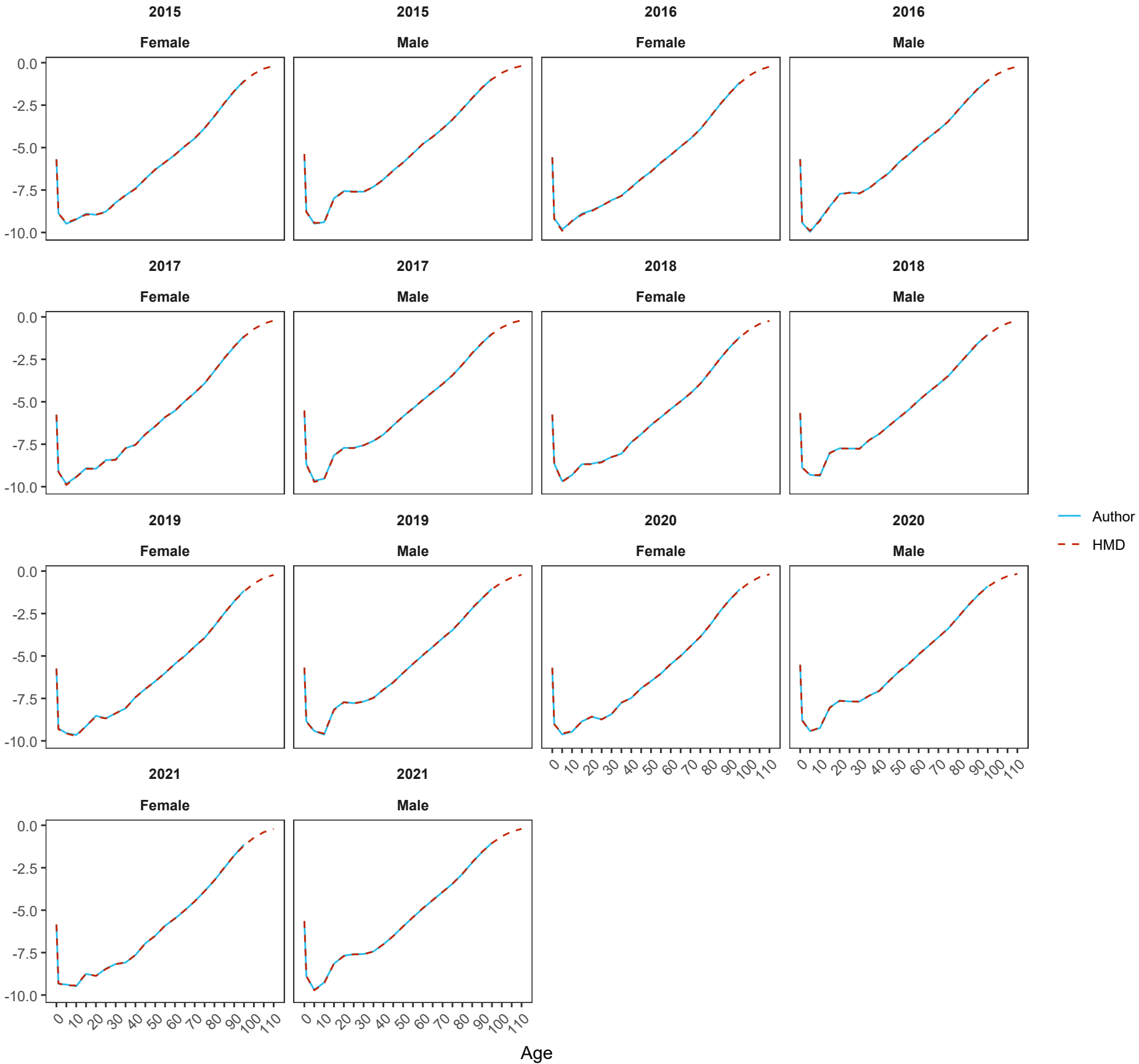


Figure S3v

Comparison of age-group-specific logged mortality rates (USA),
author data set (solid line) vs. HMD (dashed line)

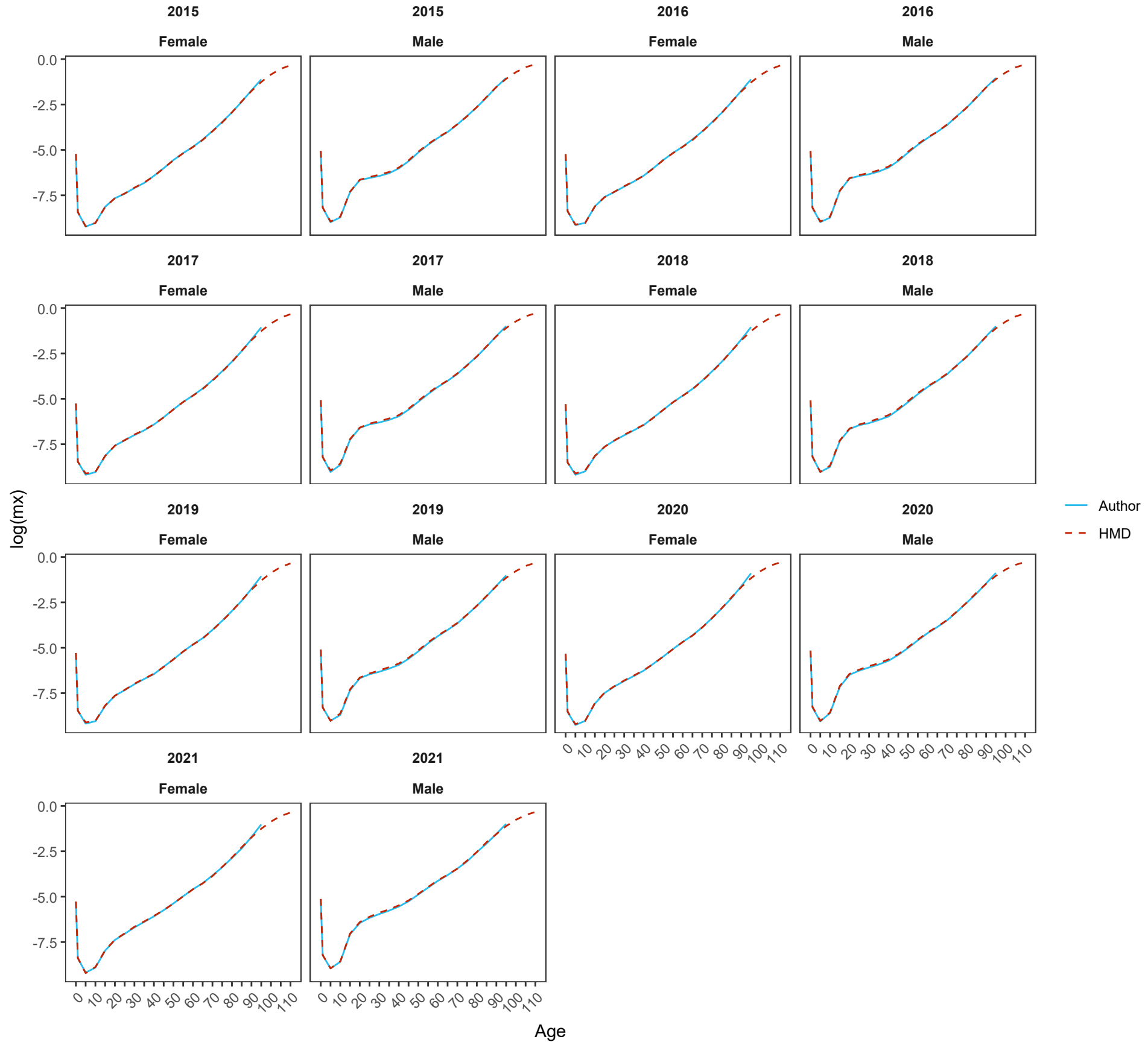
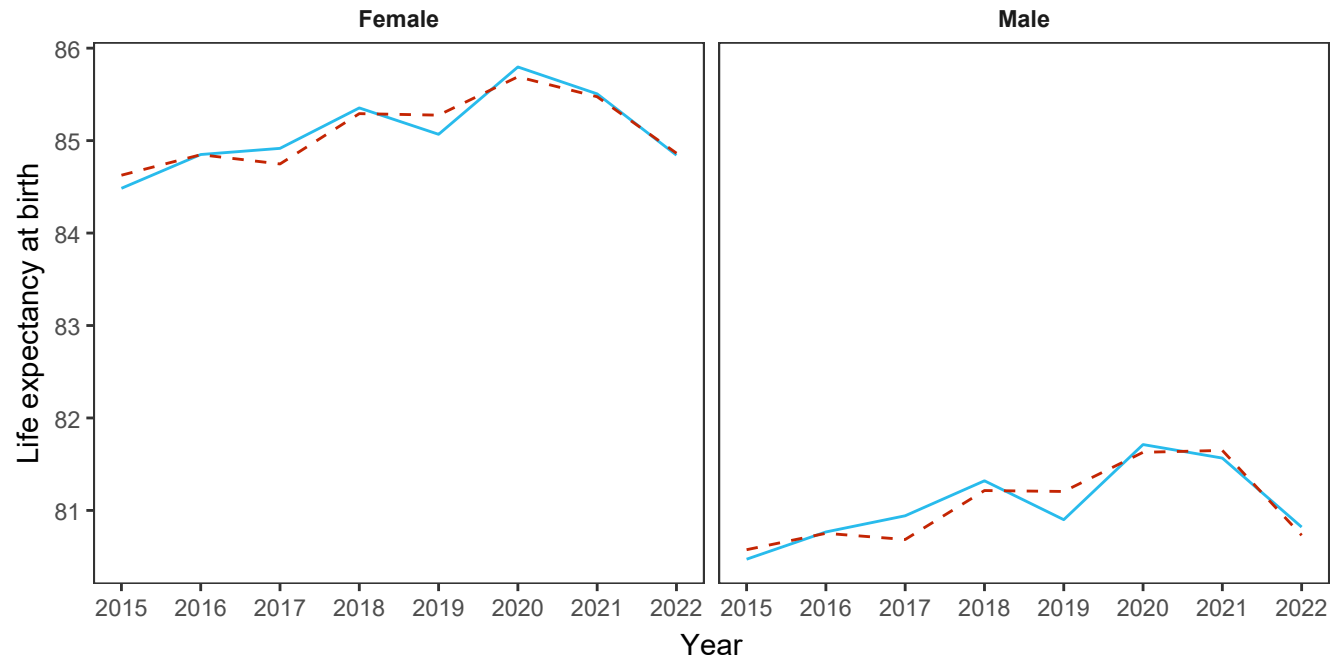


Figure S4a

Comparison of life expectancy at birth (Australia),
author data set (solid line) vs. UNWPP (dashed line)



— Author - - UNWPP

Figure S4b

Comparison of life expectancy at birth (Austria),
author data set (solid line) vs. UNWPP (dashed line)

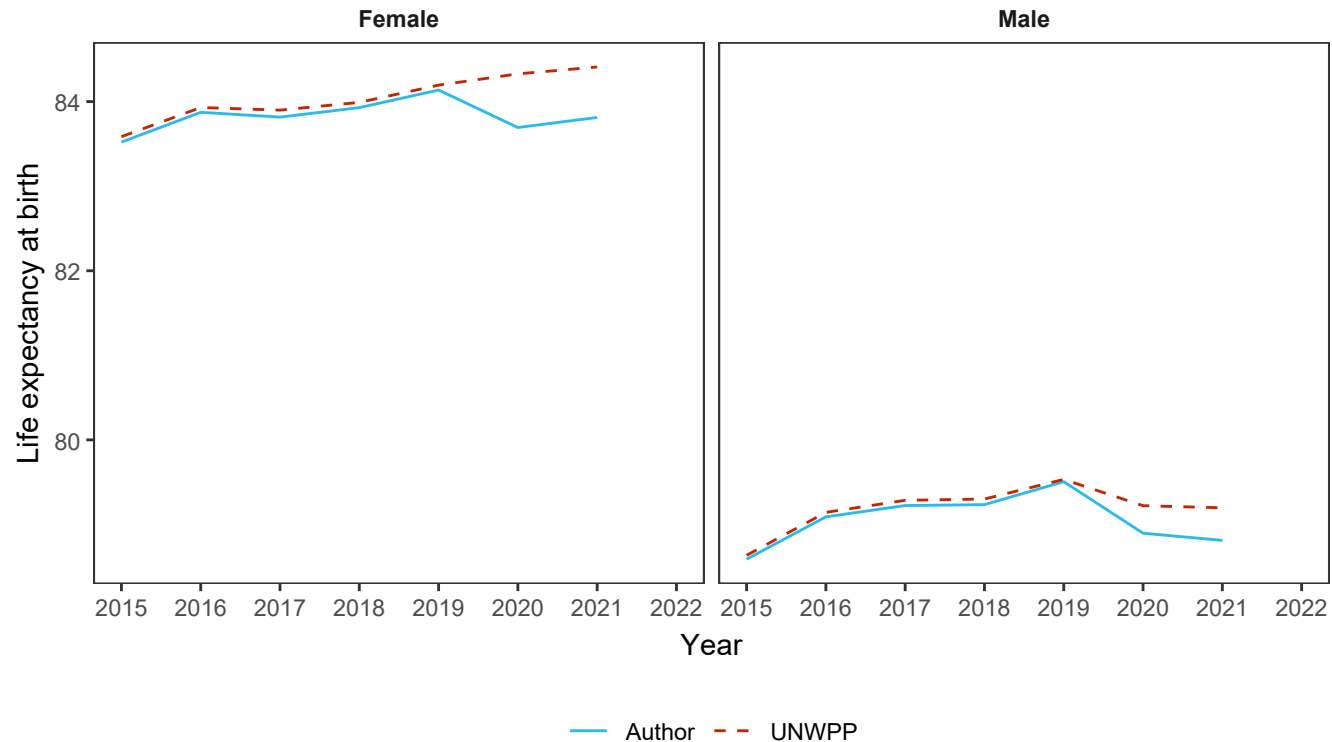


Figure S4c

Comparison of life expectancy at birth (Brazil),
author data set (solid line) vs. UNWPP (dashed line)

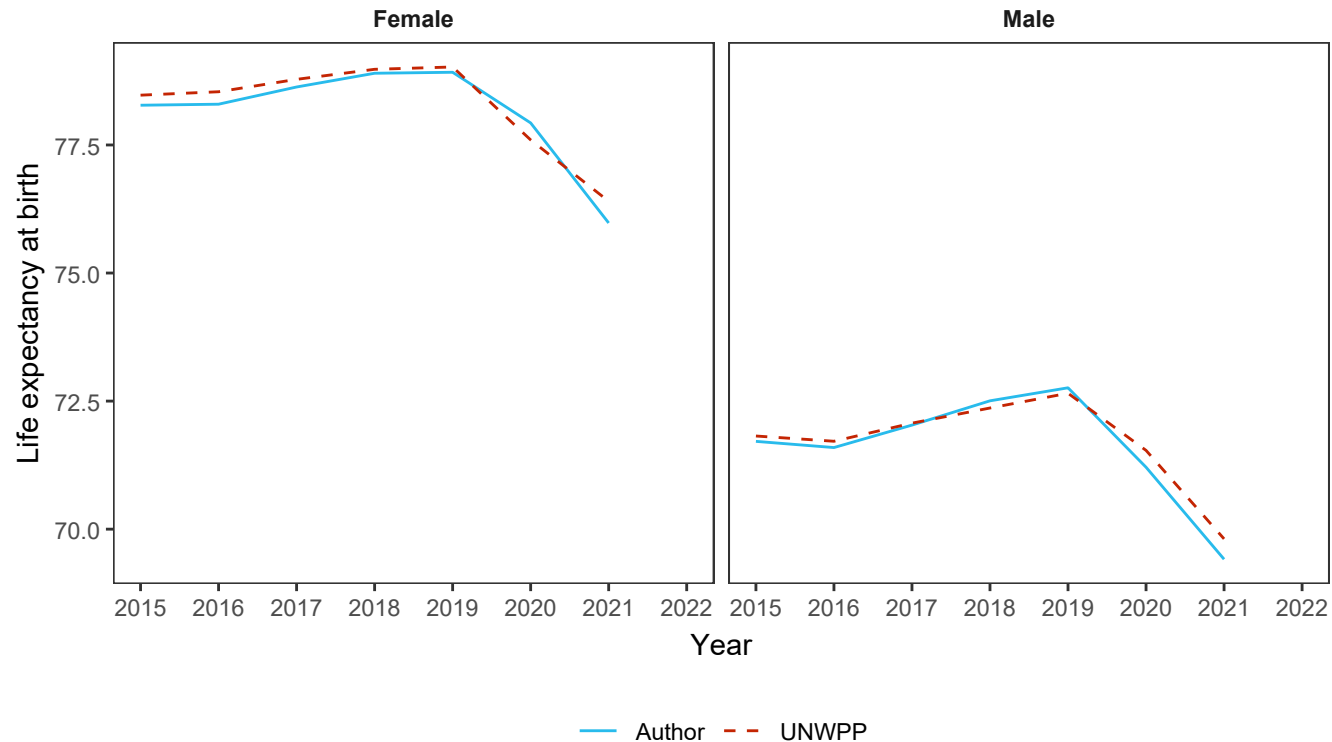


Figure S4d

Comparison of life expectancy at birth (Bulgaria),
author data set (solid line) vs. UNWPP (dashed line)

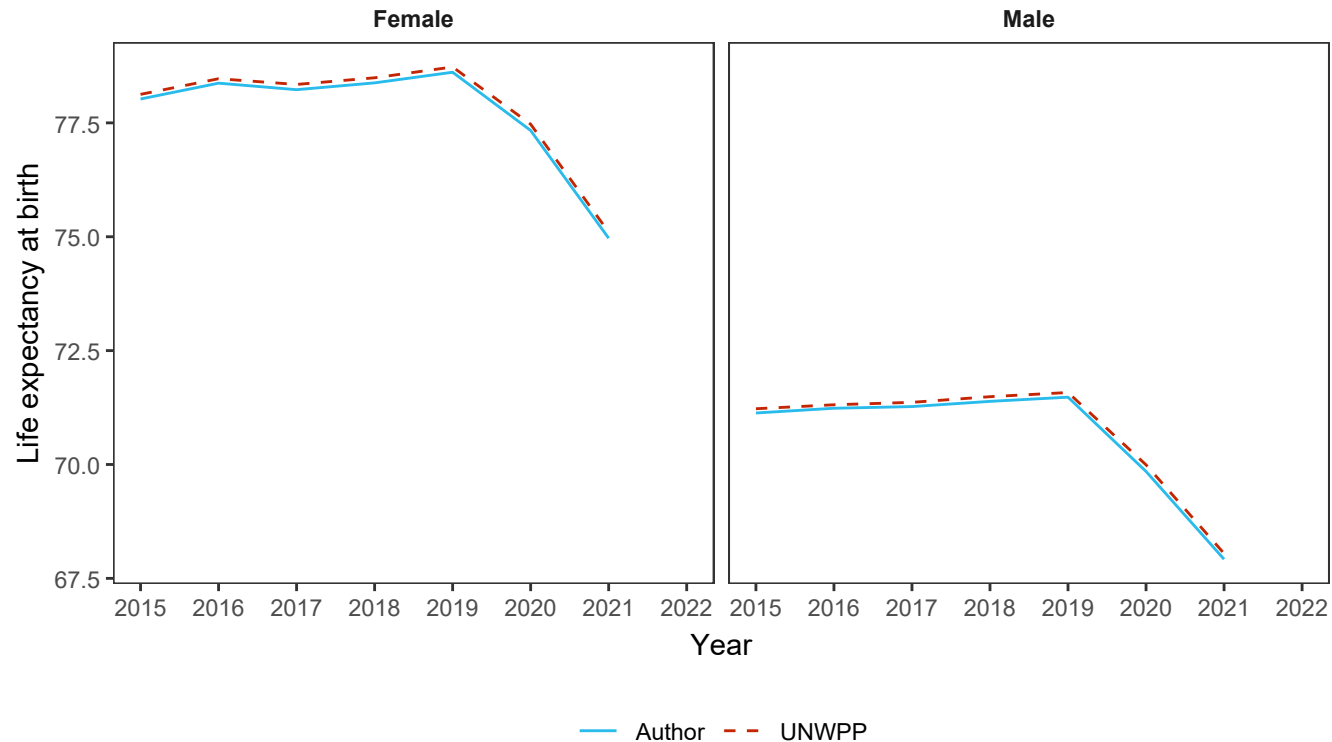


Figure S4e

Comparison of life expectancy at birth (Canada),
author data set (solid line) vs. UNWPP (dashed line)



Figure S4f

Comparison of life expectancy at birth (Chile),
author data set (solid line) vs. UNWPP (dashed line)

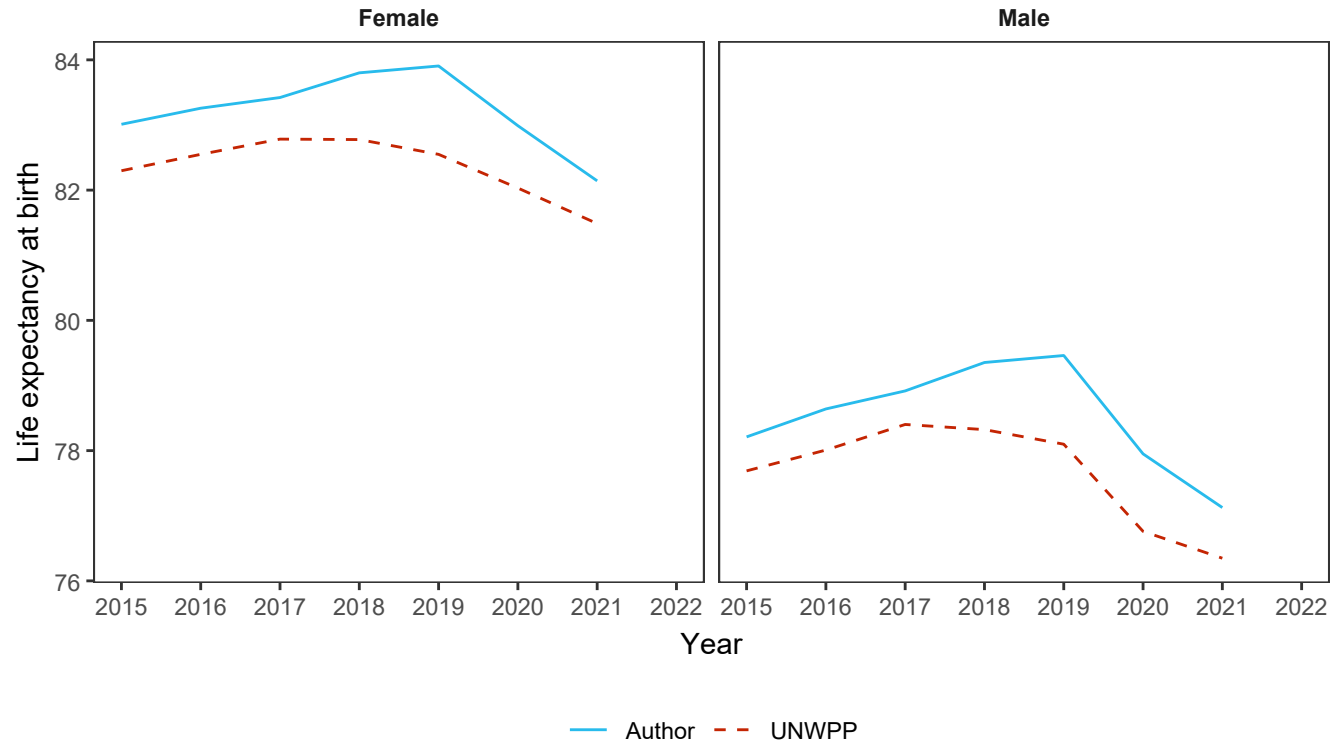


Figure S4g

Comparison of life expectancy at birth (Croatia),
author data set (solid line) vs. UNWPP (dashed line)

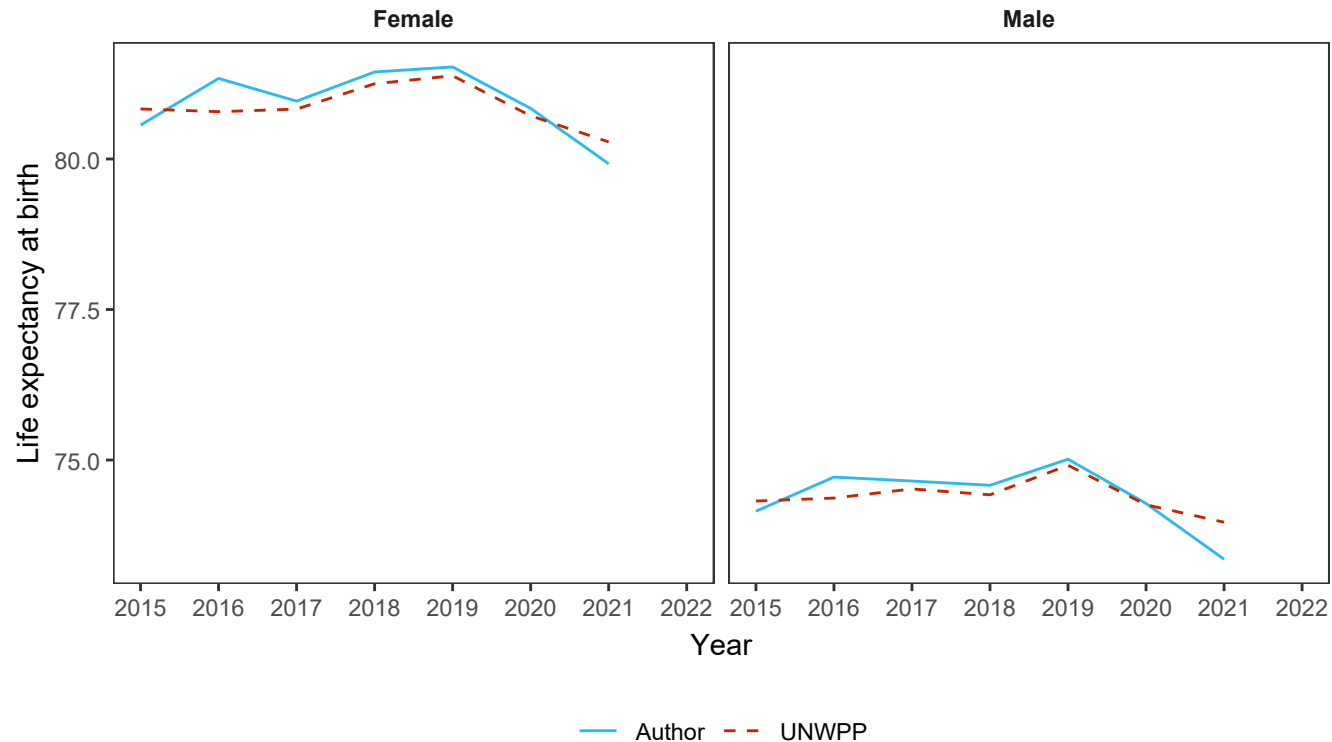


Figure S4h

Comparison of life expectancy at birth (Czechia),
author data set (solid line) vs. UNWPP (dashed line)

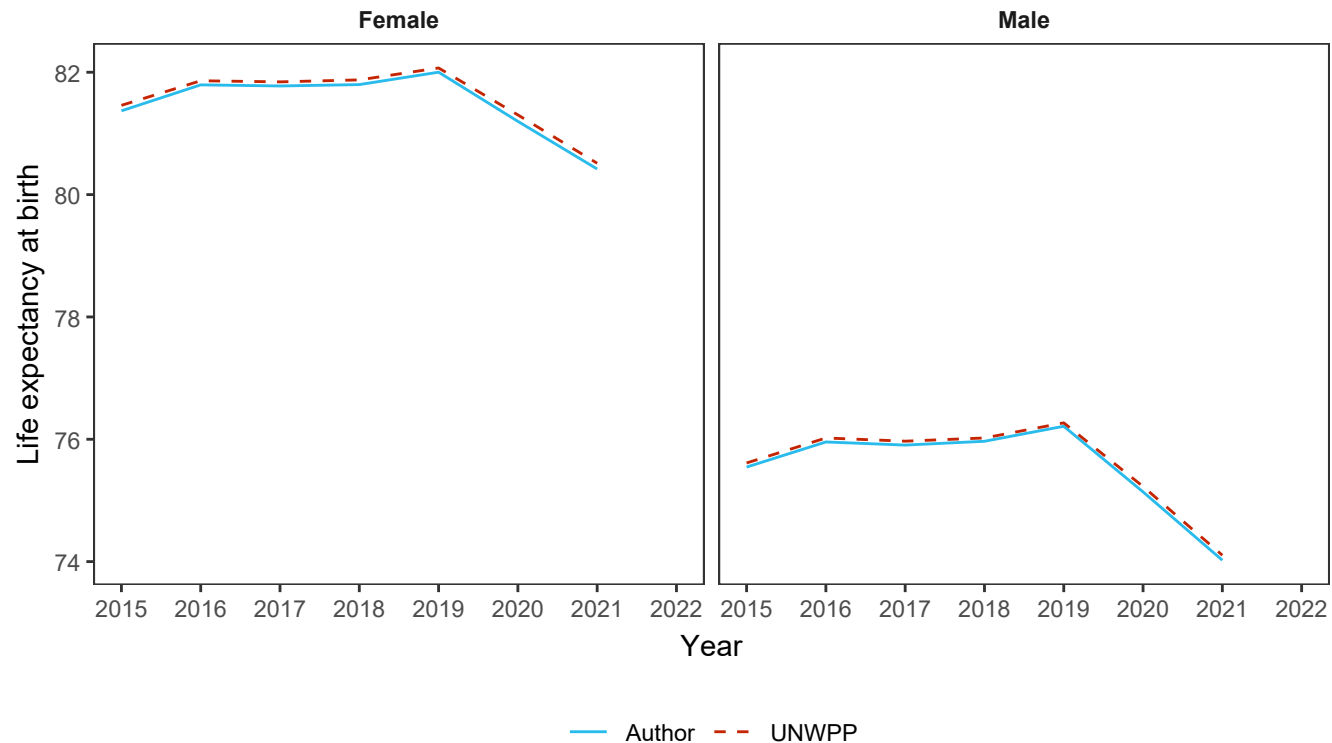
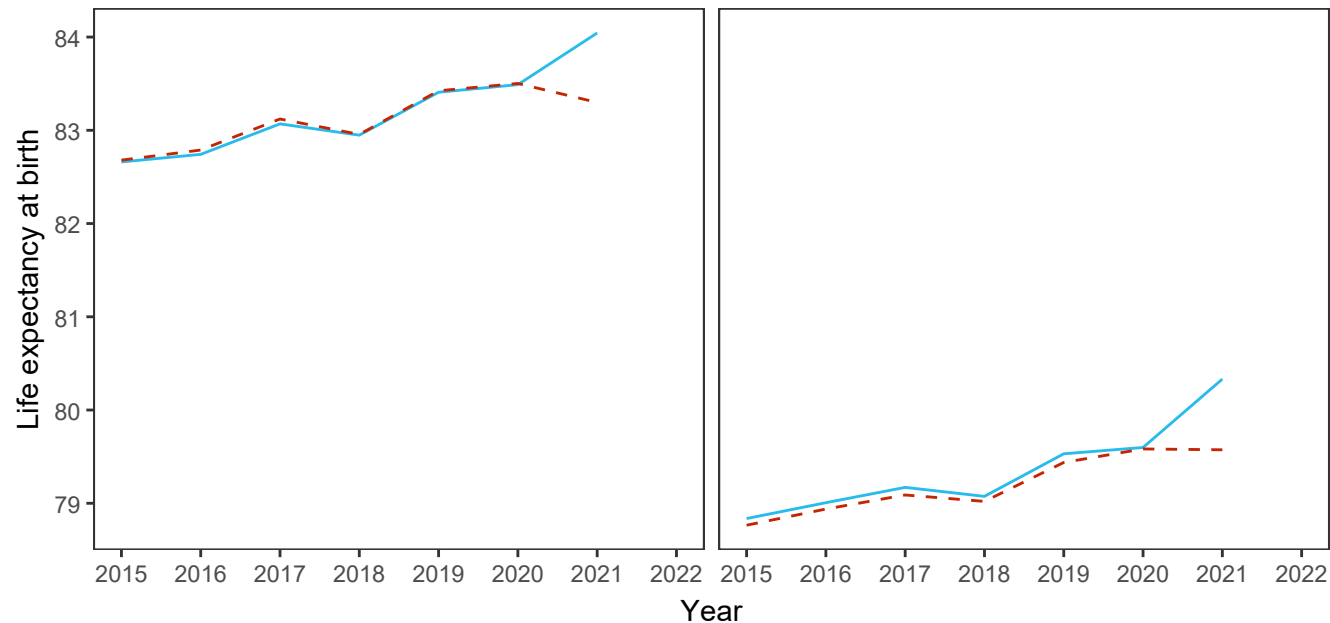


Figure S4i

Comparison of life expectancy at birth (Denmark), author data set (solid line) vs. UNWPP (dashed line)

Female

Male



— Author - - UNWPP

Figure S4j

Comparison of life expectancy at birth (Hungary),
author data set (solid line) vs. UNWPP (dashed line)

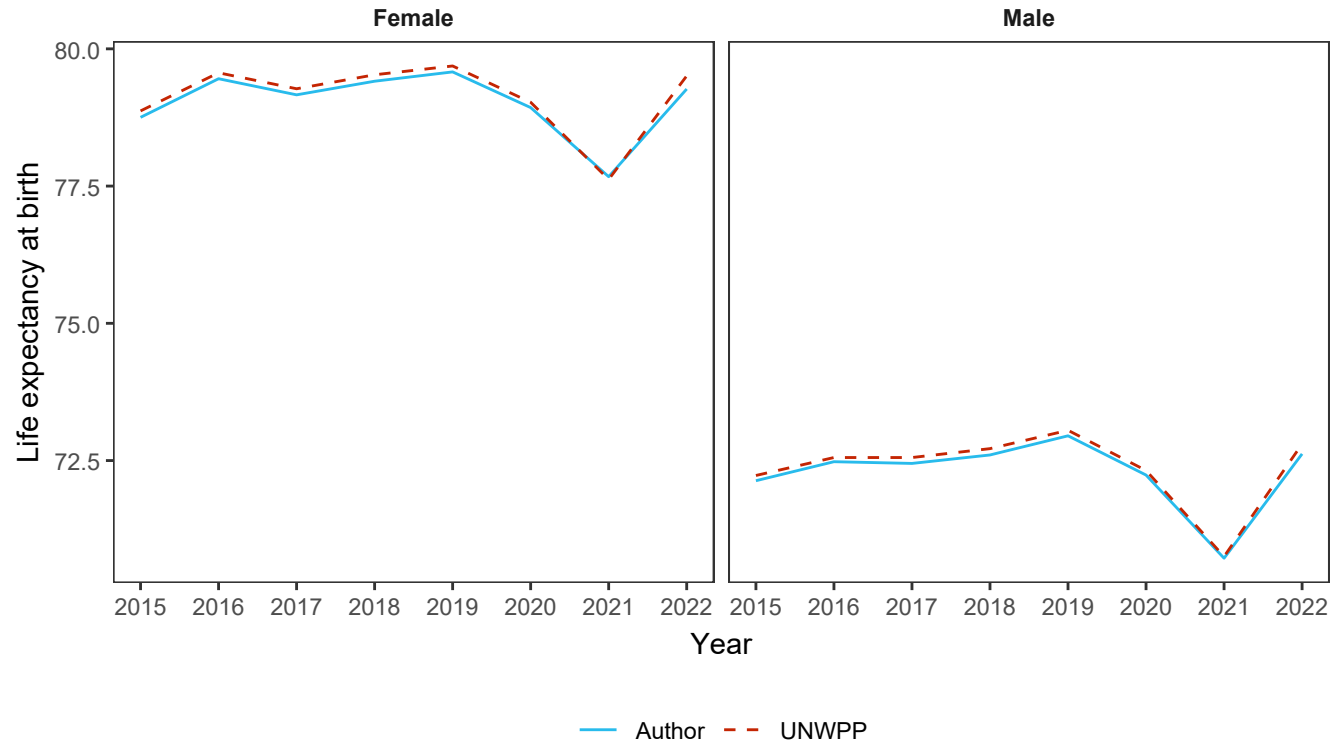
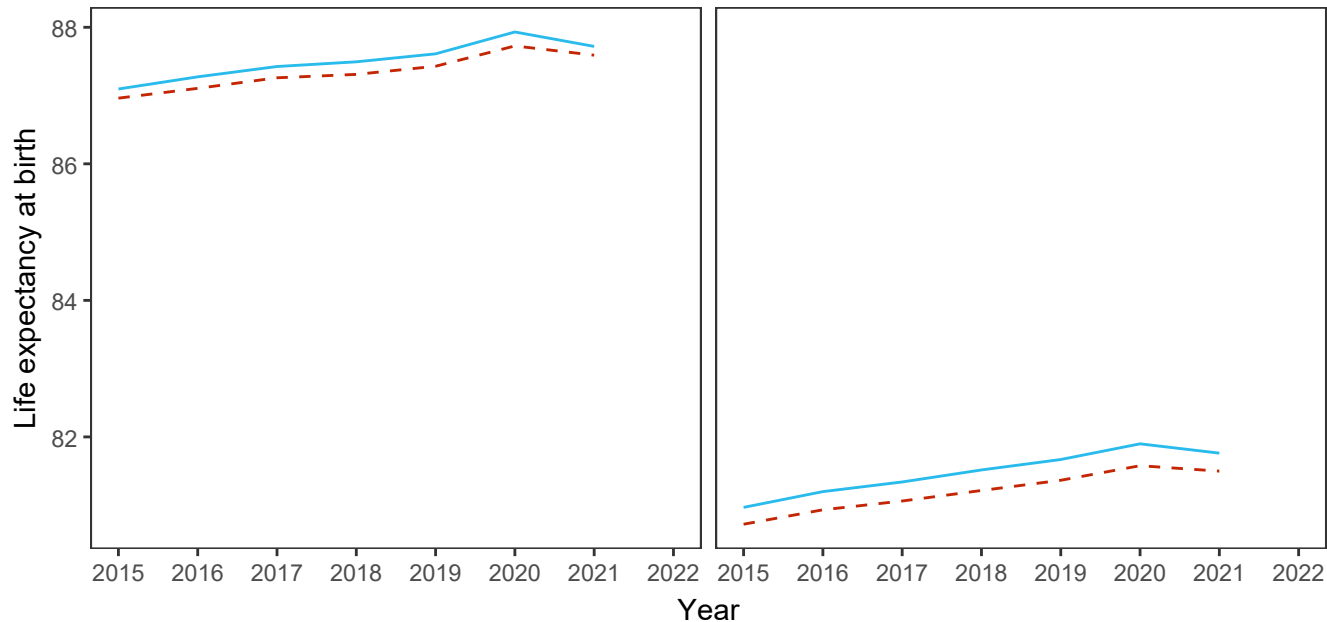


Figure S4k

Comparison of life expectancy at birth (Japan),
author data set (solid line) vs. UNWPP (dashed line)

Female

Male



— Author - - UNWPP

Figure S4I

Comparison of life expectancy at birth (Latvia),
author data set (solid line) vs. UNWPP (dashed line)

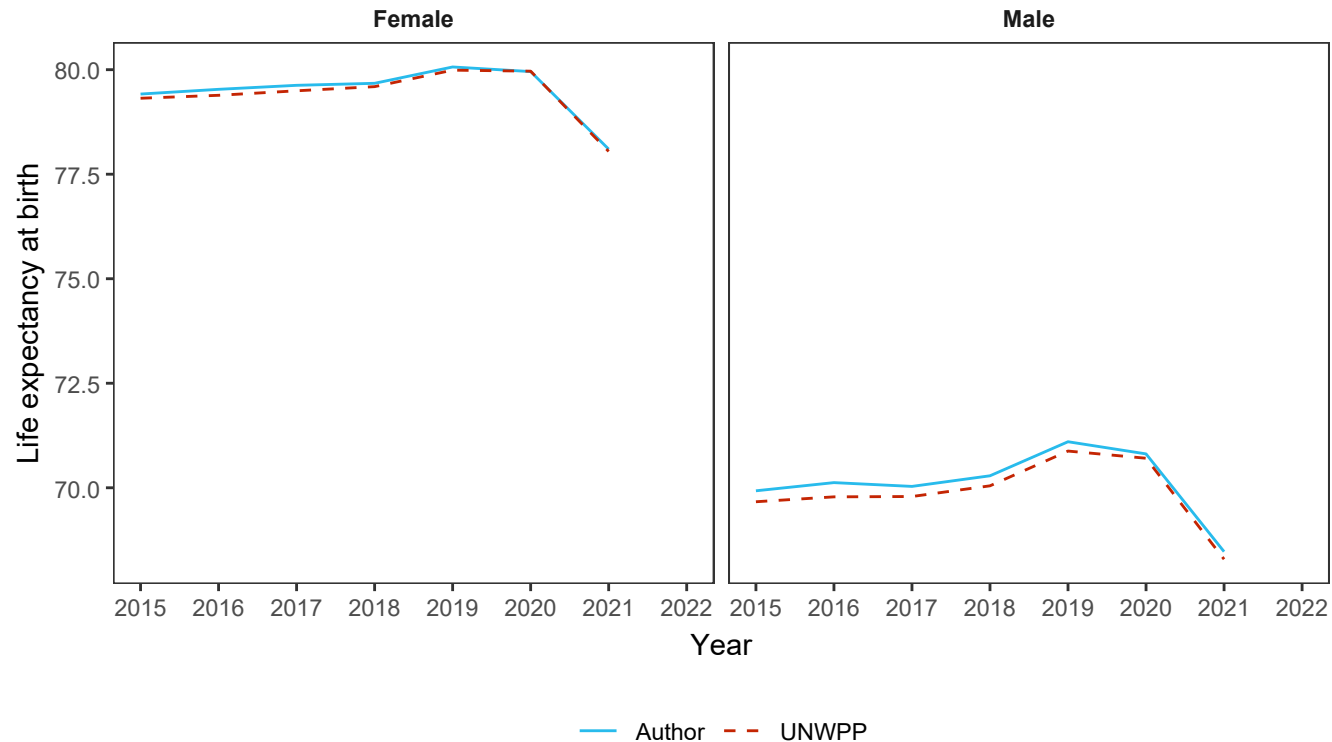


Figure S4m

Comparison of life expectancy at birth (Lithuania),
author data set (solid line) vs. UNWPP (dashed line)

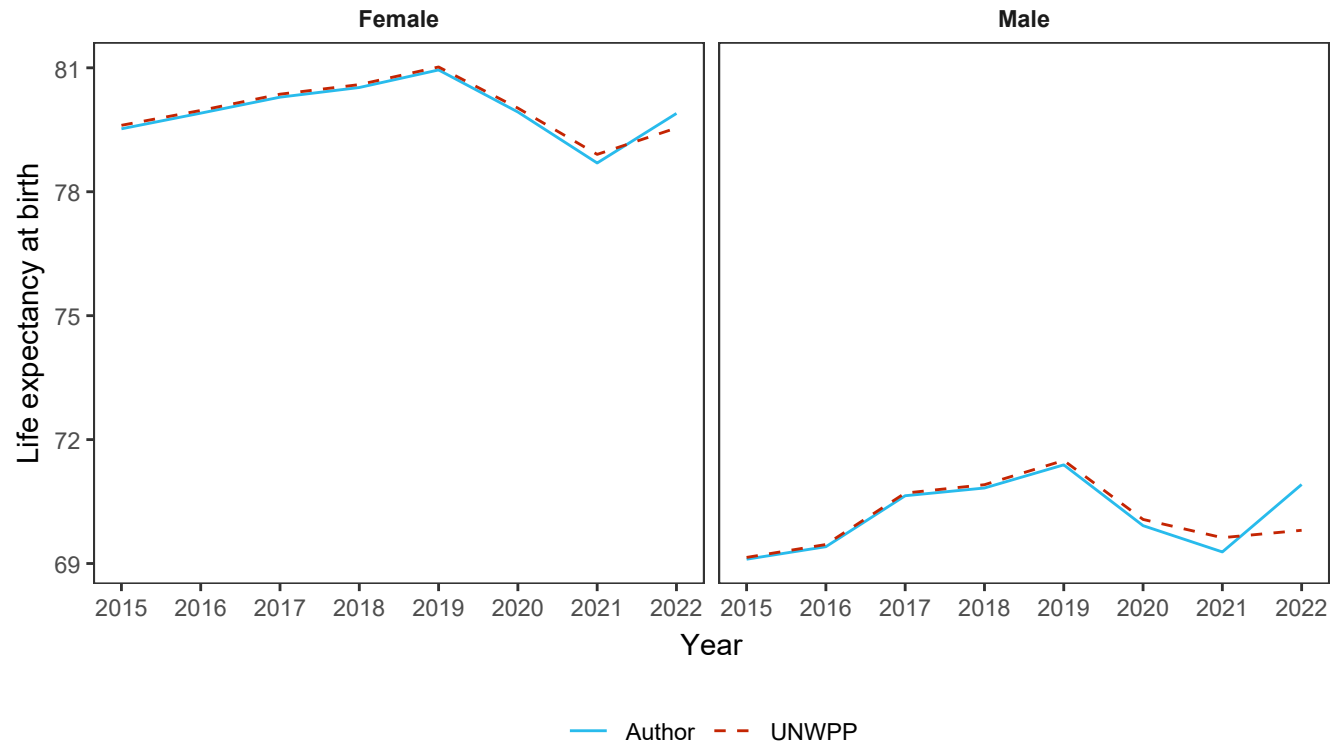


Figure S4n

Comparison of life expectancy at birth (Netherlands), author data set (solid line) vs. UNWPP (dashed line)

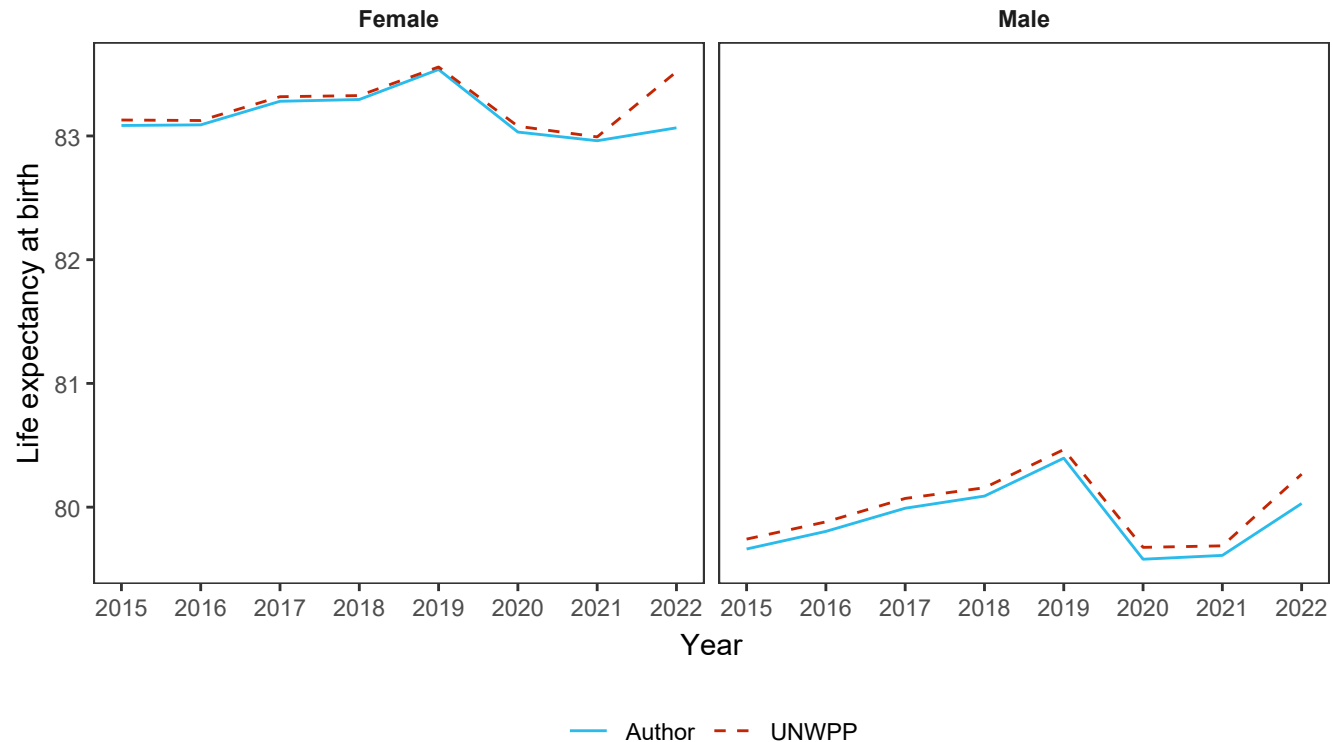


Figure S4o

Comparison of life expectancy at birth (Poland),
author data set (solid line) vs. UNWPP (dashed line)

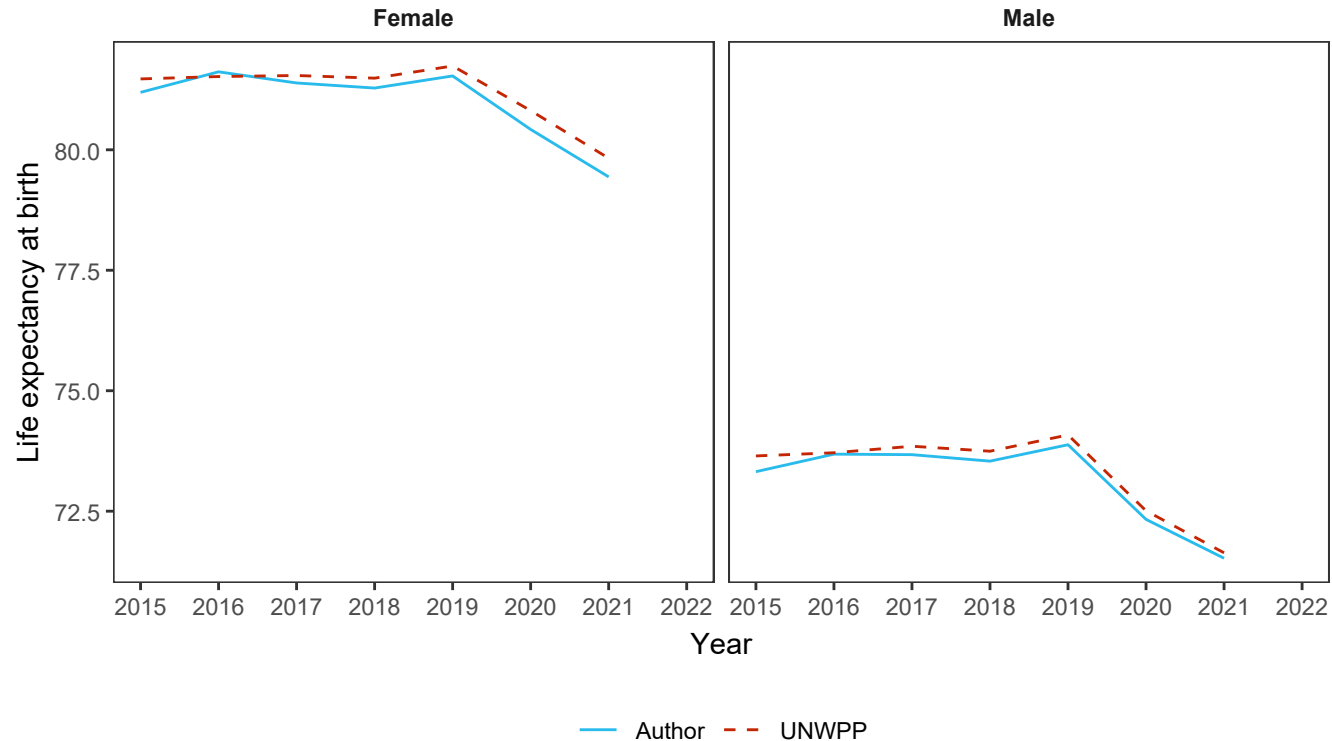


Figure S4p

Comparison of life expectancy at birth (Russia),
author data set (solid line) vs. UNWPP (dashed line)

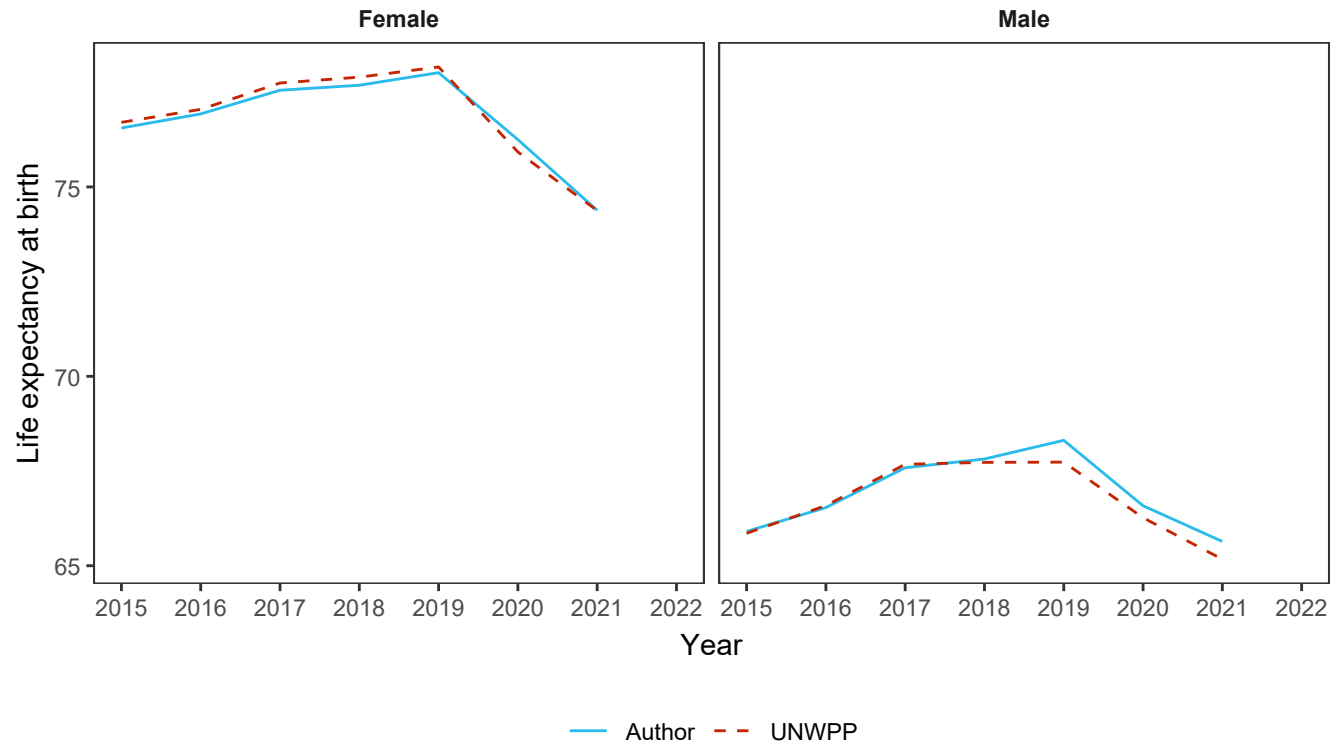
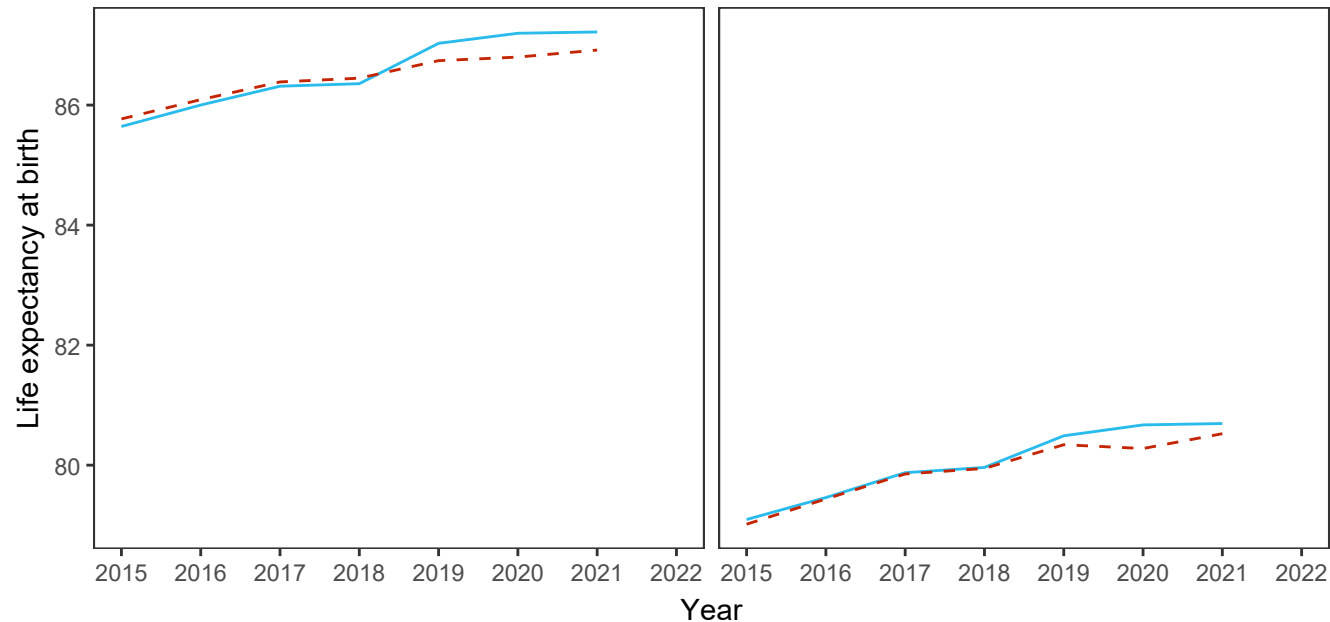


Figure S4q

Comparison of life expectancy at birth (South Korea),
author data set (solid line) vs. UNWPP (dashed line)

Female

Male



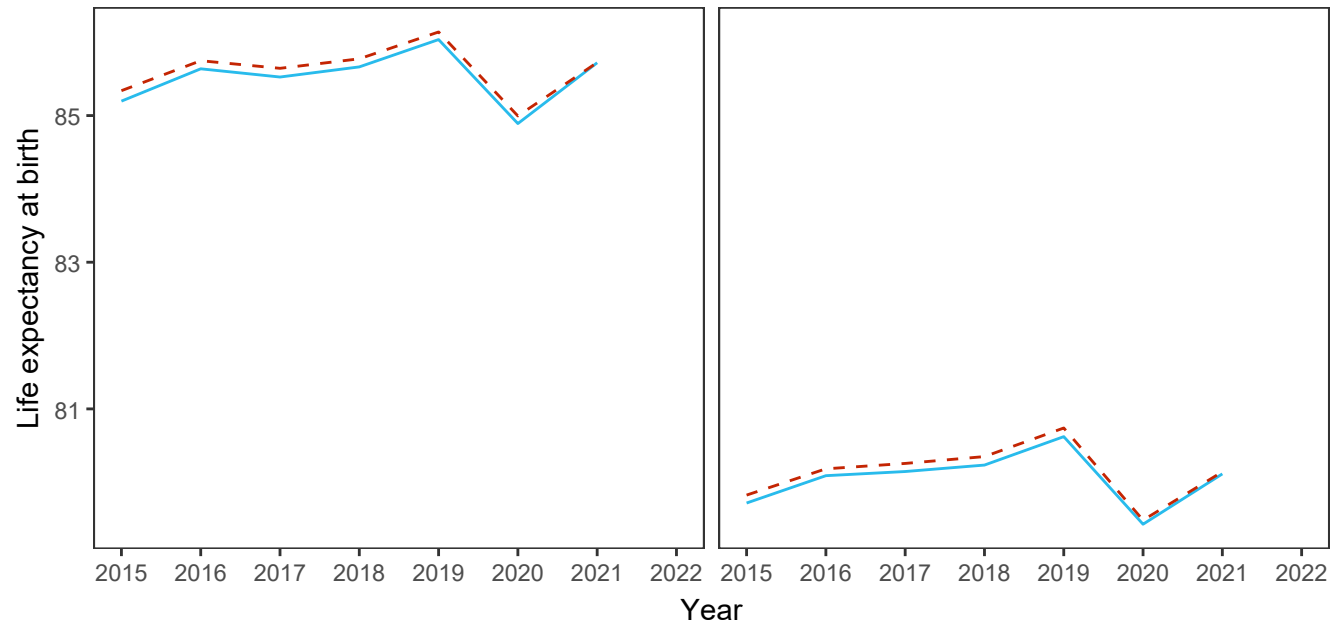
— Author - - UNWPP

Figure S4r

Comparison of life expectancy at birth (Spain),
author data set (solid line) vs. UNWPP (dashed line)

Female

Male



— Author - - UNWPP

Figure S4s

Comparison of life expectancy at birth (Sweden),
author data set (solid line) vs. UNWPP (dashed line)

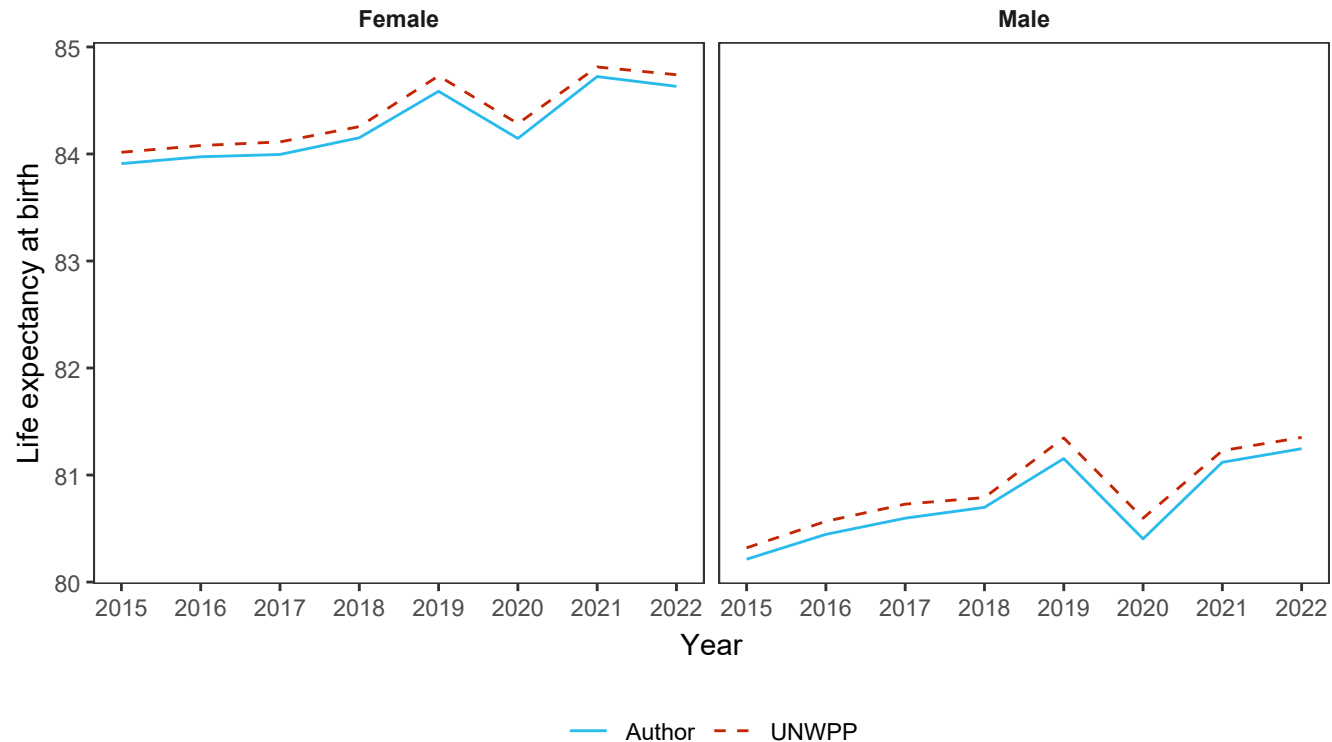
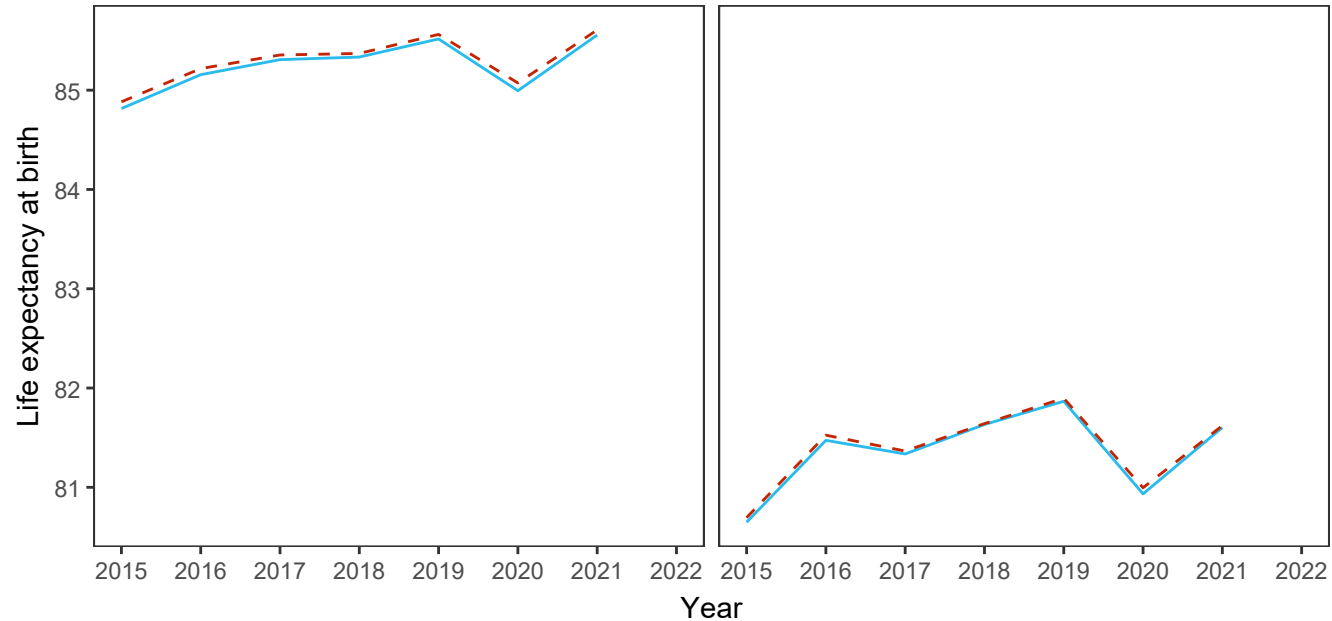


Figure S4t

Comparison of life expectancy at birth (Switzerland),
author data set (solid line) vs. UNWPP (dashed line)

Female

Male



— Author - - UNWPP

Figure S4u

Comparison of life expectancy at birth (USA),
author data set (solid line) vs. UNWPP (dashed line)

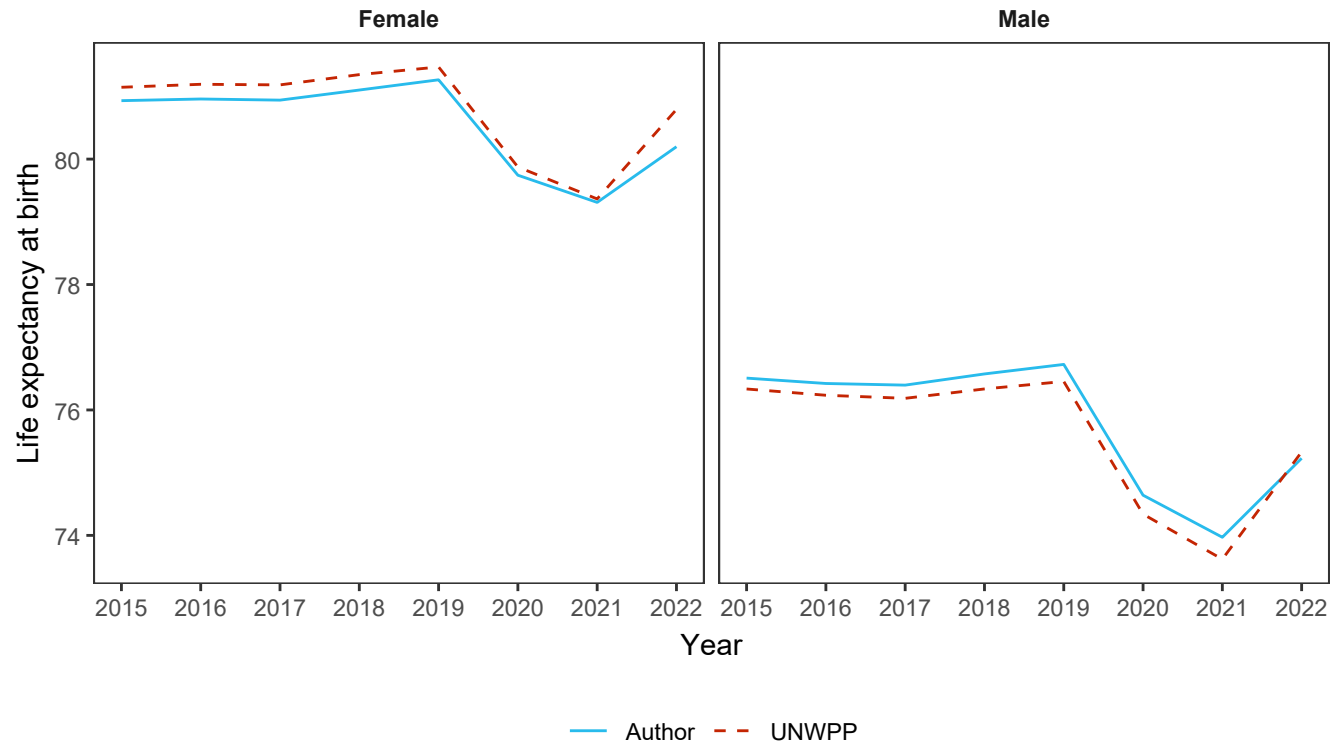


Figure S5

Contributions to changes in female life expectancy

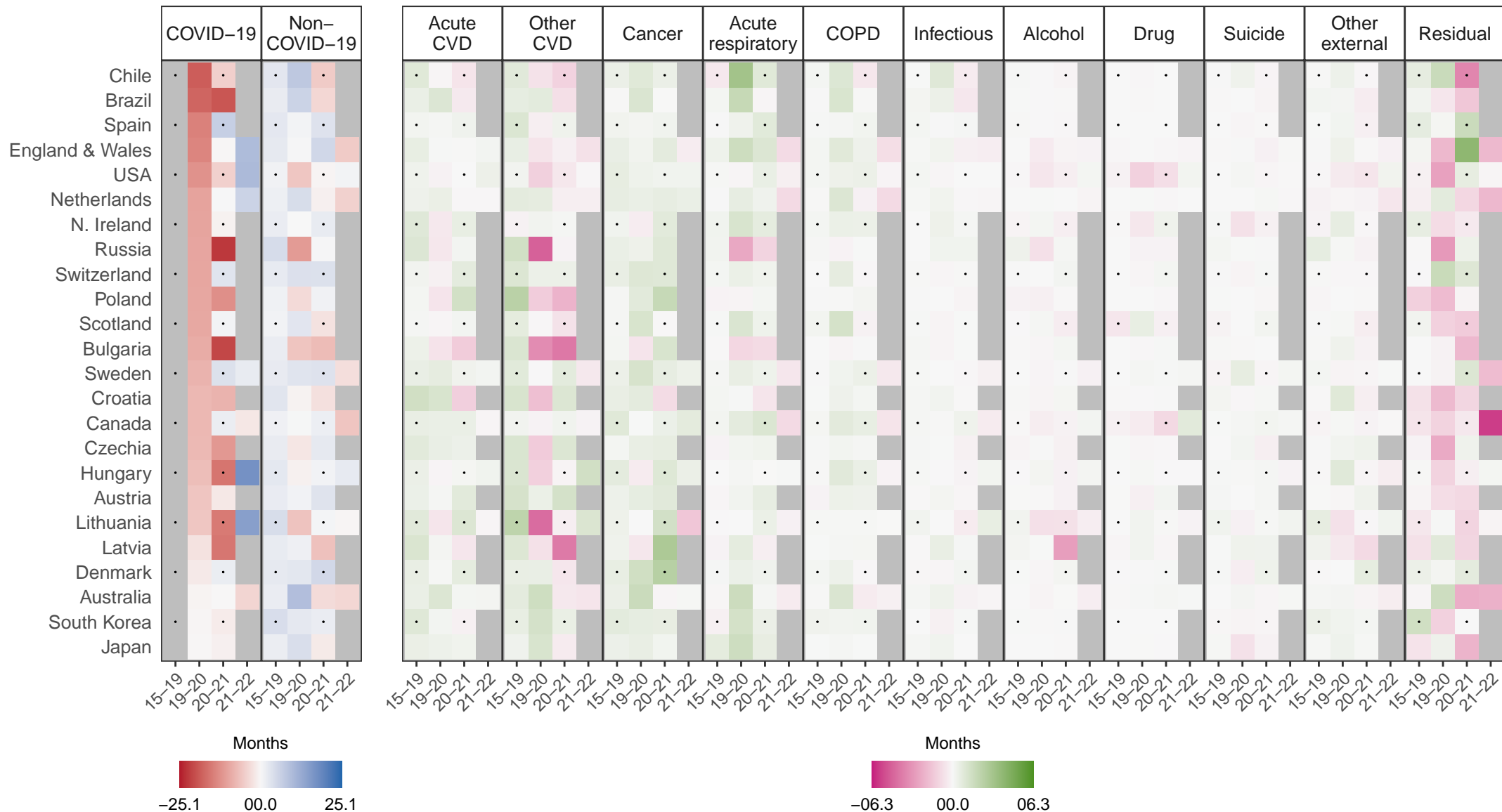


Figure S7a

Contributions to changes in female life expectancy
in Australia, Austria, Brazil

2015–2019 2019–2020 2020–2021 2021–2022

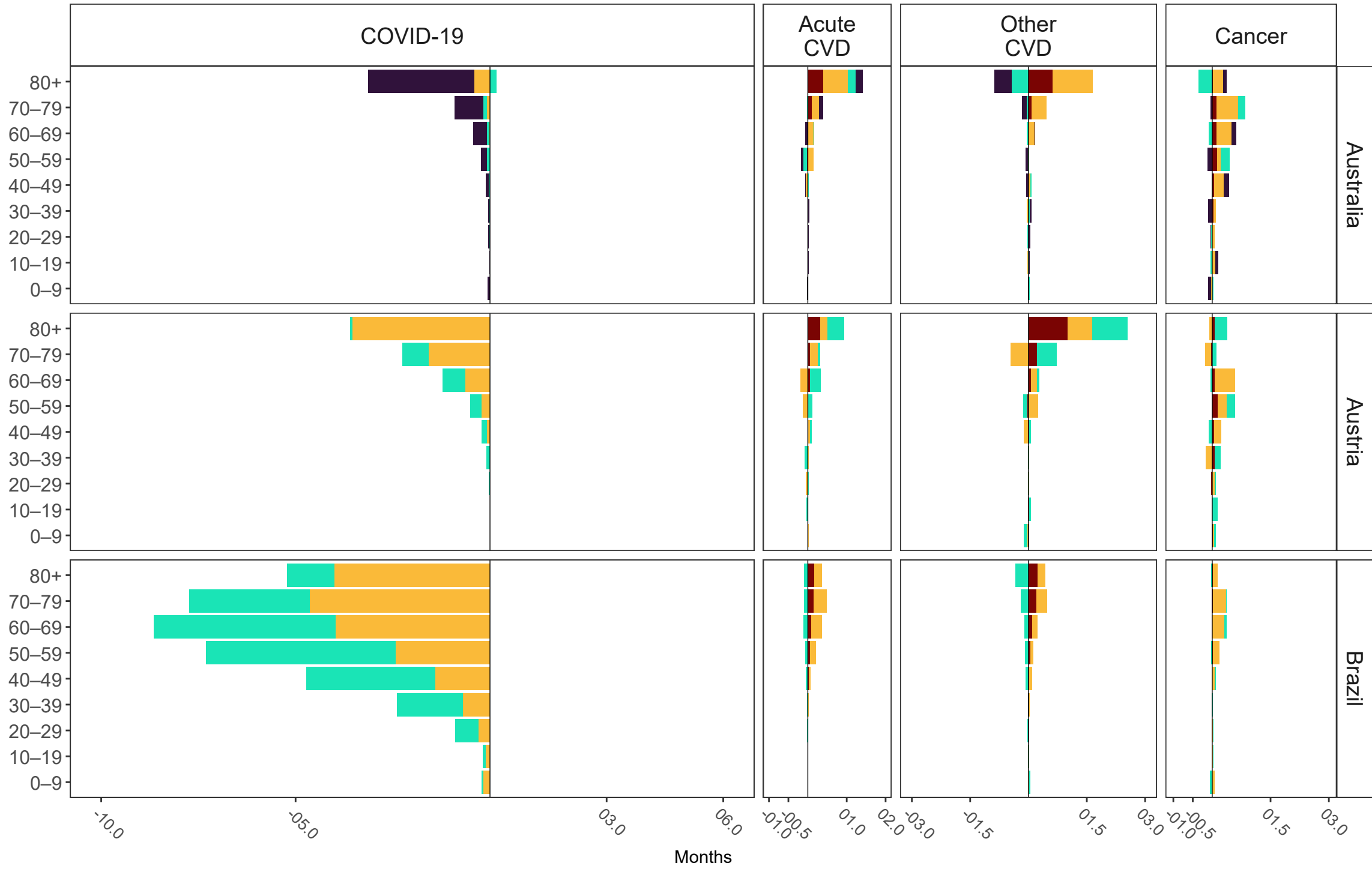


Figure S7b

Contributions to changes in female life expectancy
in Australia, Austria, Brazil

2015–2019 2019–2020 2020–2021 2021–2022

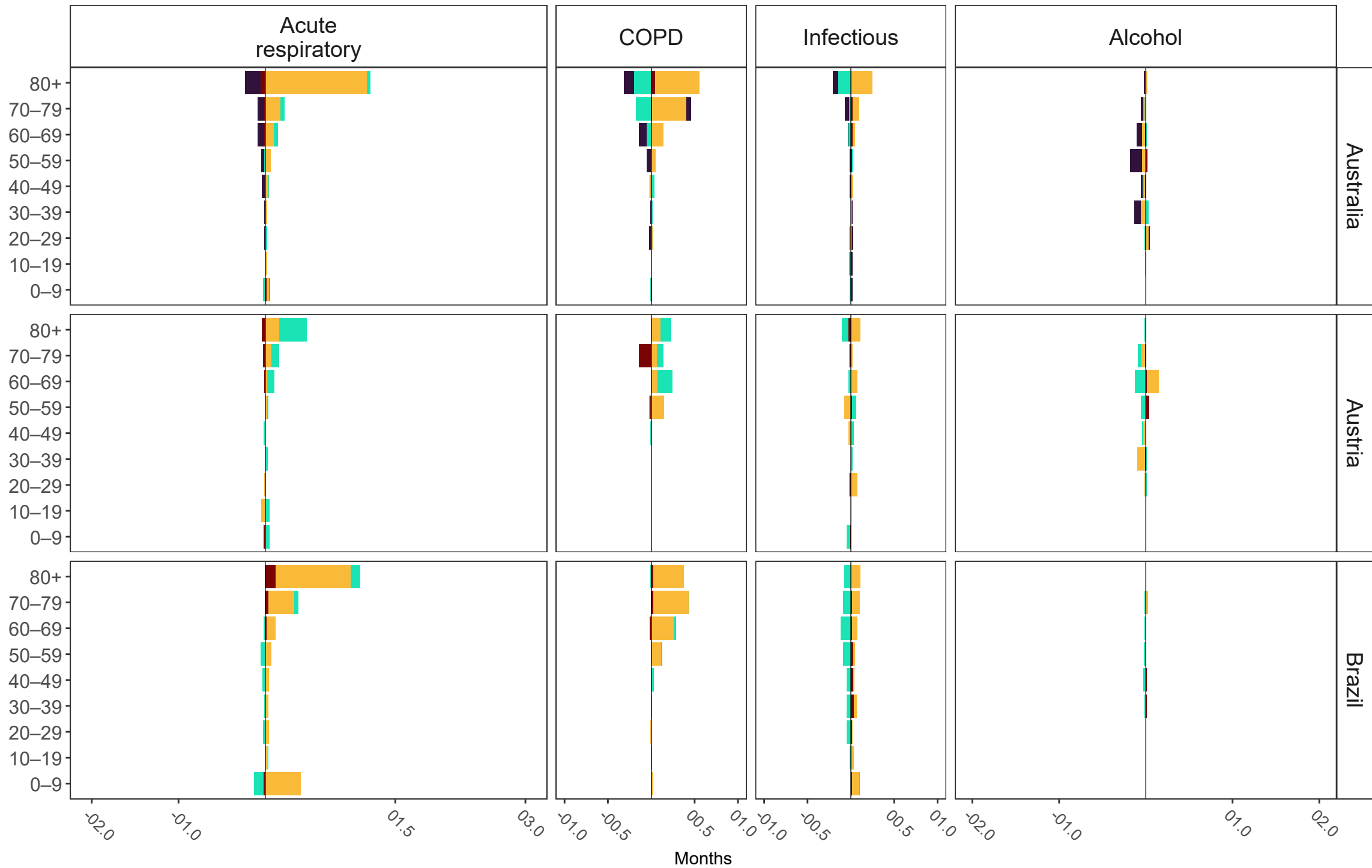


Figure S7c

Contributions to changes in female life expectancy
in Australia, Austria, Brazil

2015–2019 2019–2020 2020–2021 2021–2022

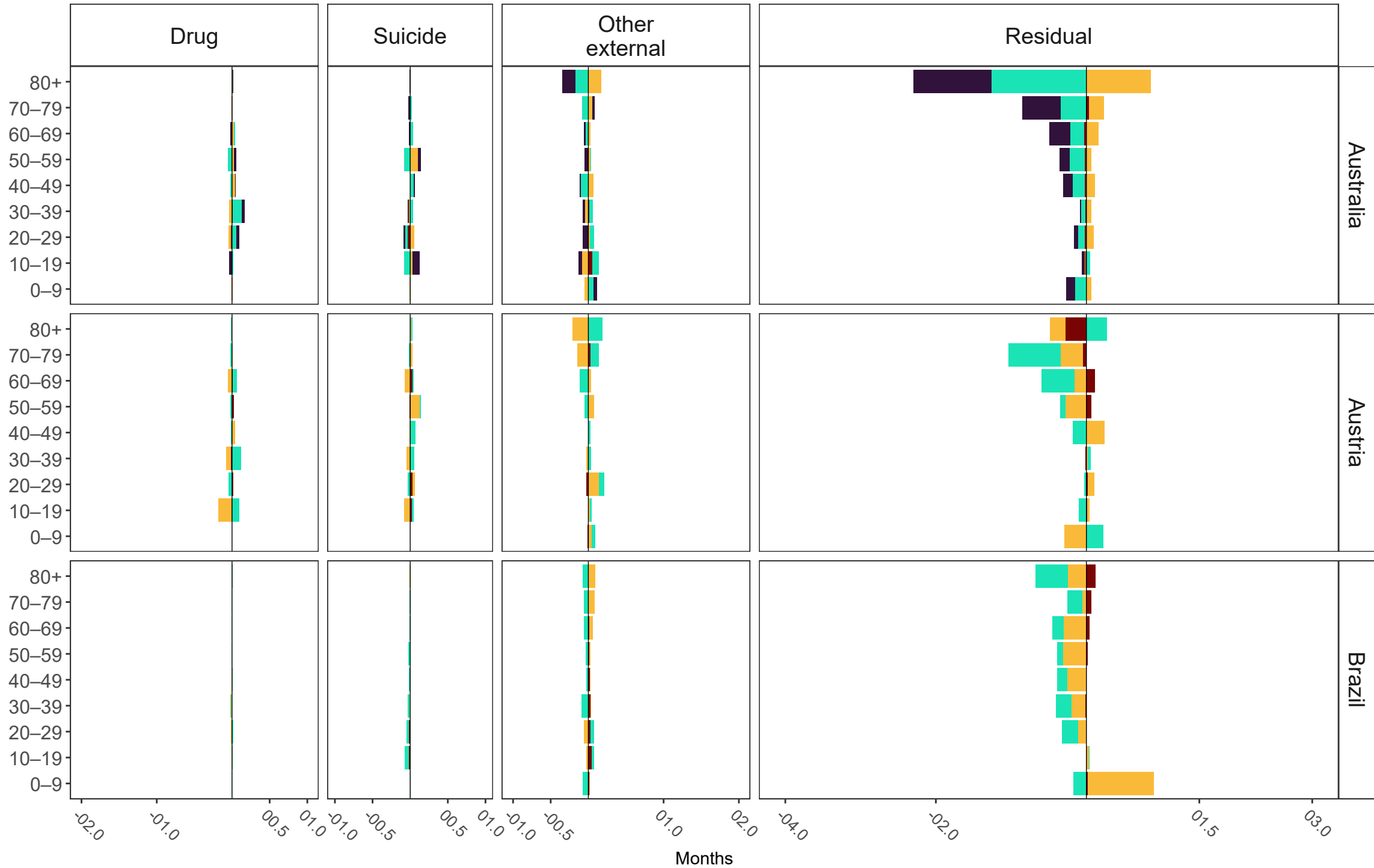


Figure S7d

Contributions to changes in female life expectancy
in Bulgaria, Canada, Chile

2015–2019 2019–2020 2020–2021 2021–2022

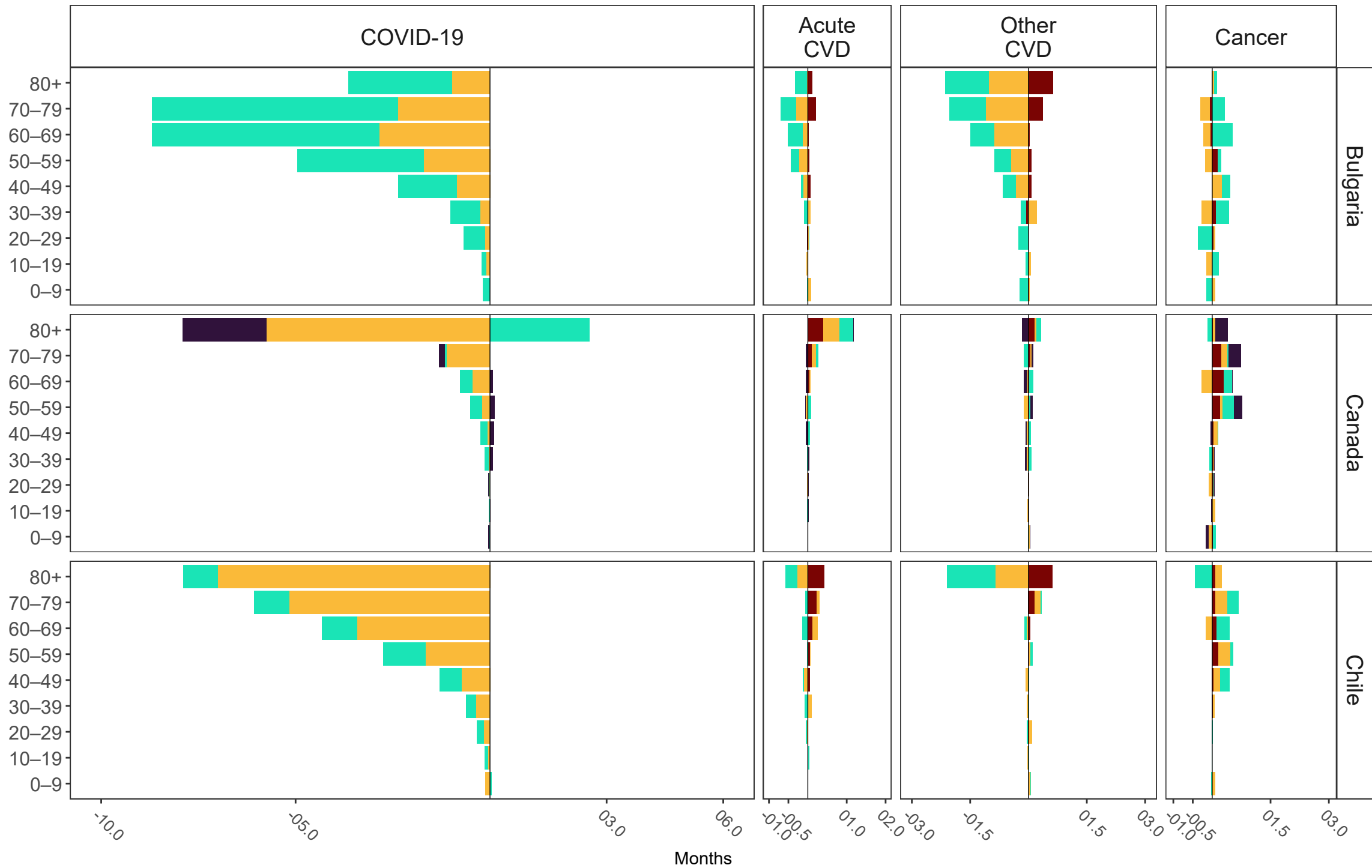


Figure S7e

Contributions to changes in female life expectancy
in Bulgaria, Canada, Chile

2015–2019 2019–2020 2020–2021 2021–2022

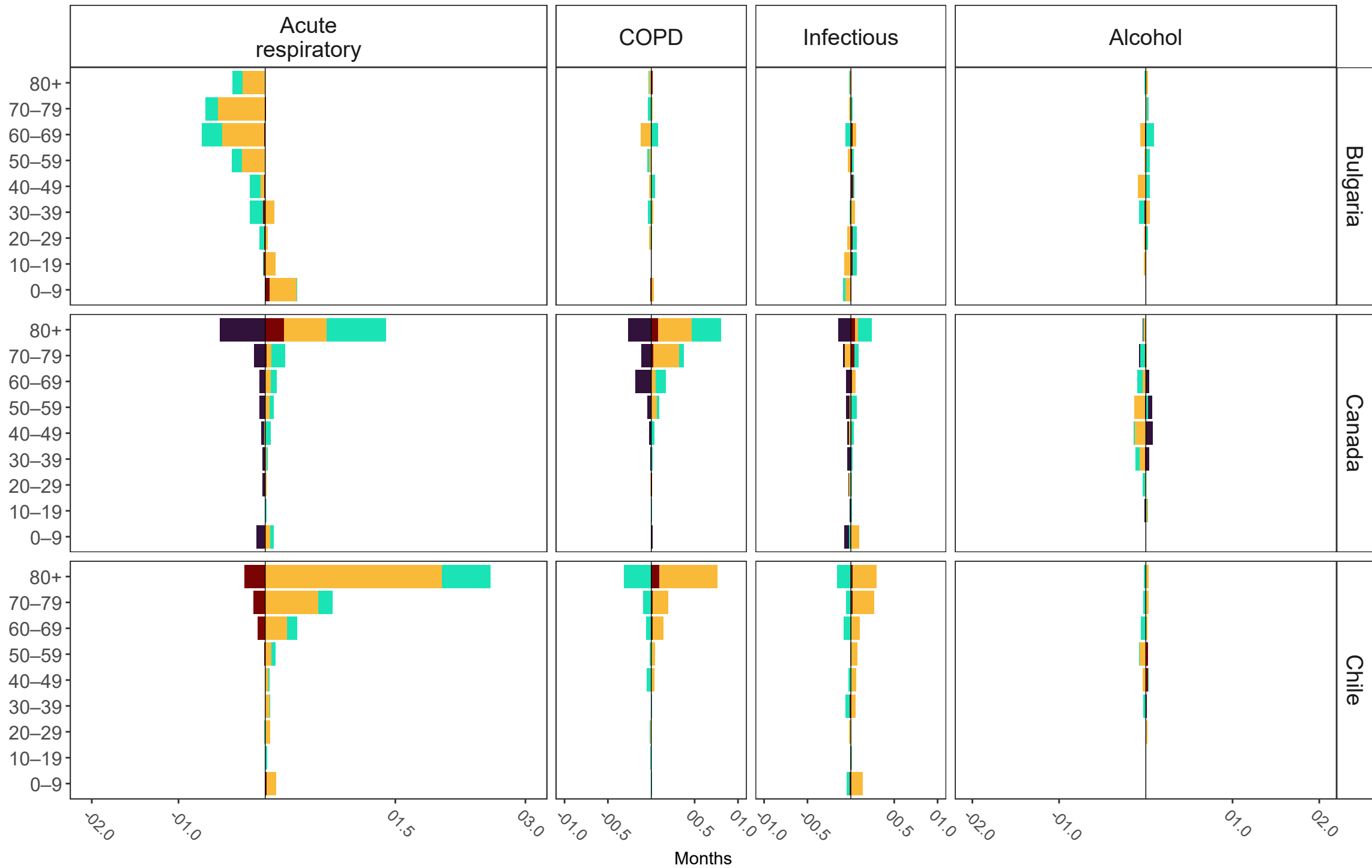


Figure S7f

Contributions to changes in female life expectancy
in Bulgaria, Canada, Chile

2015–2019 2019–2020 2020–2021 2021–2022

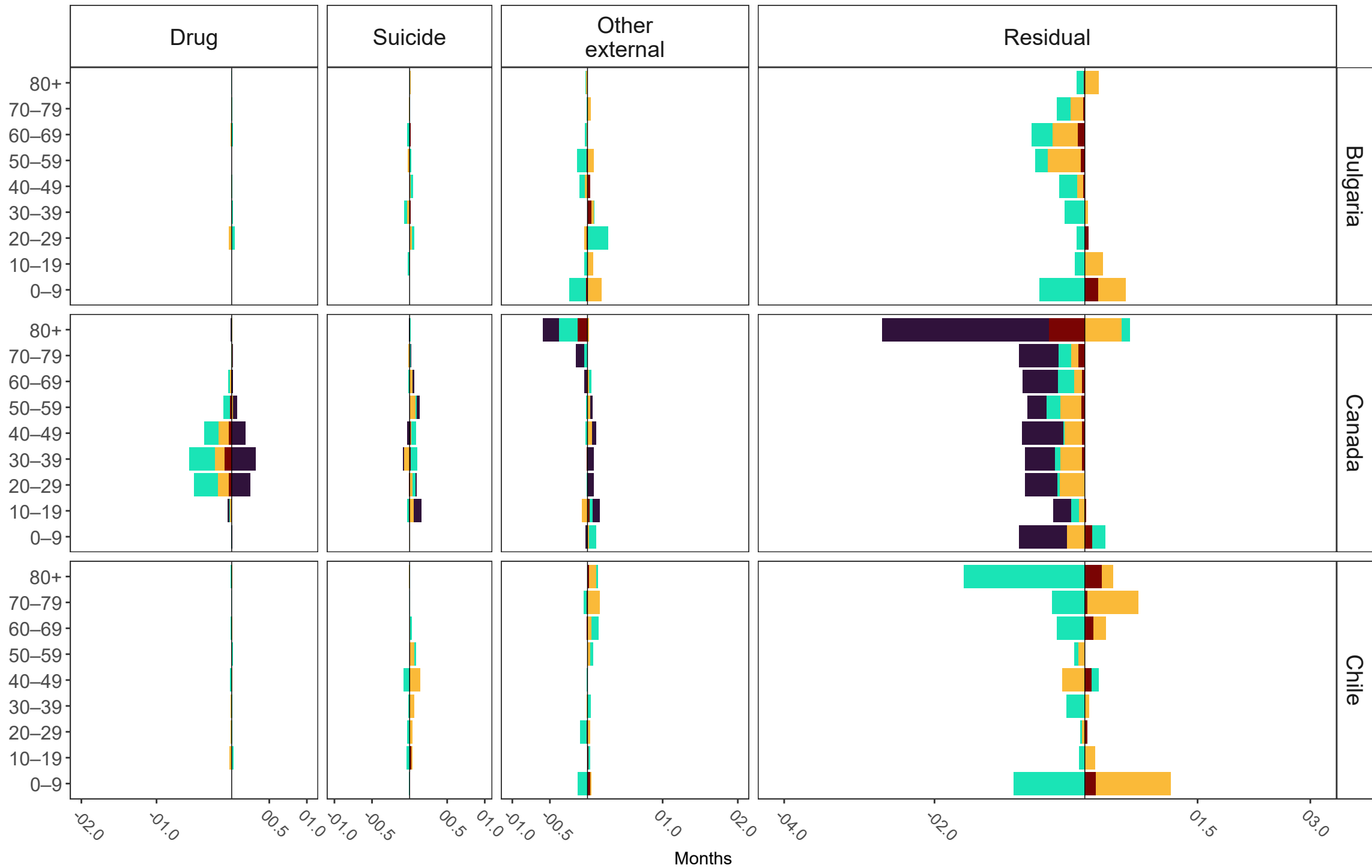


Figure S7g

Contributions to changes in female life expectancy
in Croatia, Czechia, Denmark

2015–2019 2019–2020 2020–2021

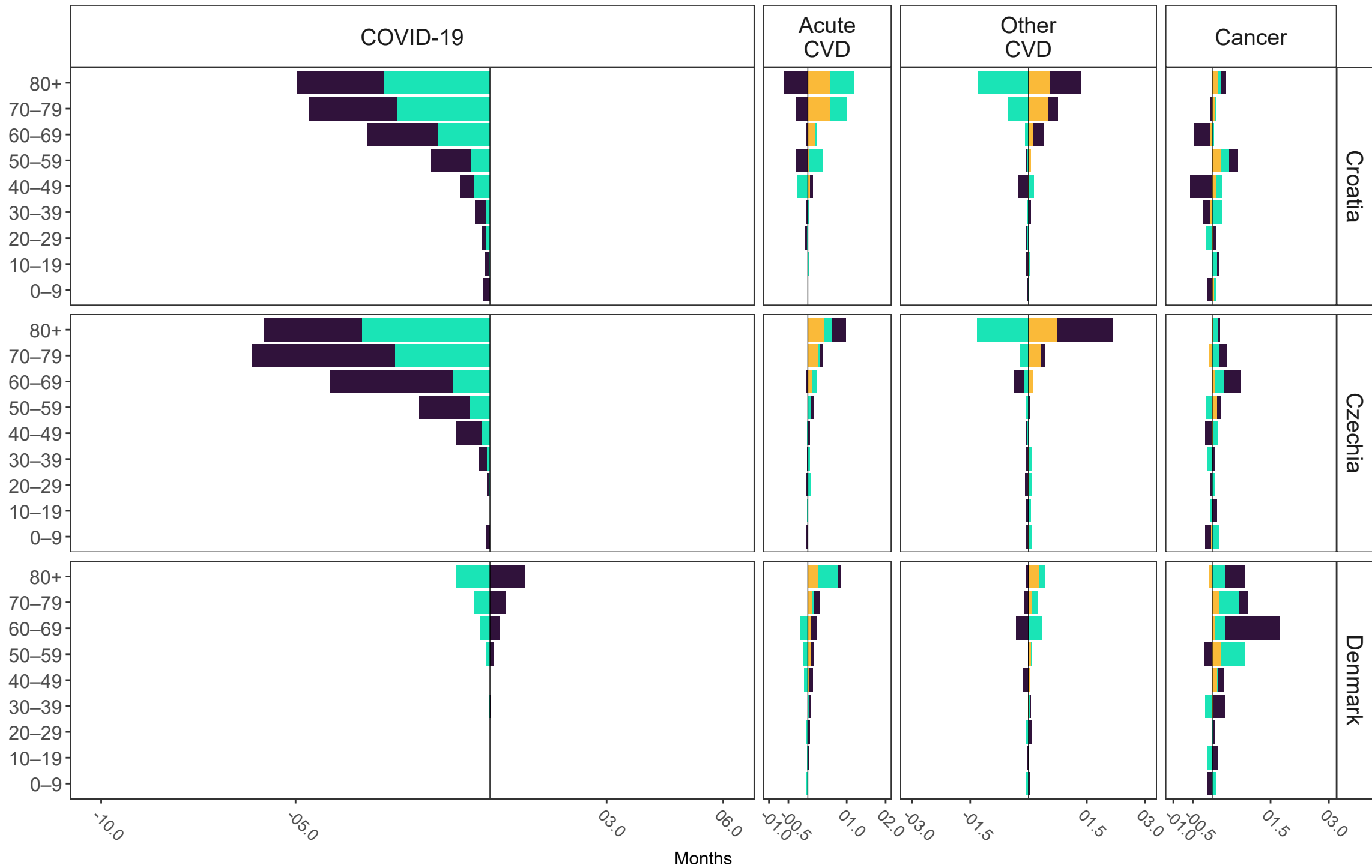


Figure S7h

Contributions to changes in female life expectancy
in Croatia, Czechia, Denmark

2015–2019 2019–2020 2020–2021

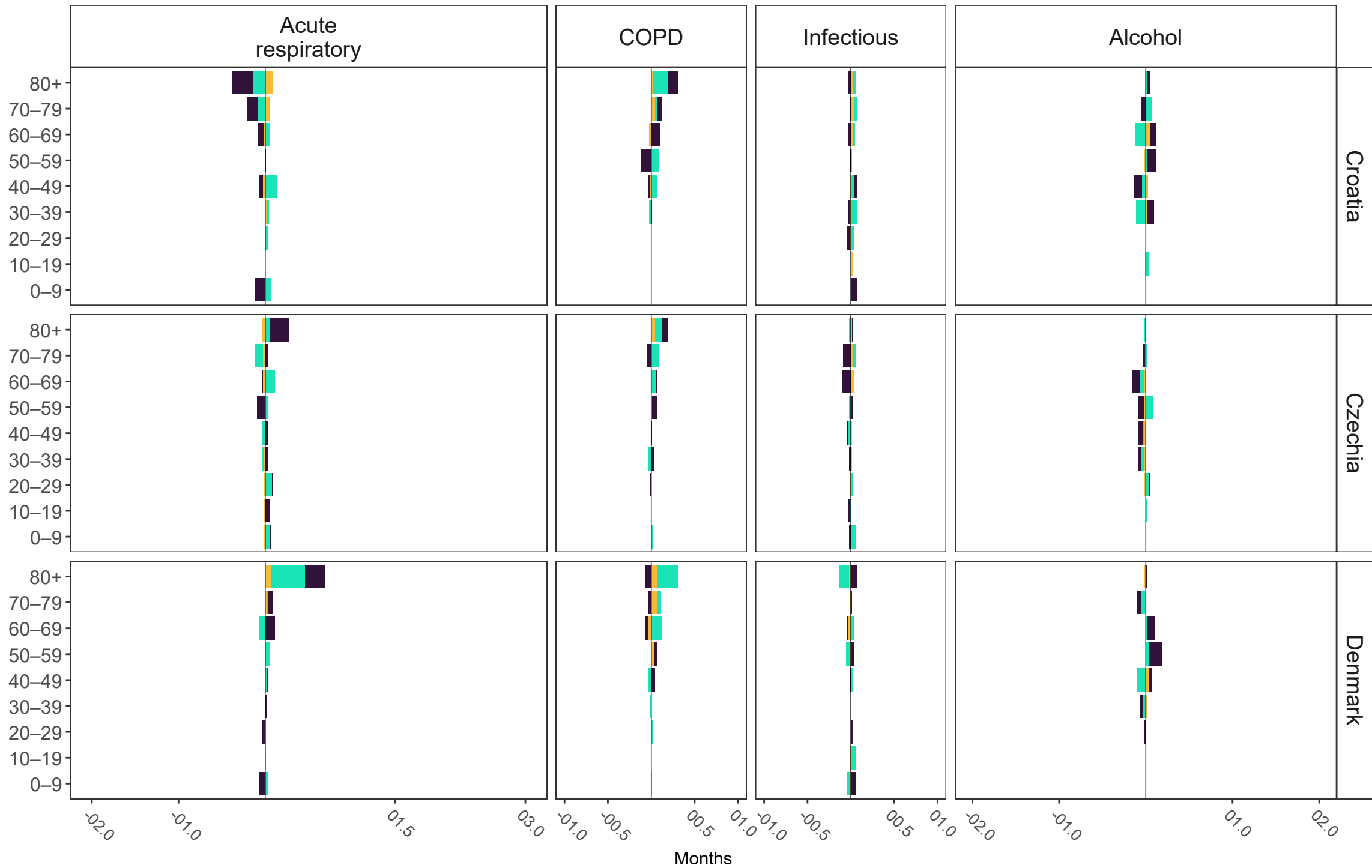


Figure S7i

Contributions to changes in female life expectancy
in Croatia, Czechia, Denmark

2015–2019 2019–2020 2020–2021

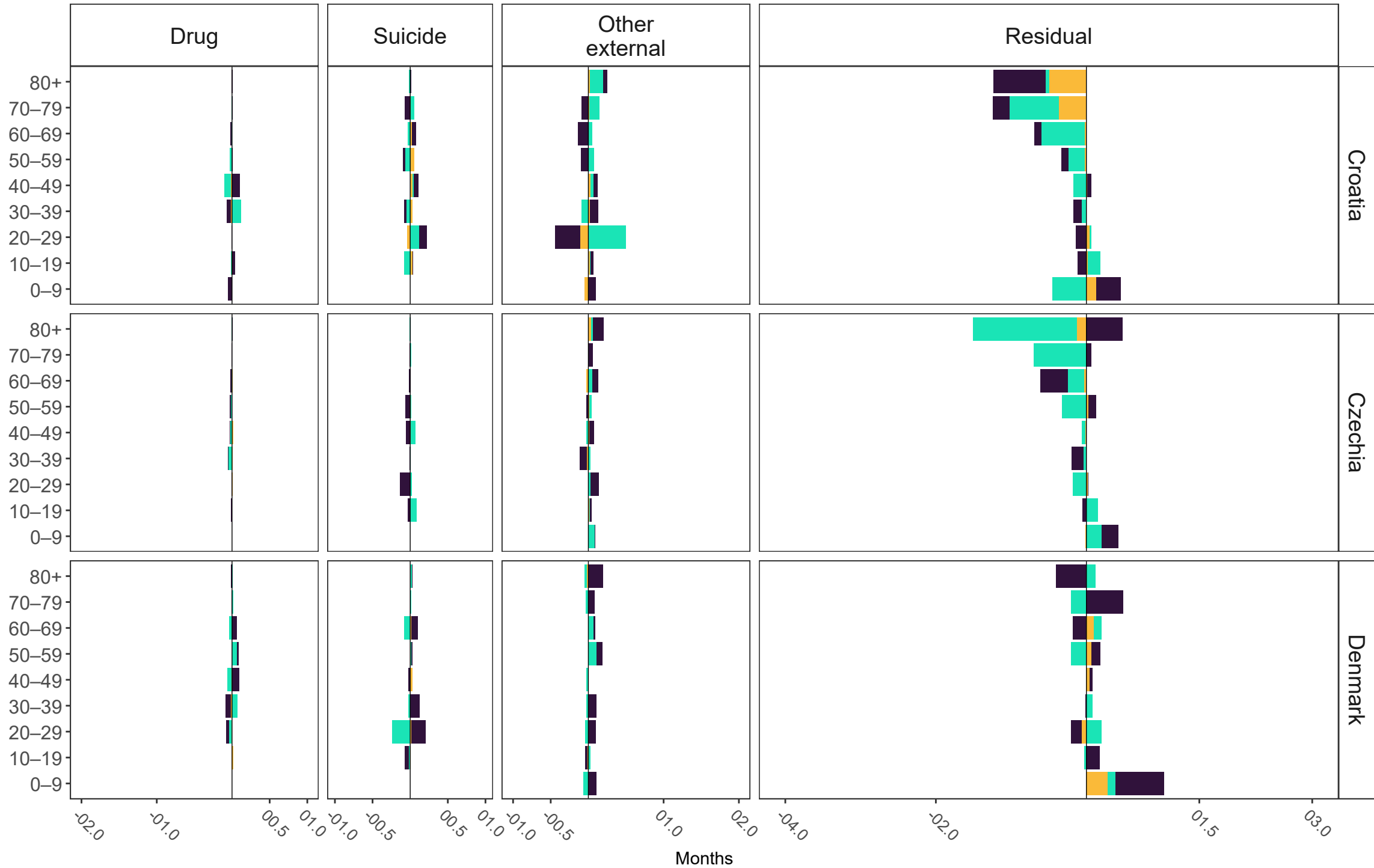


Figure S7j

Contributions to changes in female life expectancy
in England & Wales, Hungary, Japan

2015–2019 2019–2020 2020–2021 2021–2022

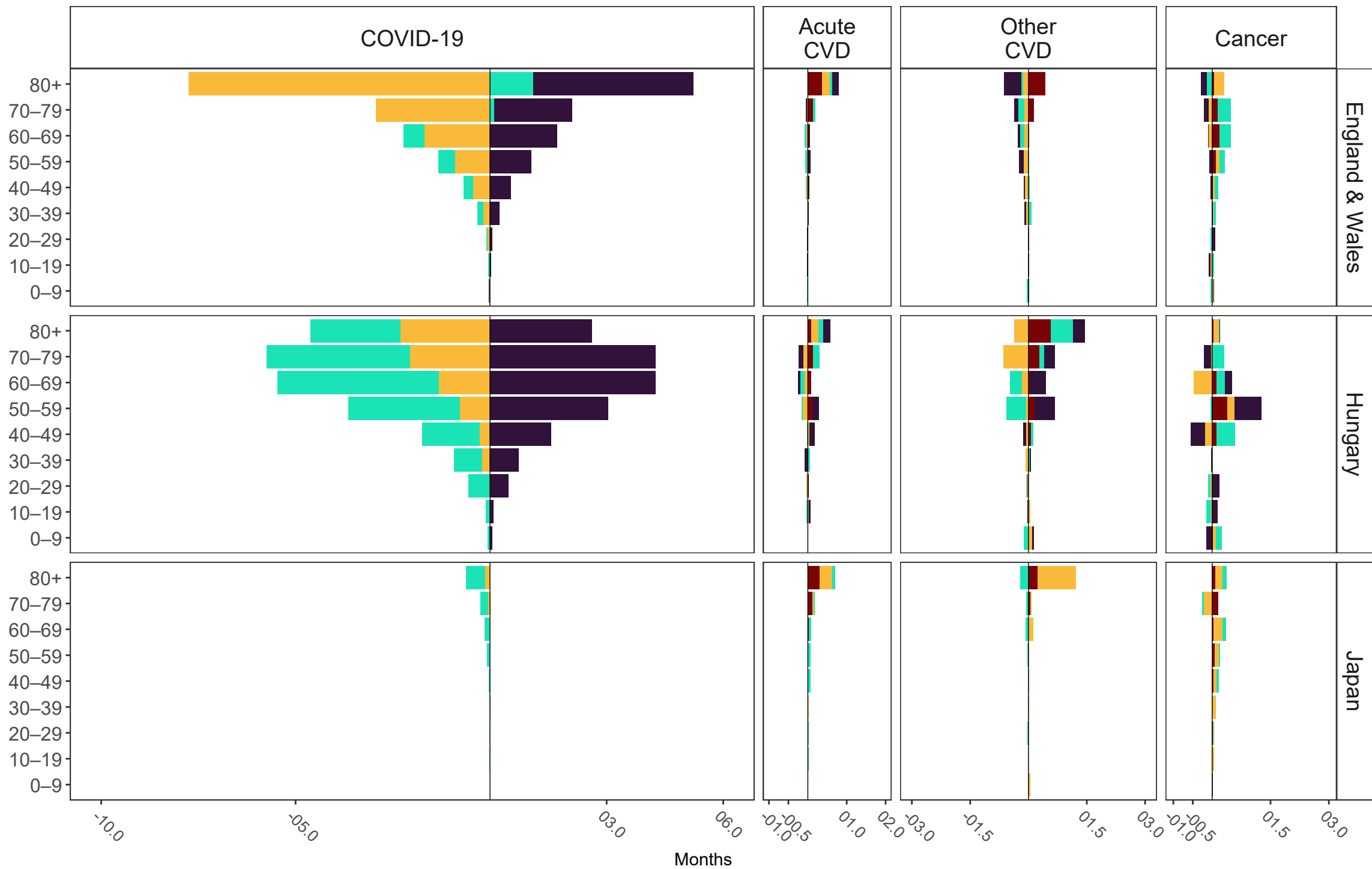


Figure S7k

Contributions to changes in female life expectancy
in England & Wales, Hungary, Japan

2015–2019 2019–2020 2020–2021 2021–2022

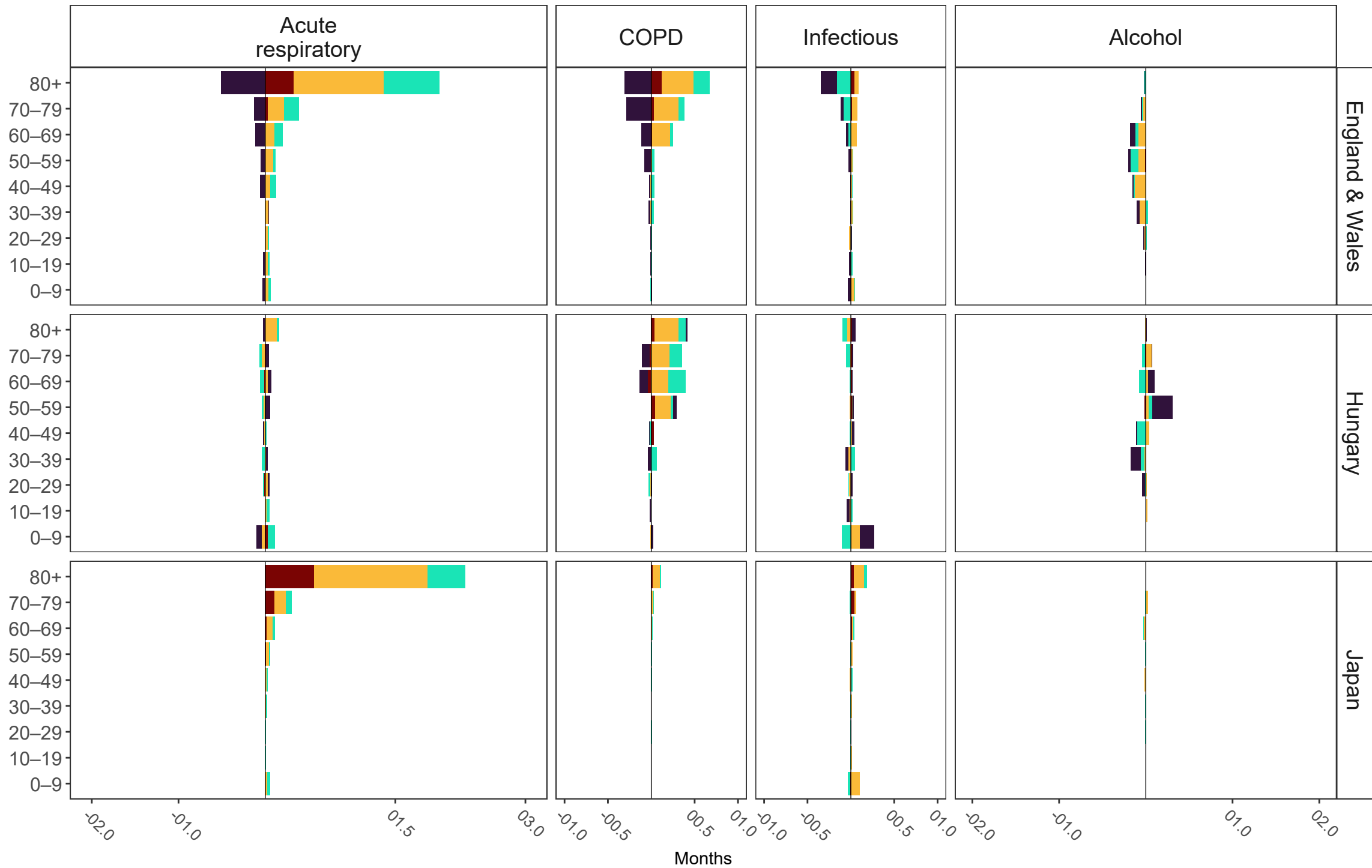


Figure S7I

Contributions to changes in female life expectancy
in England & Wales, Hungary, Japan

2015–2019 2019–2020 2020–2021 2021–2022

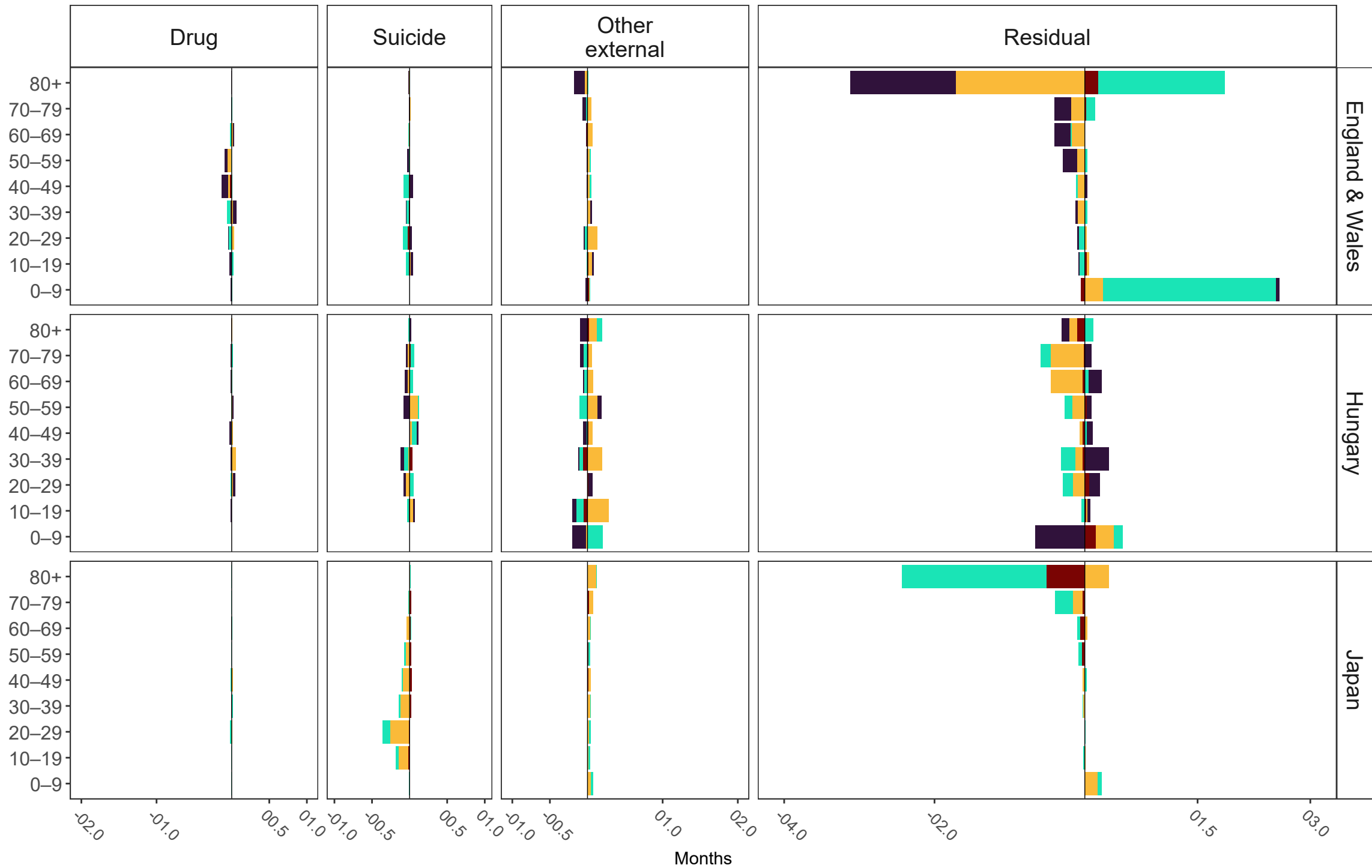


Figure S7m

Contributions to changes in female life expectancy
in Latvia, Lithuania, Netherlands

2015–2019 2019–2020 2020–2021 2021–2022

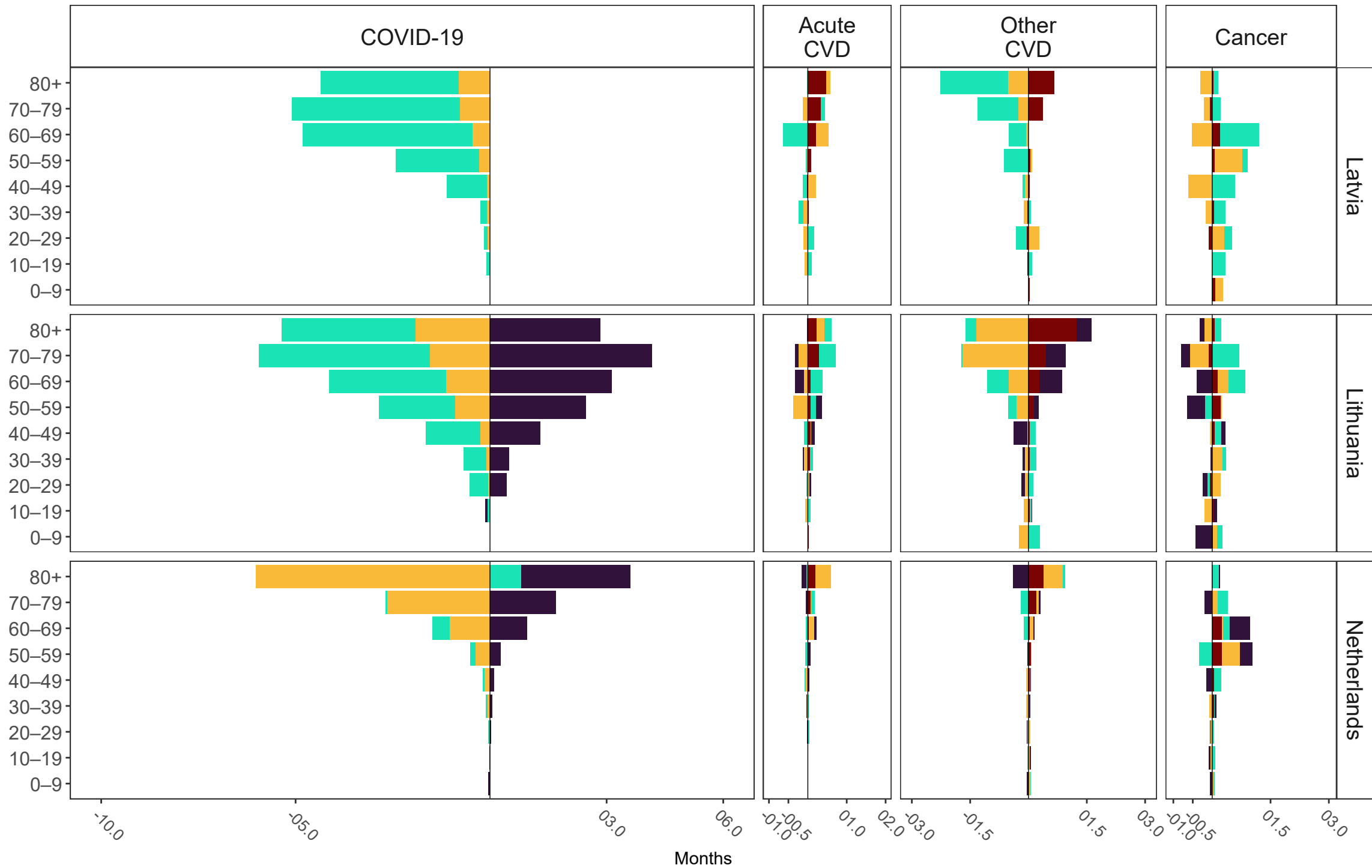


Figure S7n

Contributions to changes in female life expectancy
in Latvia, Lithuania, Netherlands

2015–2019 2019–2020 2020–2021 2021–2022

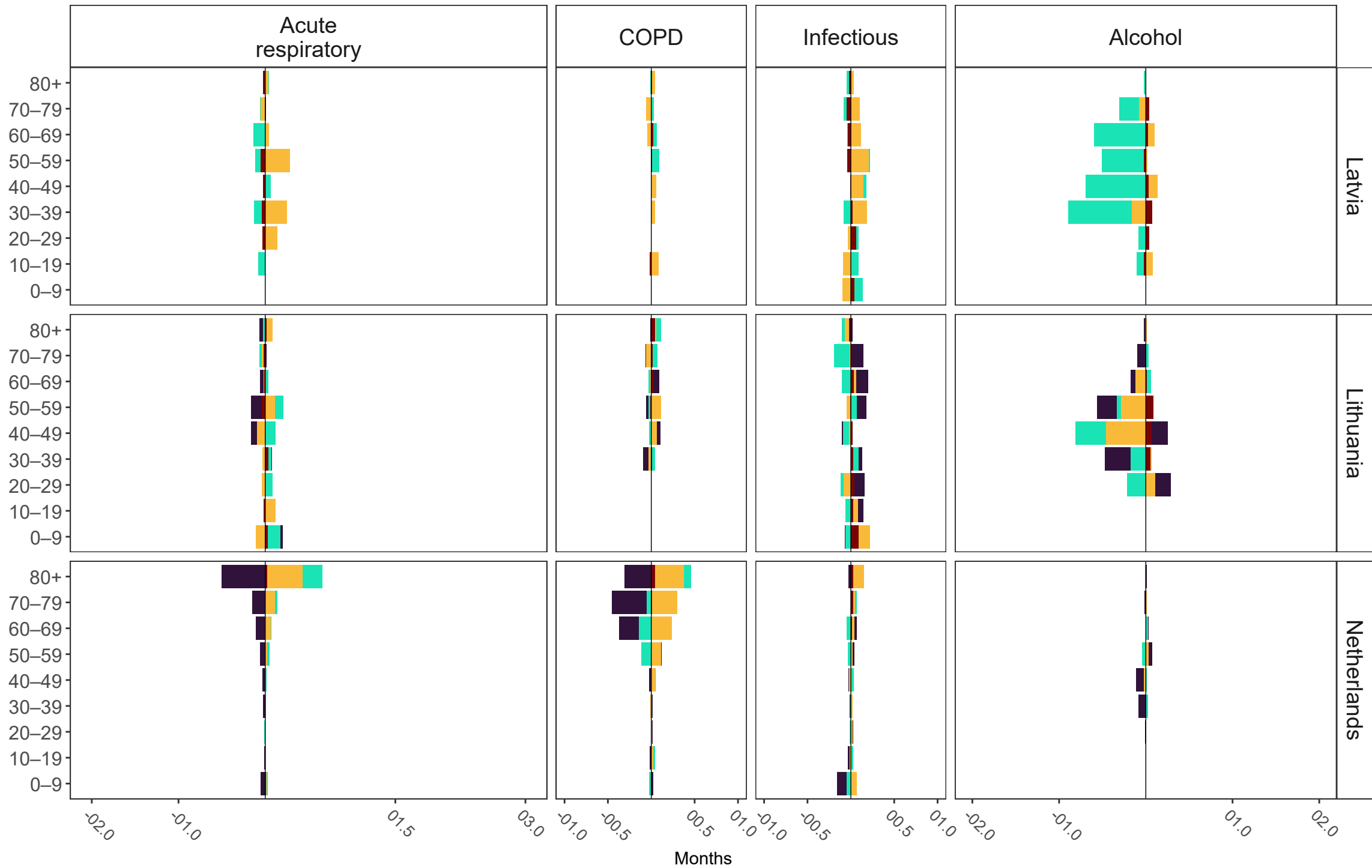


Figure S7o

Contributions to changes in female life expectancy
in Latvia, Lithuania, Netherlands

2015–2019 2019–2020 2020–2021 2021–2022

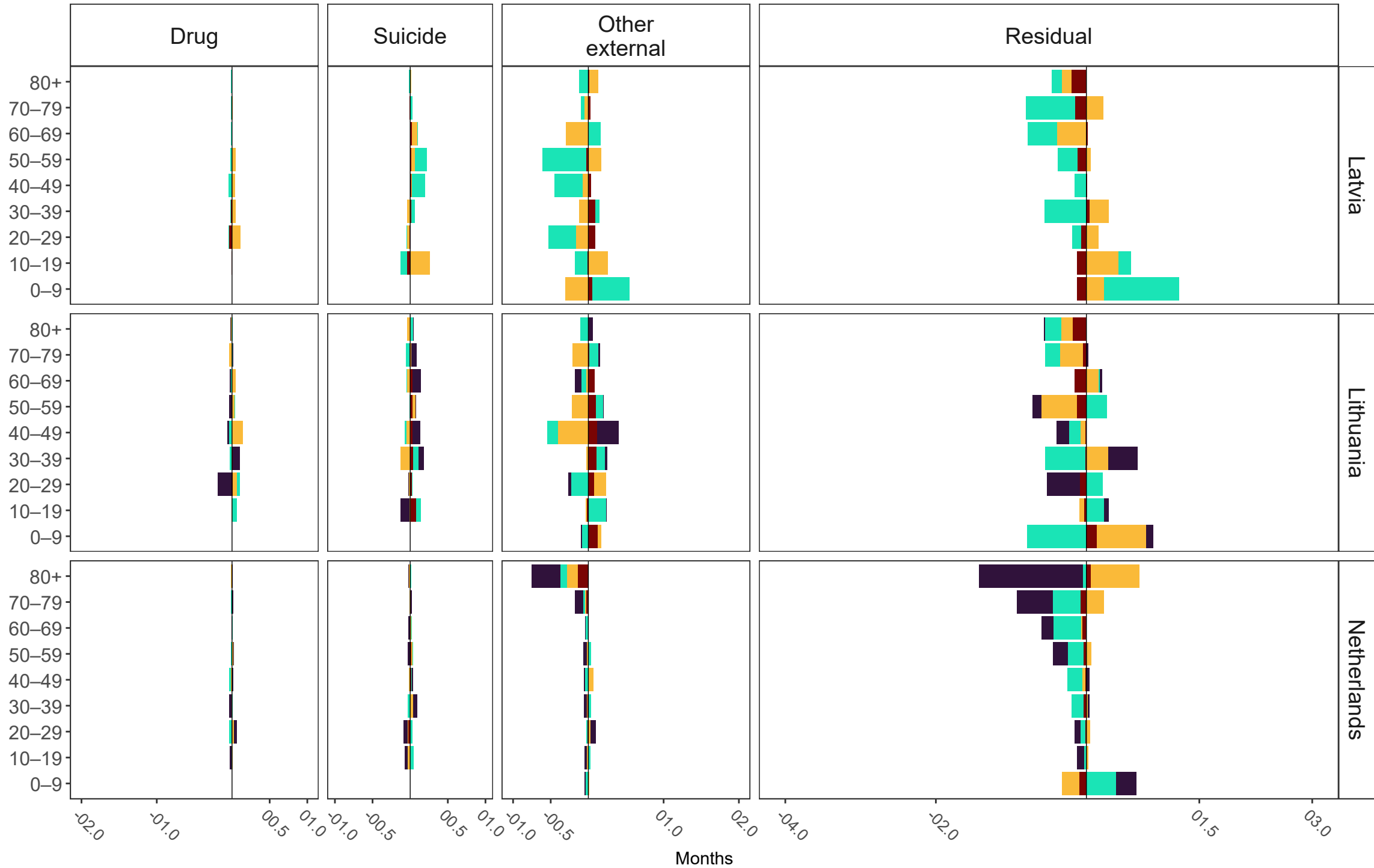


Figure S7p

Contributions to changes in female life expectancy
in N. Ireland, Poland, Russia

2015–2019 2019–2020 2020–2021

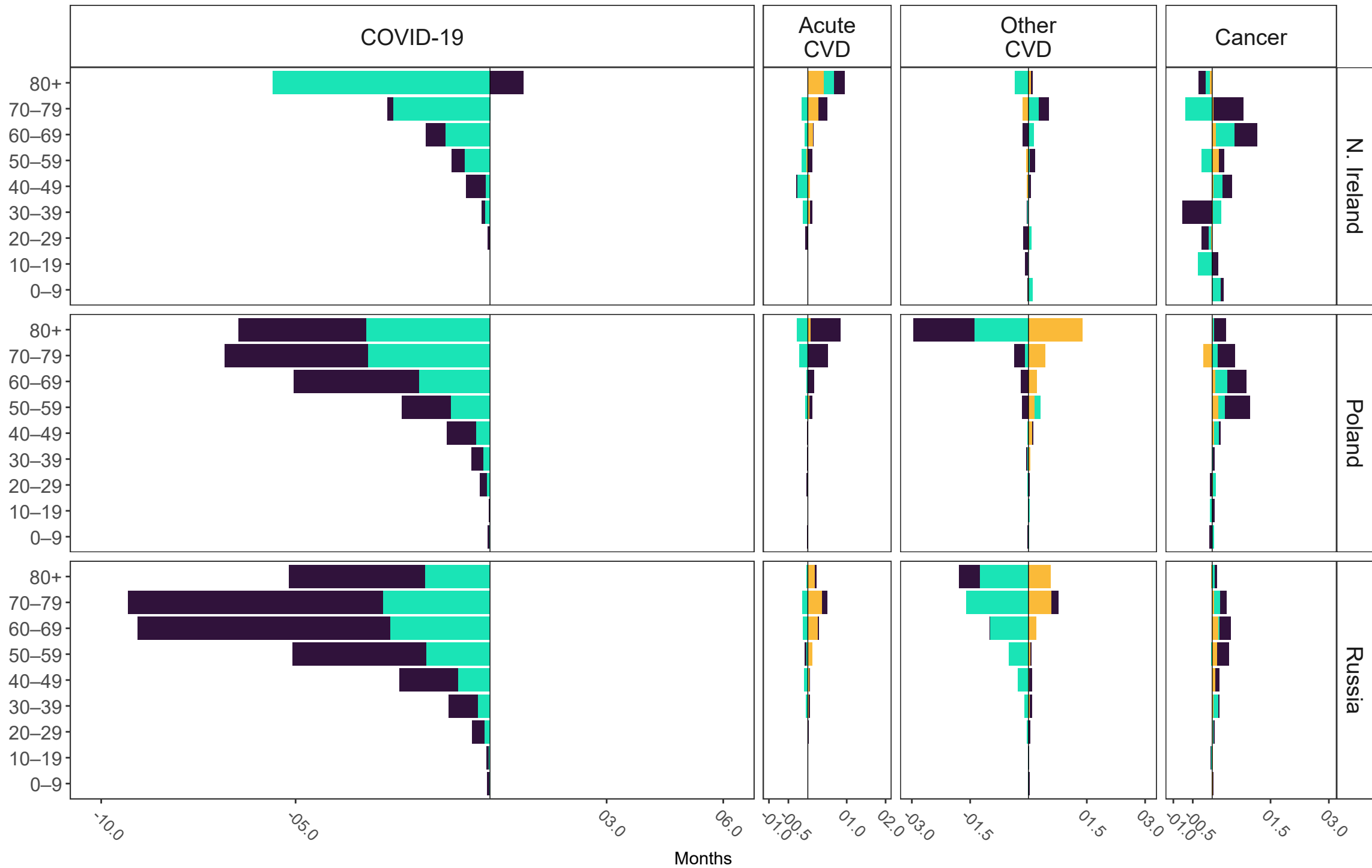


Figure S7q

Contributions to changes in female life expectancy
in N. Ireland, Poland, Russia

2015–2019 2019–2020 2020–2021

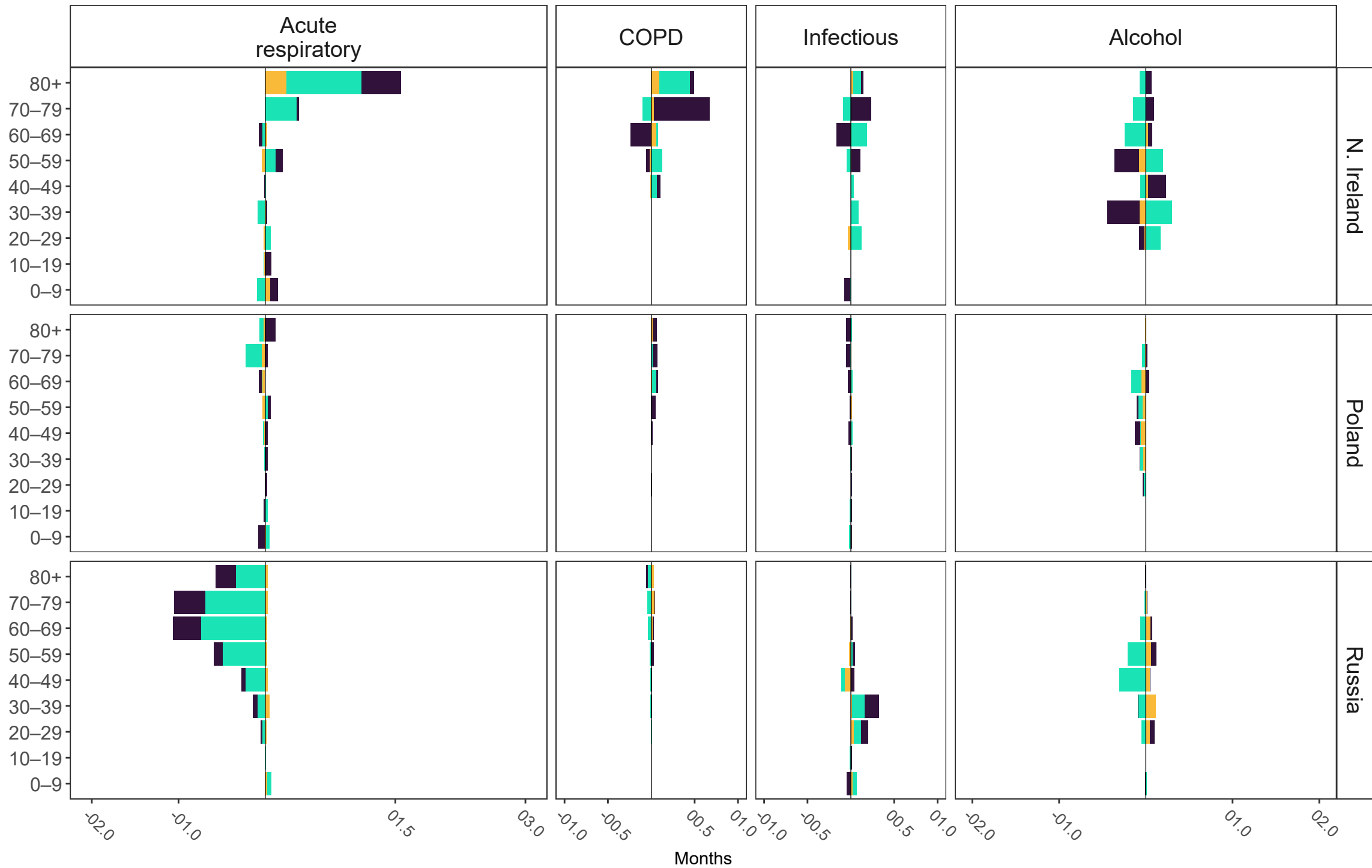


Figure S7r

Contributions to changes in female life expectancy
in N. Ireland, Poland, Russia

2015–2019 2019–2020 2020–2021

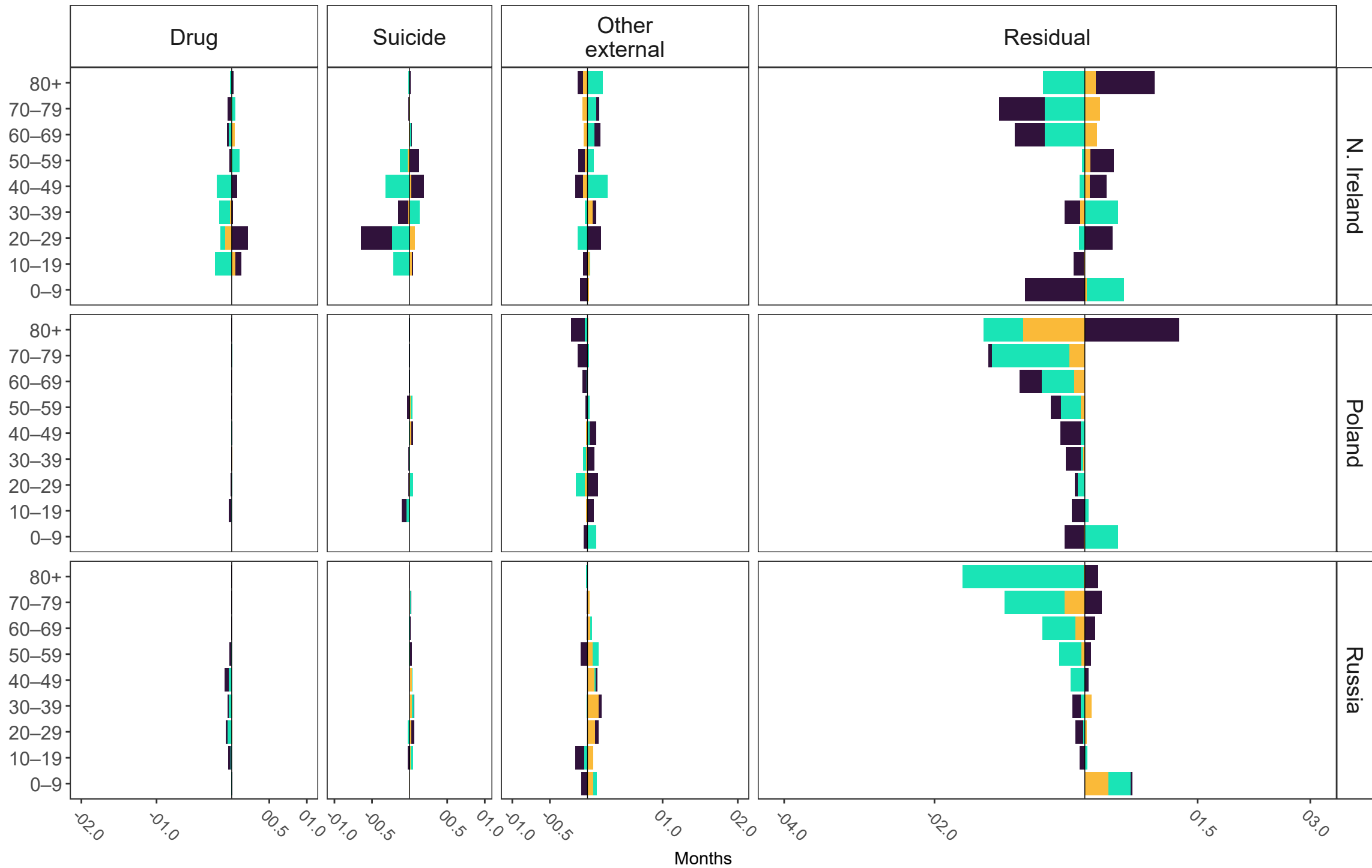


Figure S7s

Contributions to changes in female life expectancy
in Scotland, South Korea, Spain

2015–2019 2019–2020 2020–2021

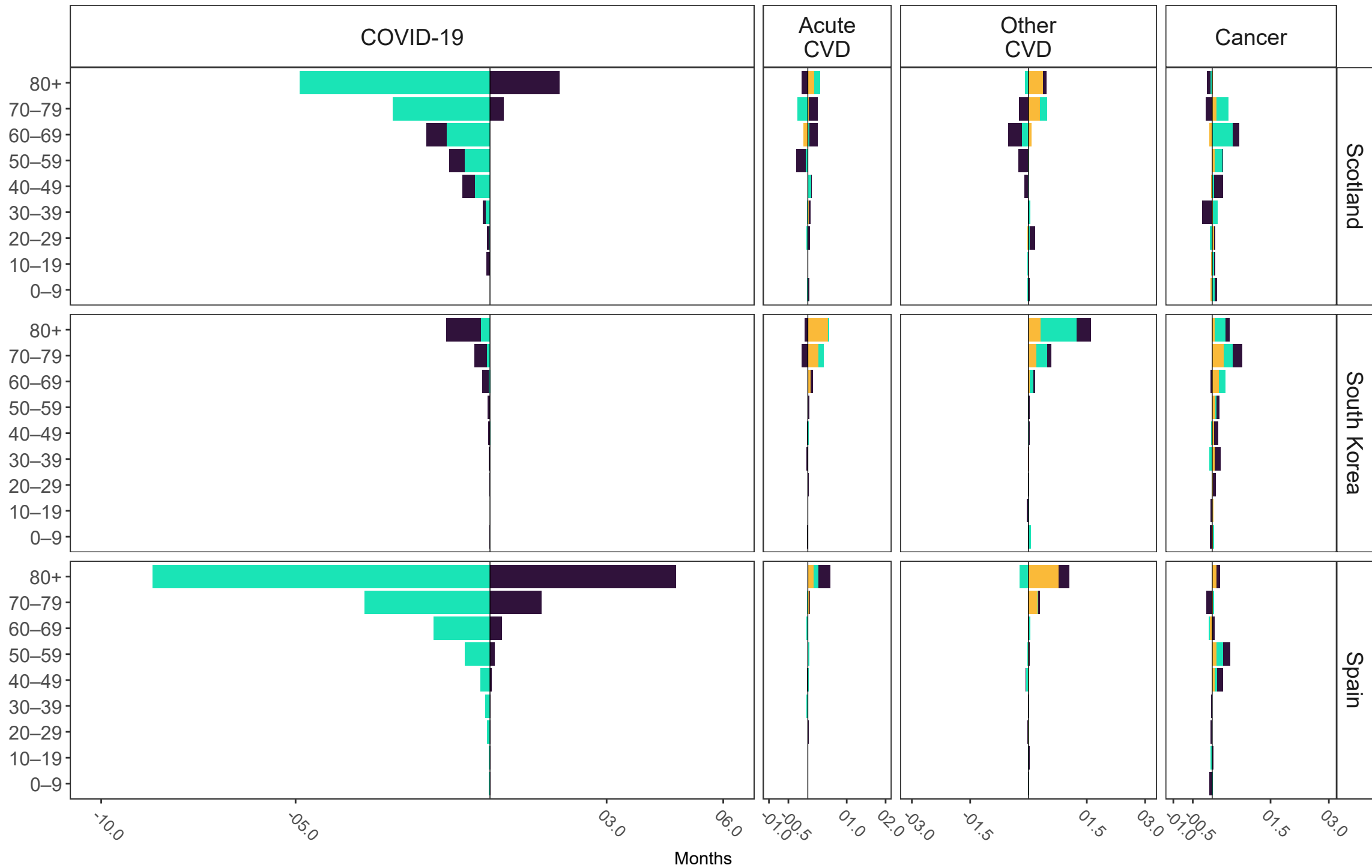


Figure S7t

Contributions to changes in female life expectancy
in Scotland, South Korea, Spain

2015–2019 2019–2020 2020–2021

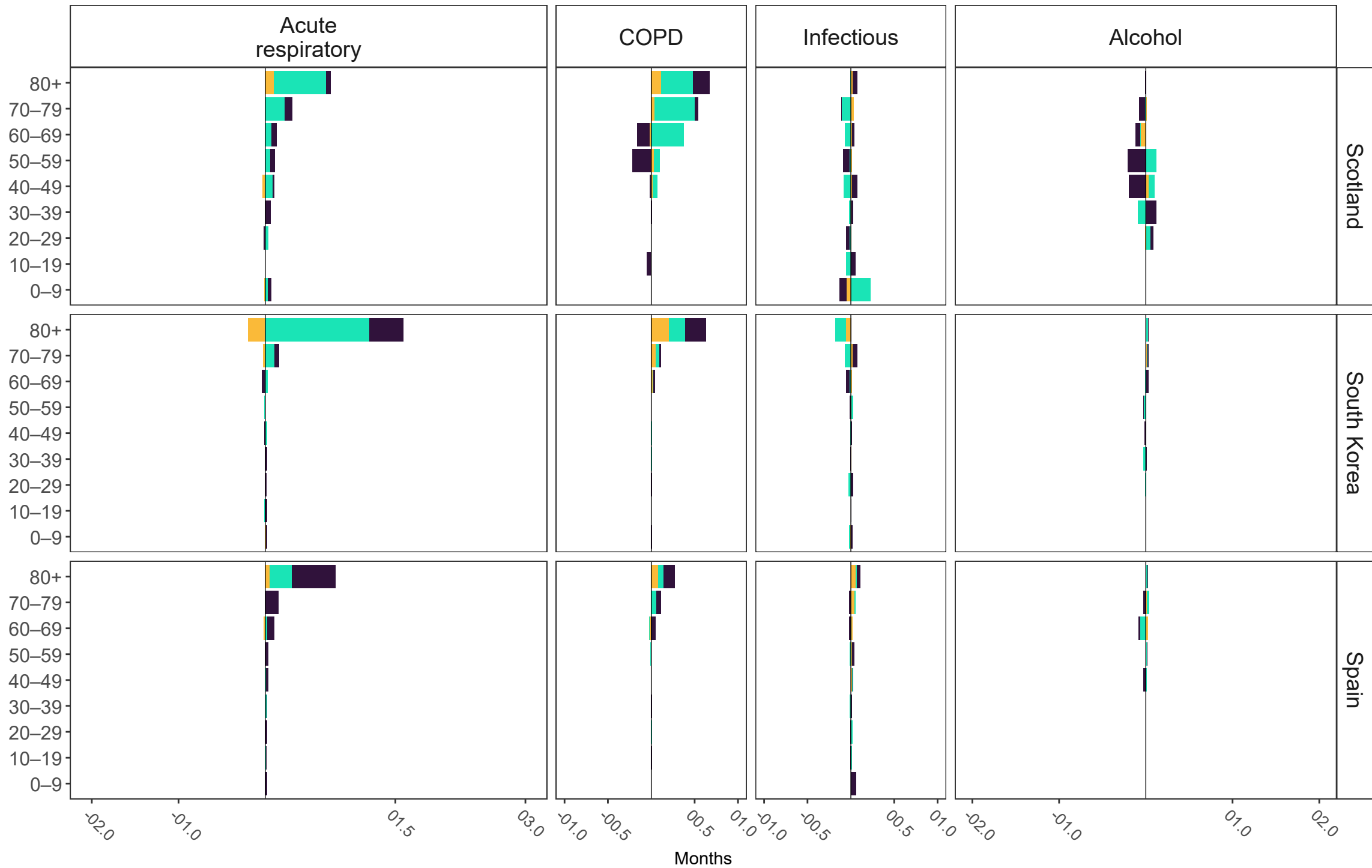


Figure S7u

Contributions to changes in female life expectancy
in Scotland, South Korea, Spain

2015–2019 2019–2020 2020–2021

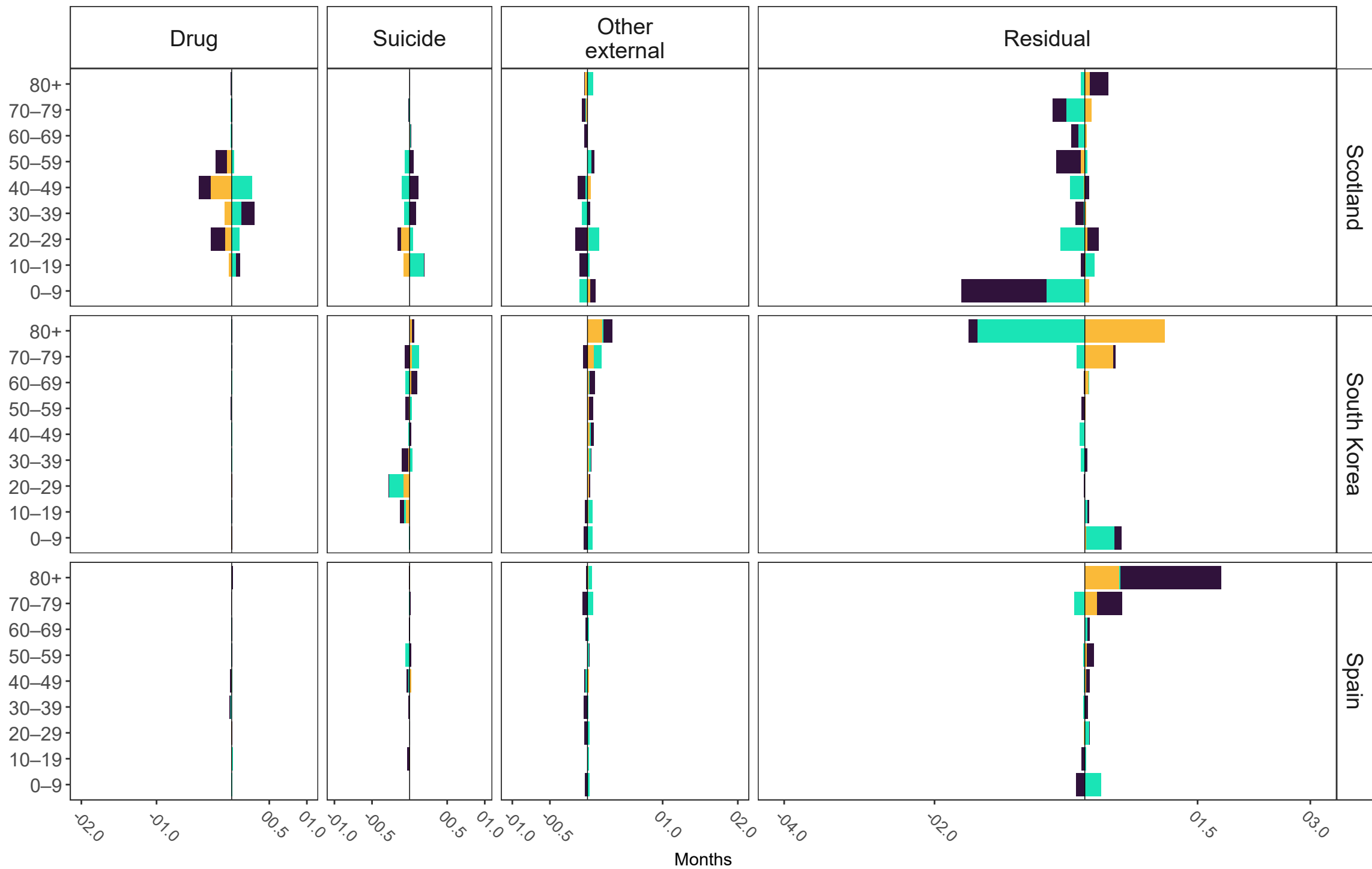


Figure S7v

Contributions to changes in female life expectancy
in Sweden, Switzerland, USA

2015–2019 2019–2020 2020–2021 2021–2022

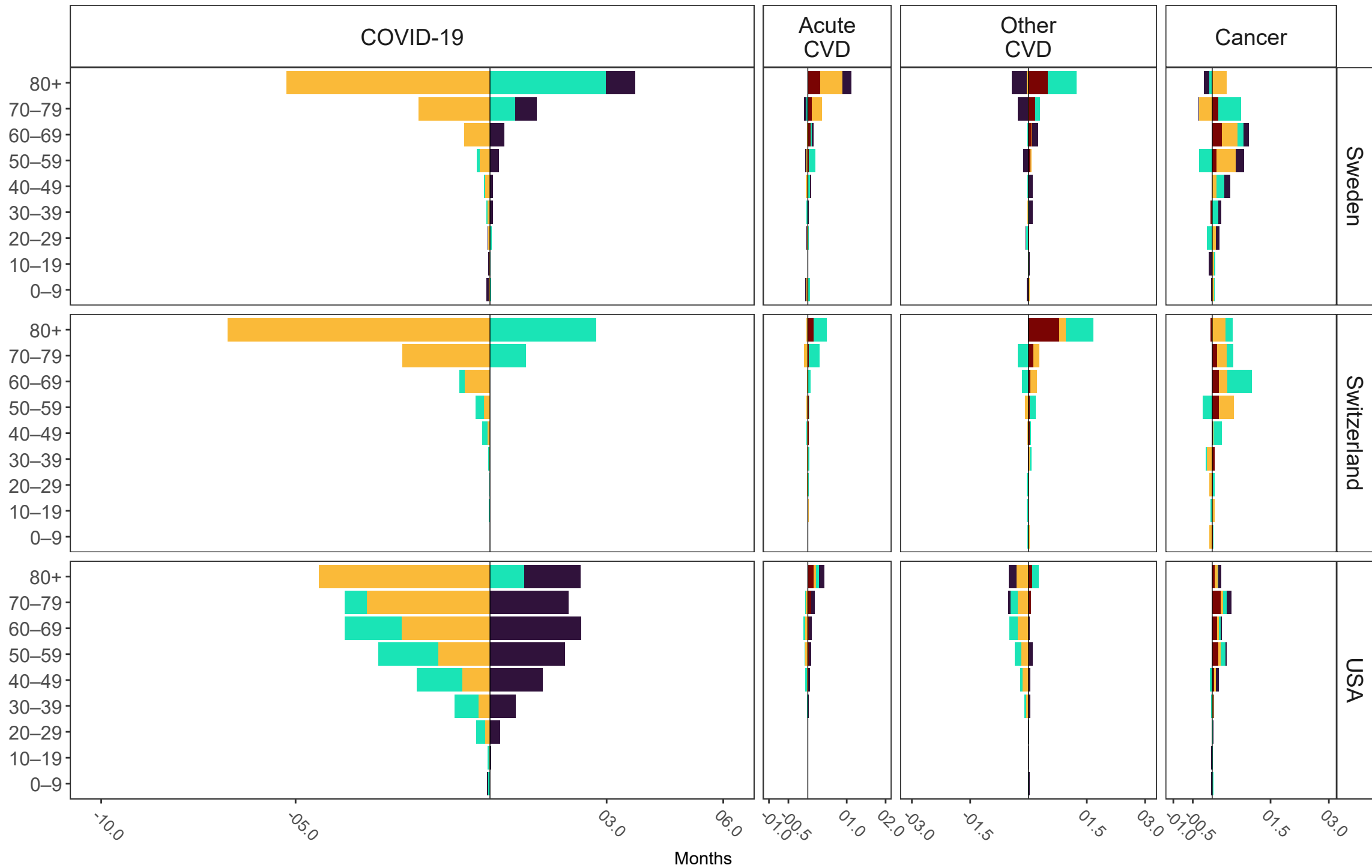


Figure S7w

Contributions to changes in female life expectancy
in Sweden, Switzerland, USA

2015–2019 2019–2020 2020–2021 2021–2022

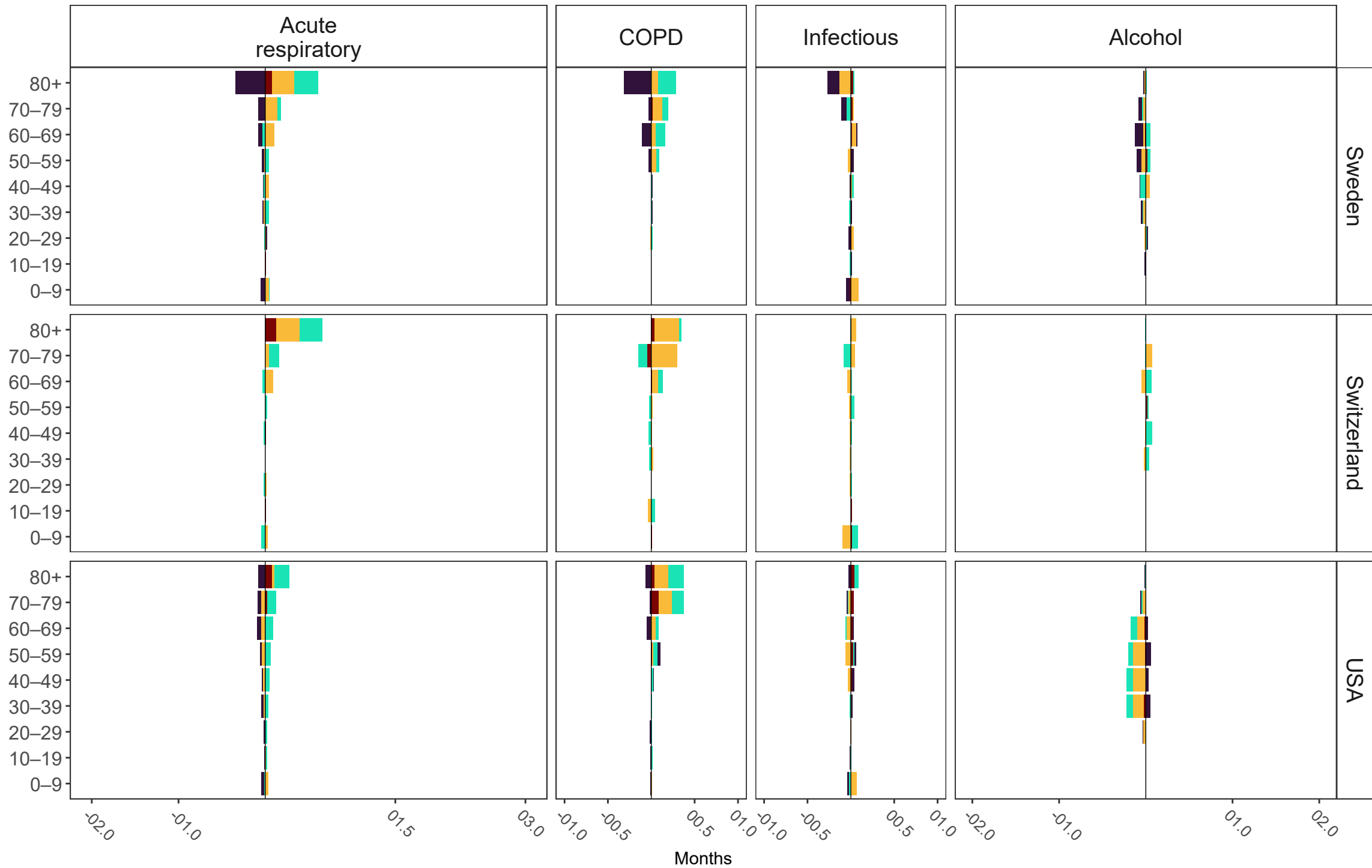


Figure S7x

Contributions to changes in female life expectancy
in Sweden, Switzerland, USA

2015–2019 2019–2020 2020–2021 2021–2022

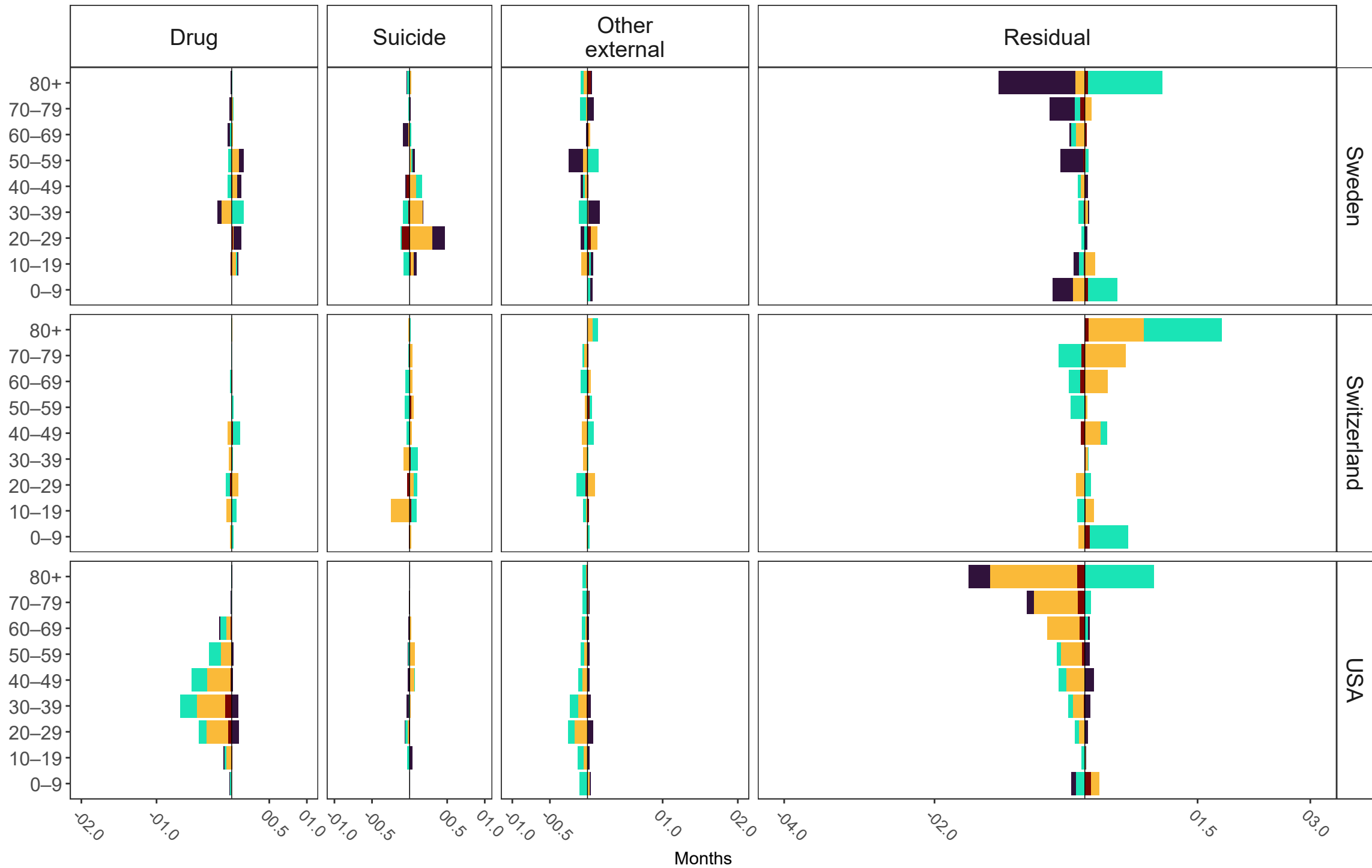


Figure S8a

Contributions to changes in male life expectancy
in Australia, Austria, Brazil

2015–2019 2019–2020 2020–2021 2021–2022

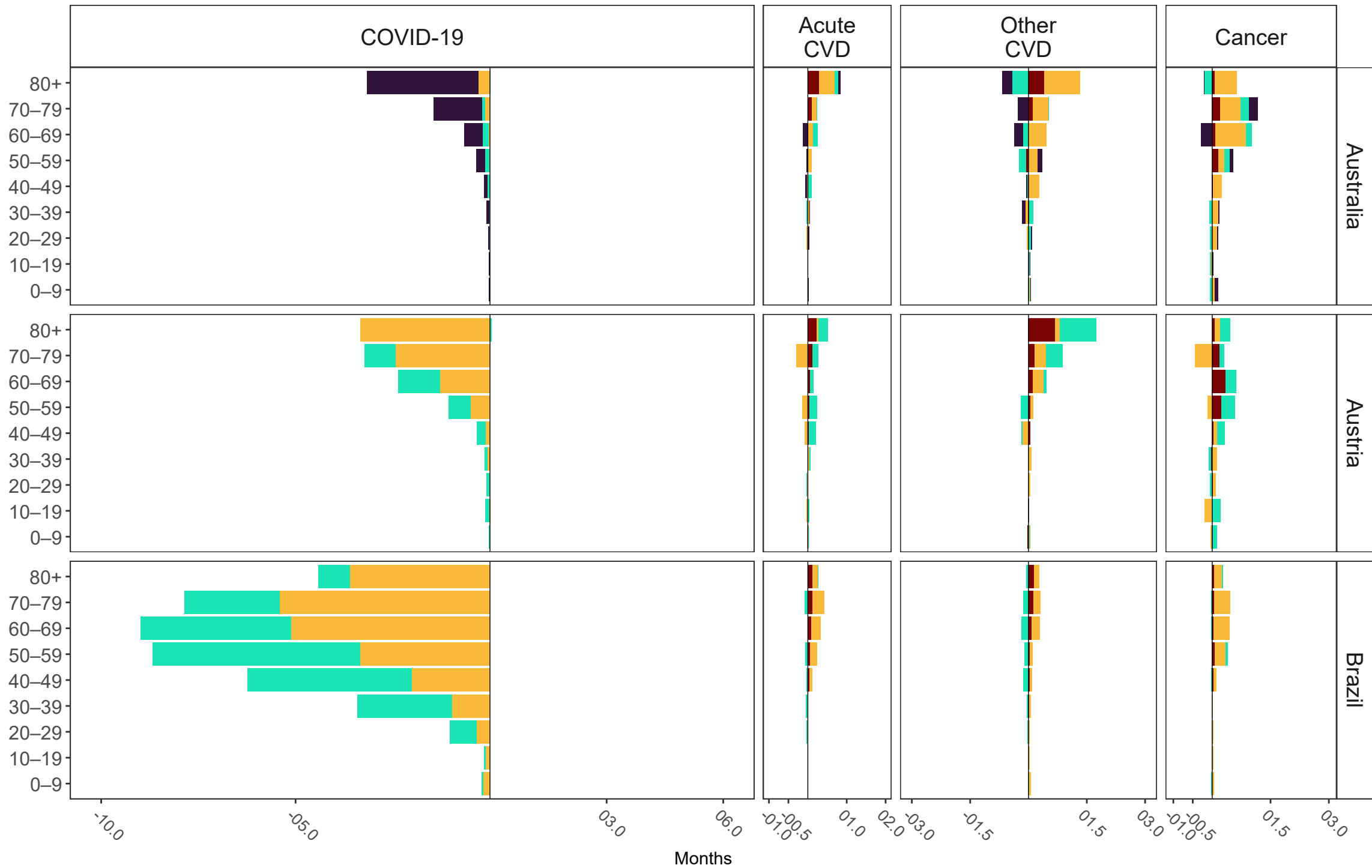


Figure S8b

Contributions to changes in male life expectancy
in Australia, Austria, Brazil

2015–2019 2019–2020 2020–2021 2021–2022

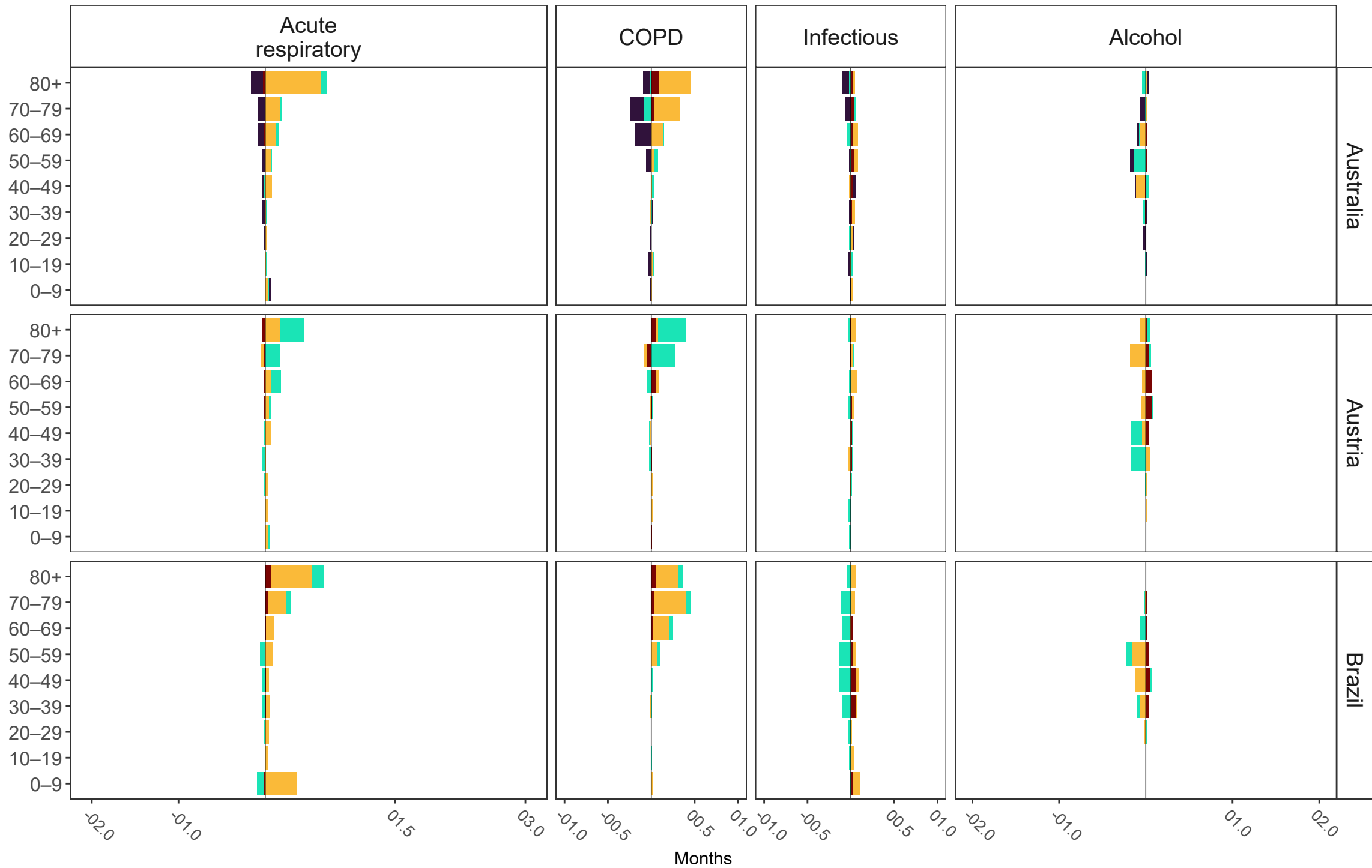


Figure S8c

Contributions to changes in male life expectancy
in Australia, Austria, Brazil

2015–2019 2019–2020 2020–2021 2021–2022

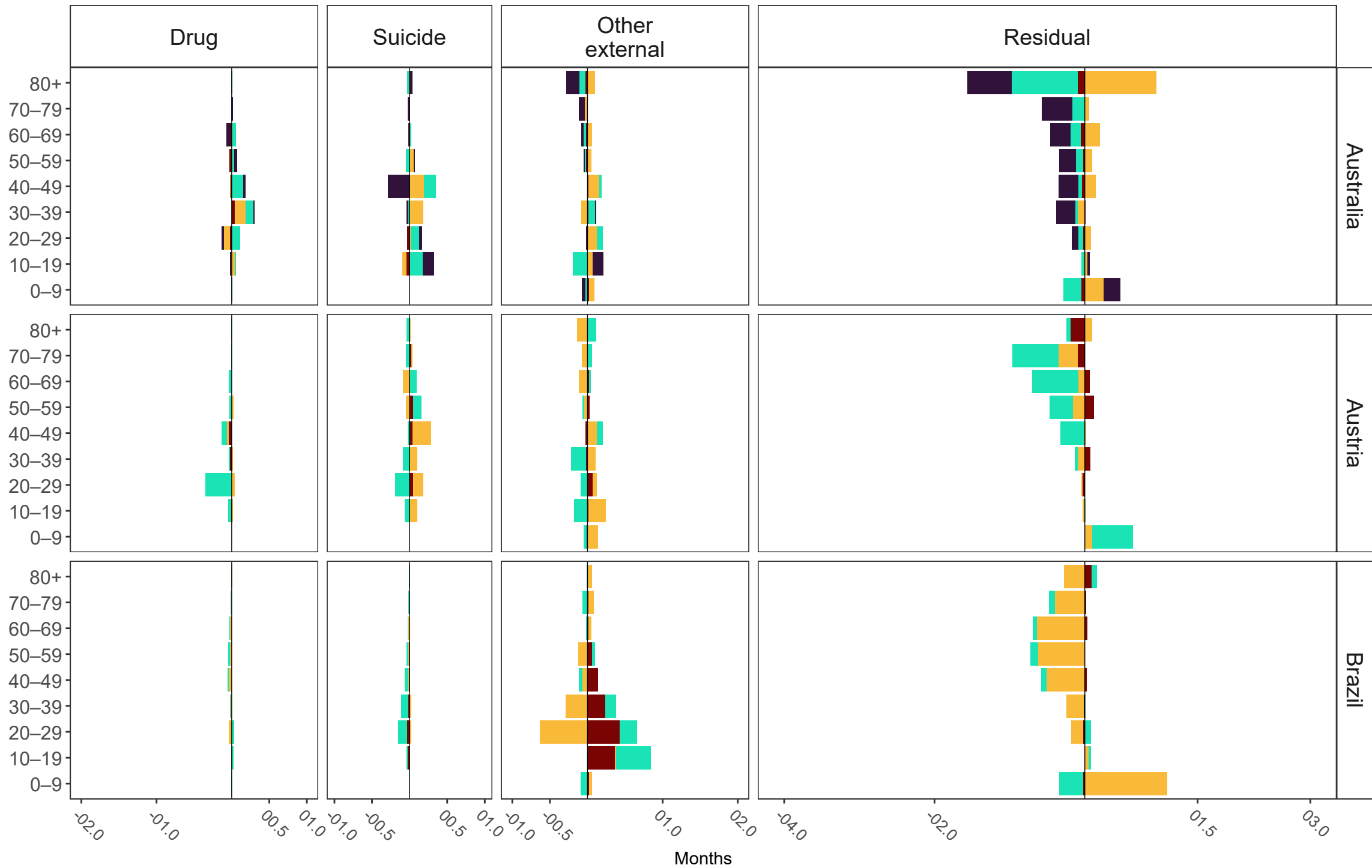


Figure S8d

Contributions to changes in male life expectancy
in Bulgaria, Canada, Chile

2015–2019 2019–2020 2020–2021 2021–2022

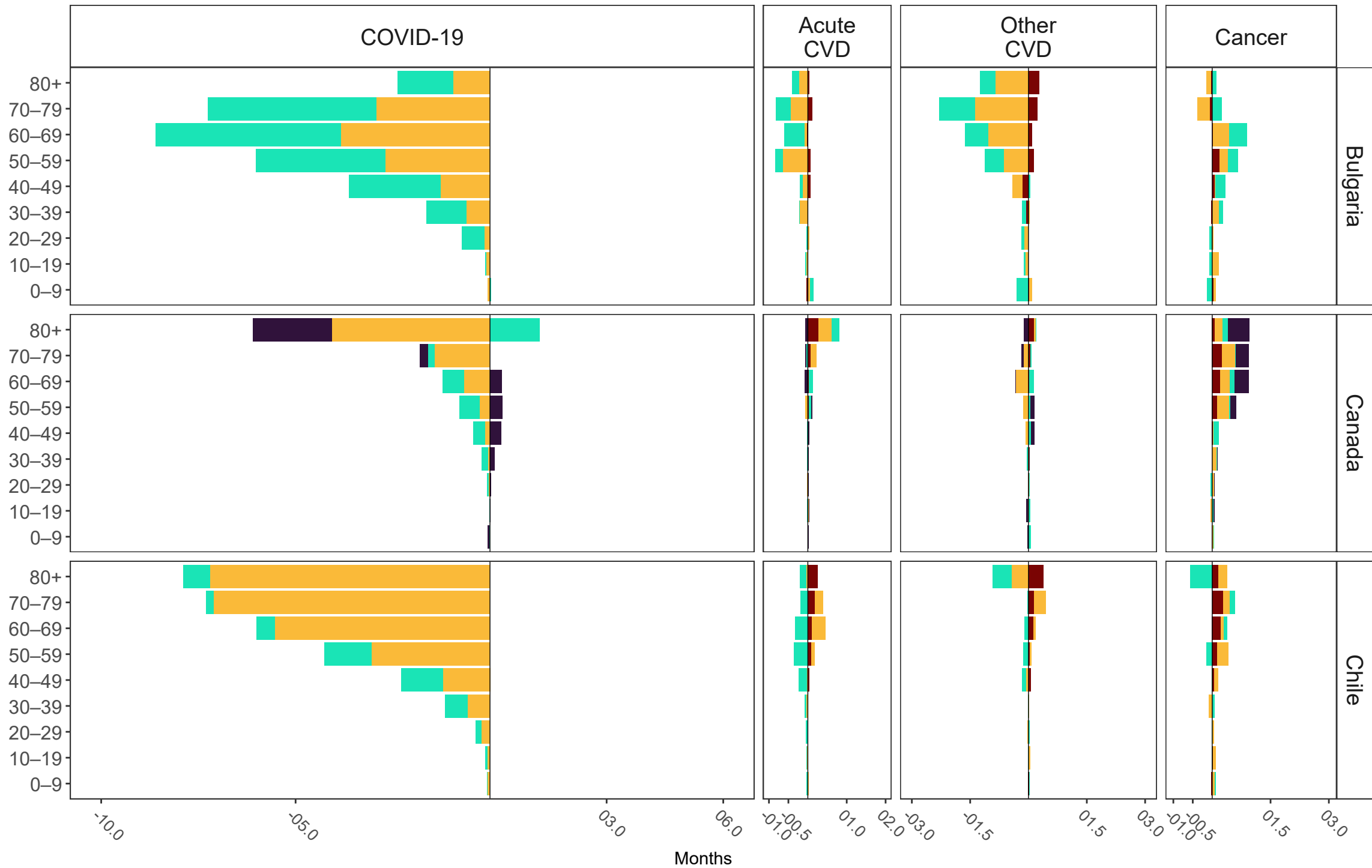


Figure S8e

Contributions to changes in male life expectancy
in Bulgaria, Canada, Chile

2015–2019 2019–2020 2020–2021 2021–2022

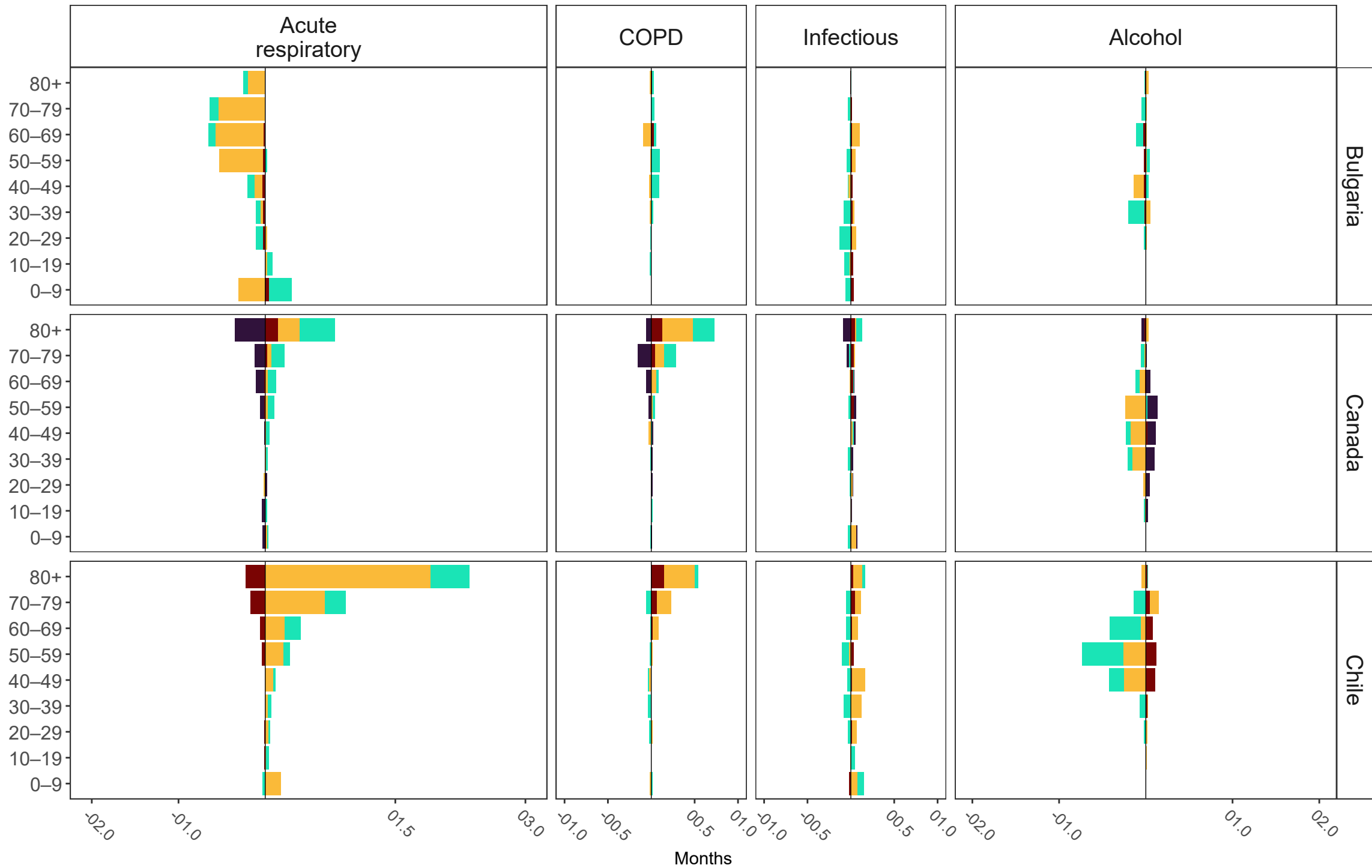


Figure S8f

Contributions to changes in male life expectancy
in Bulgaria, Canada, Chile

2015–2019 2019–2020 2020–2021 2021–2022

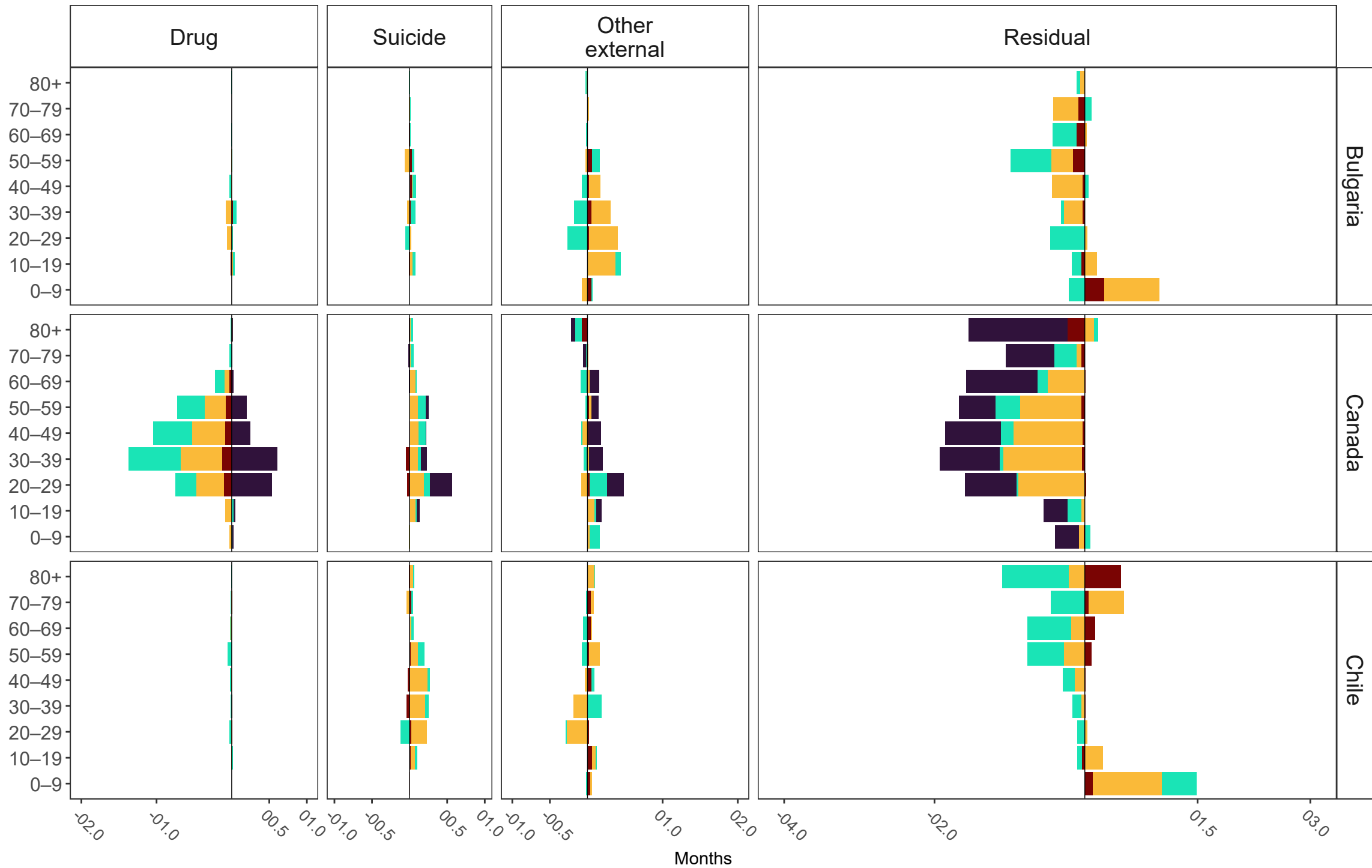


Figure S8g

Contributions to changes in male life expectancy
in Croatia, Czechia, Denmark

2015–2019 2019–2020 2020–2021

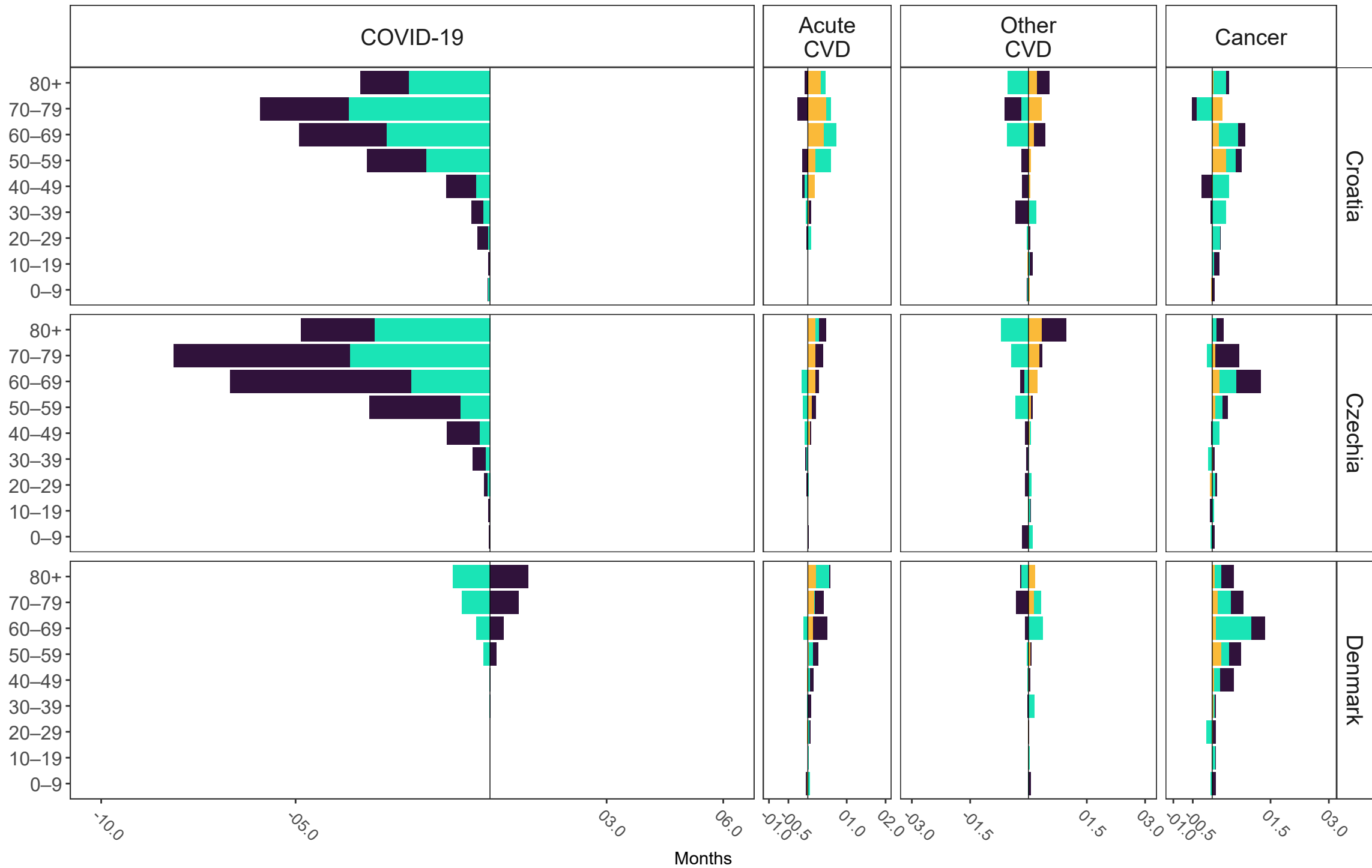


Figure S8h

Contributions to changes in male life expectancy
in Croatia, Czechia, Denmark

2015–2019 2019–2020 2020–2021

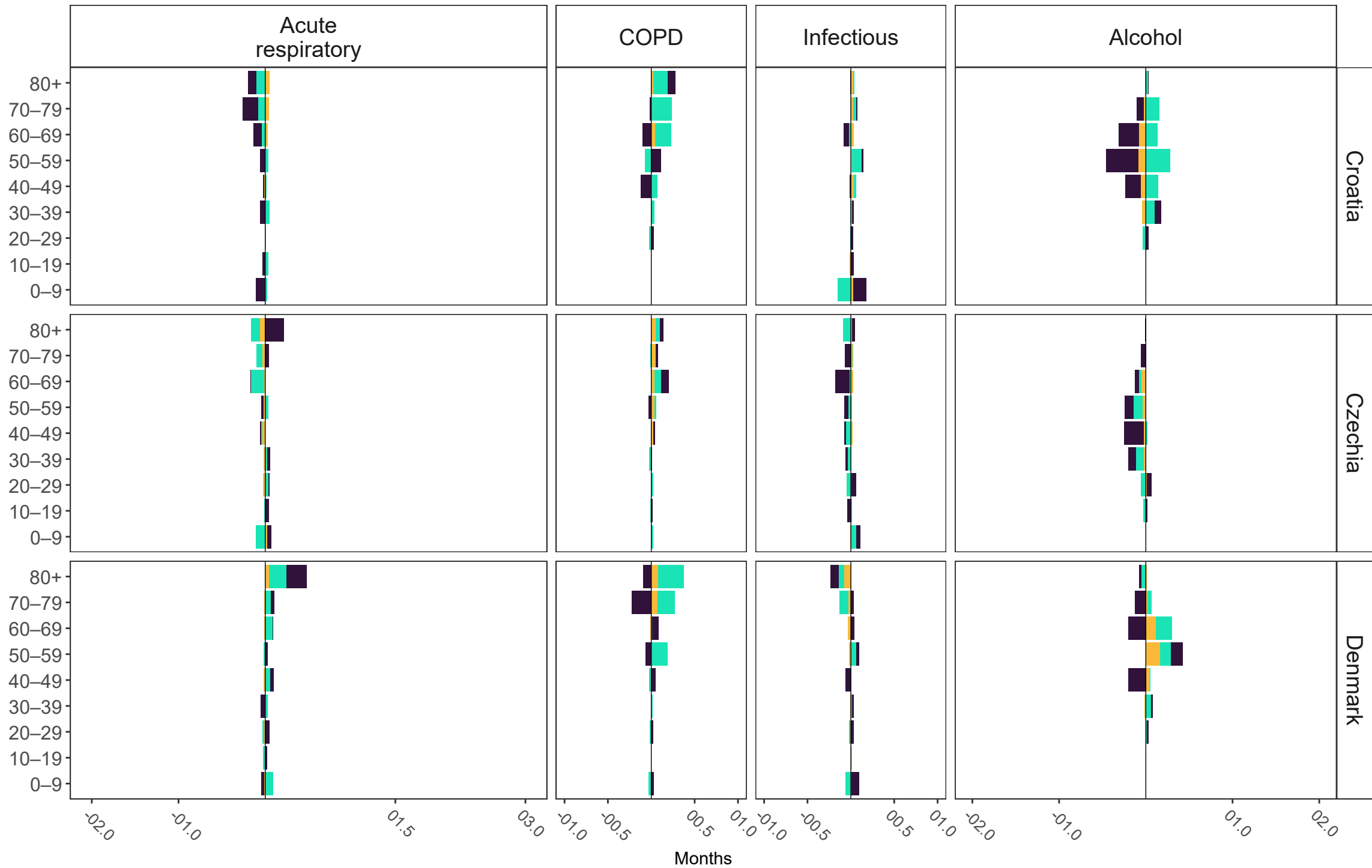


Figure S8i

Contributions to changes in male life expectancy
in Croatia, Czechia, Denmark

2015–2019 2019–2020 2020–2021

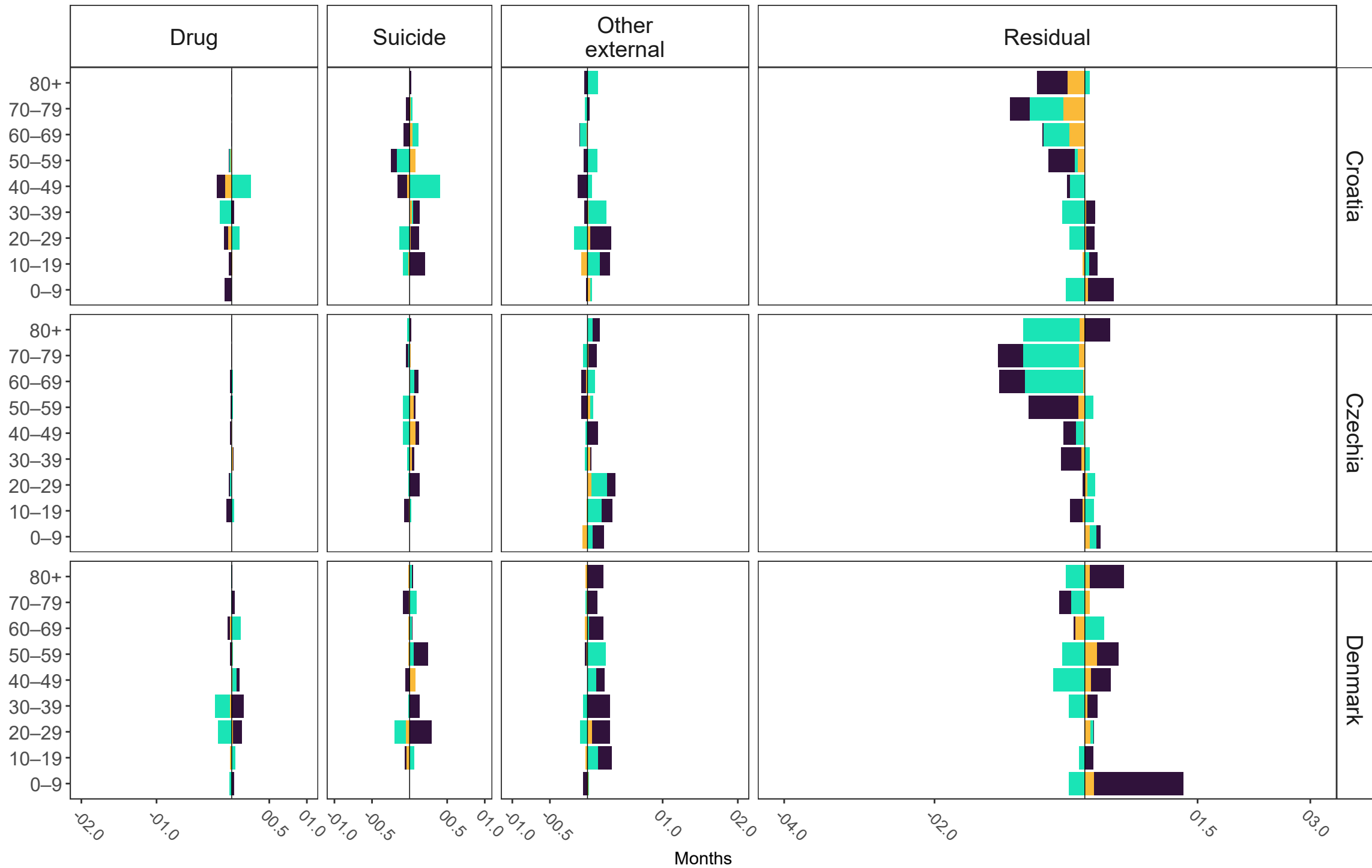


Figure S8j

Contributions to changes in male life expectancy
in England & Wales, Hungary, Japan

2015–2019 2019–2020 2020–2021 2021–2022

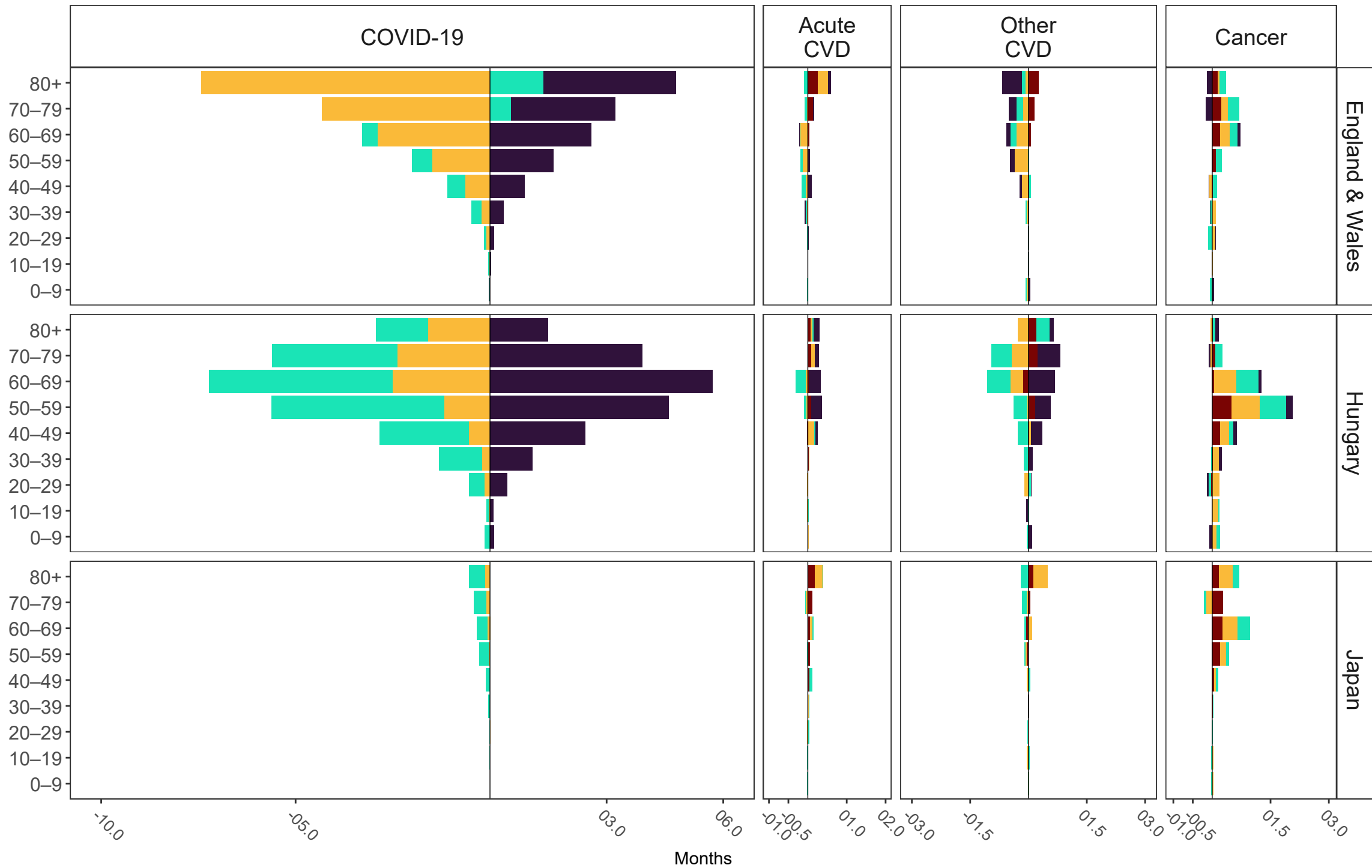


Figure S8k

Contributions to changes in male life expectancy
in England & Wales, Hungary, Japan

2015–2019 2019–2020 2020–2021 2021–2022

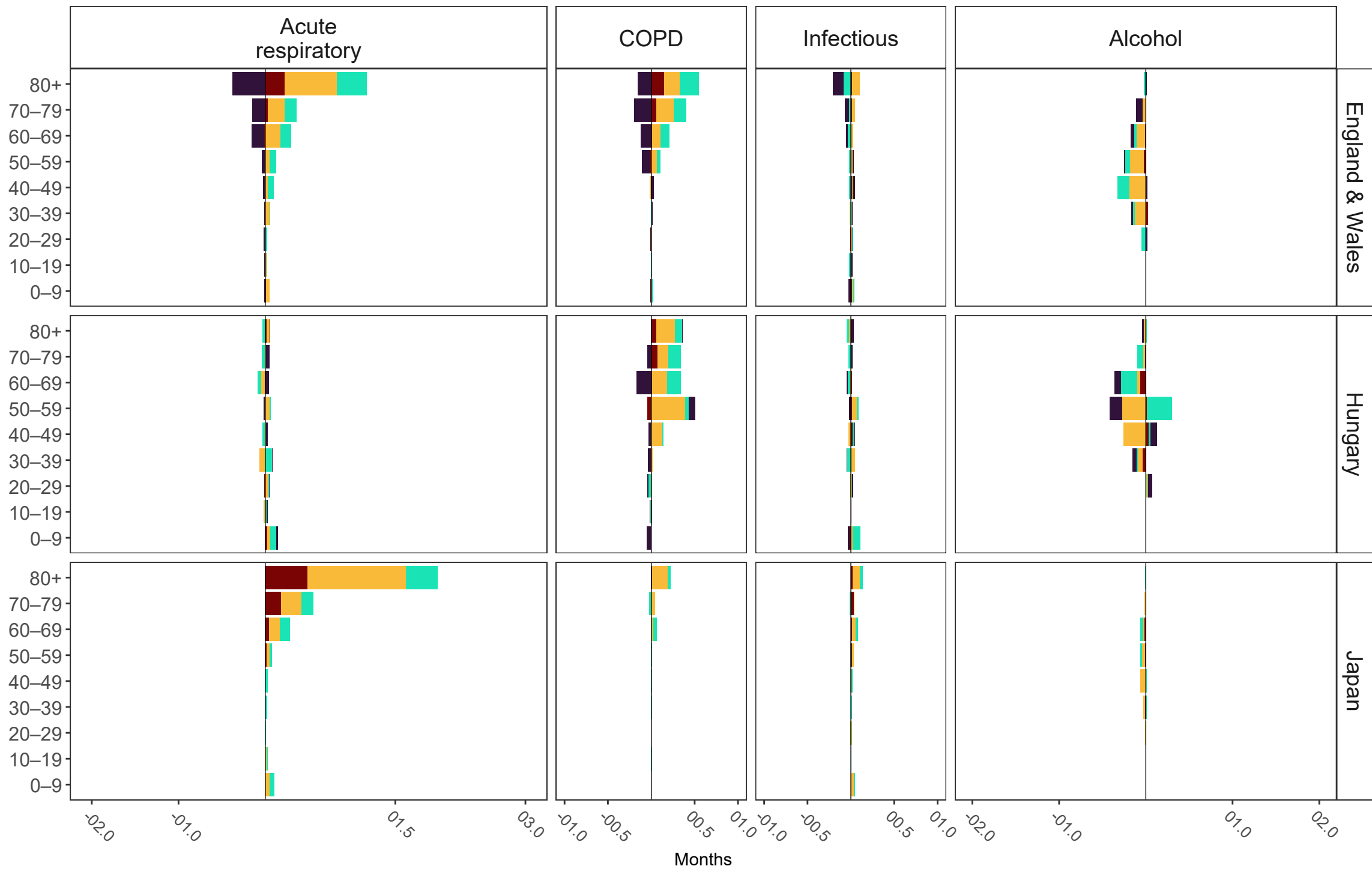


Figure S8I

Contributions to changes in male life expectancy
in England & Wales, Hungary, Japan

2015–2019 2019–2020 2020–2021 2021–2022

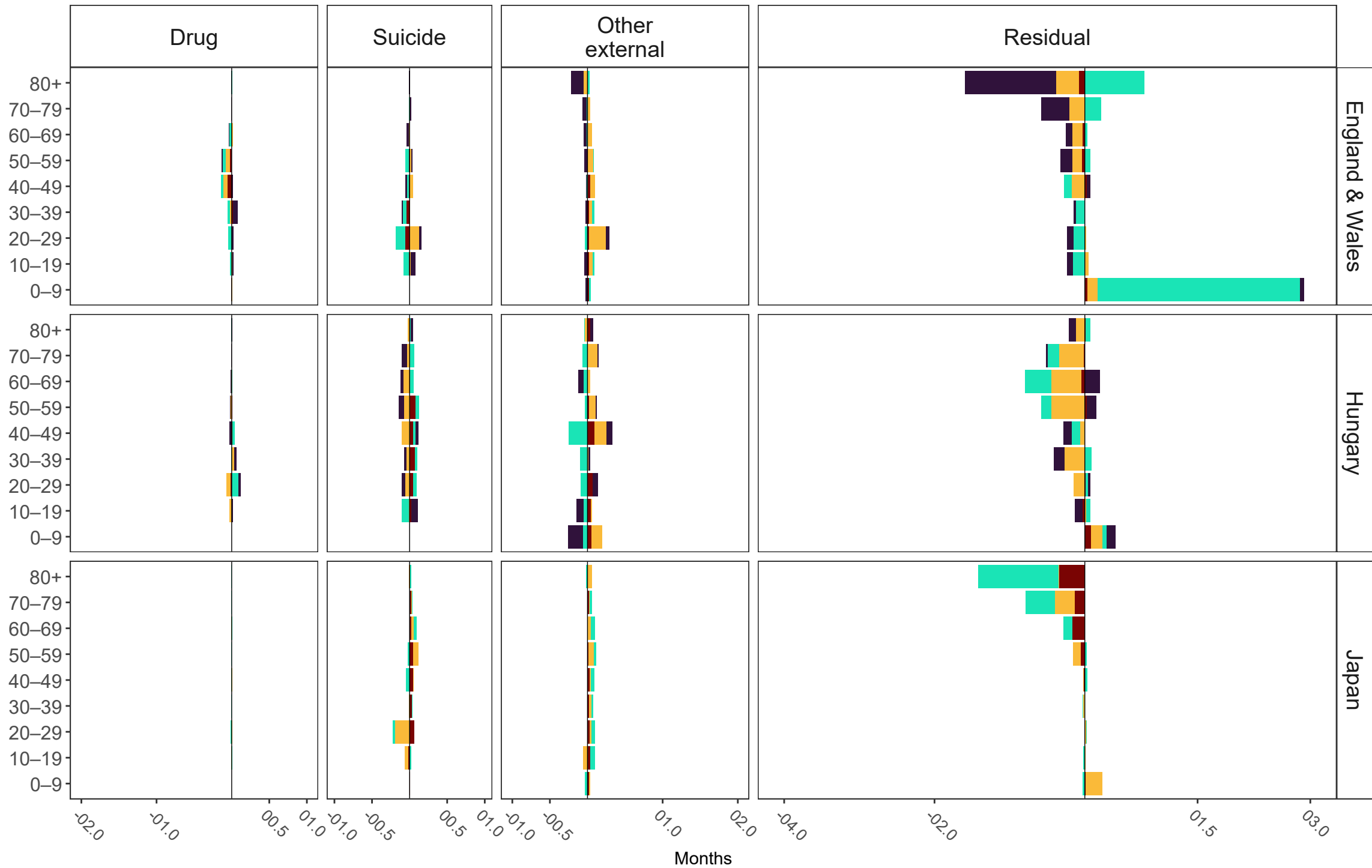


Figure S8m

Contributions to changes in male life expectancy
in Latvia, Lithuania, Netherlands

2015–2019 2019–2020 2020–2021 2021–2022

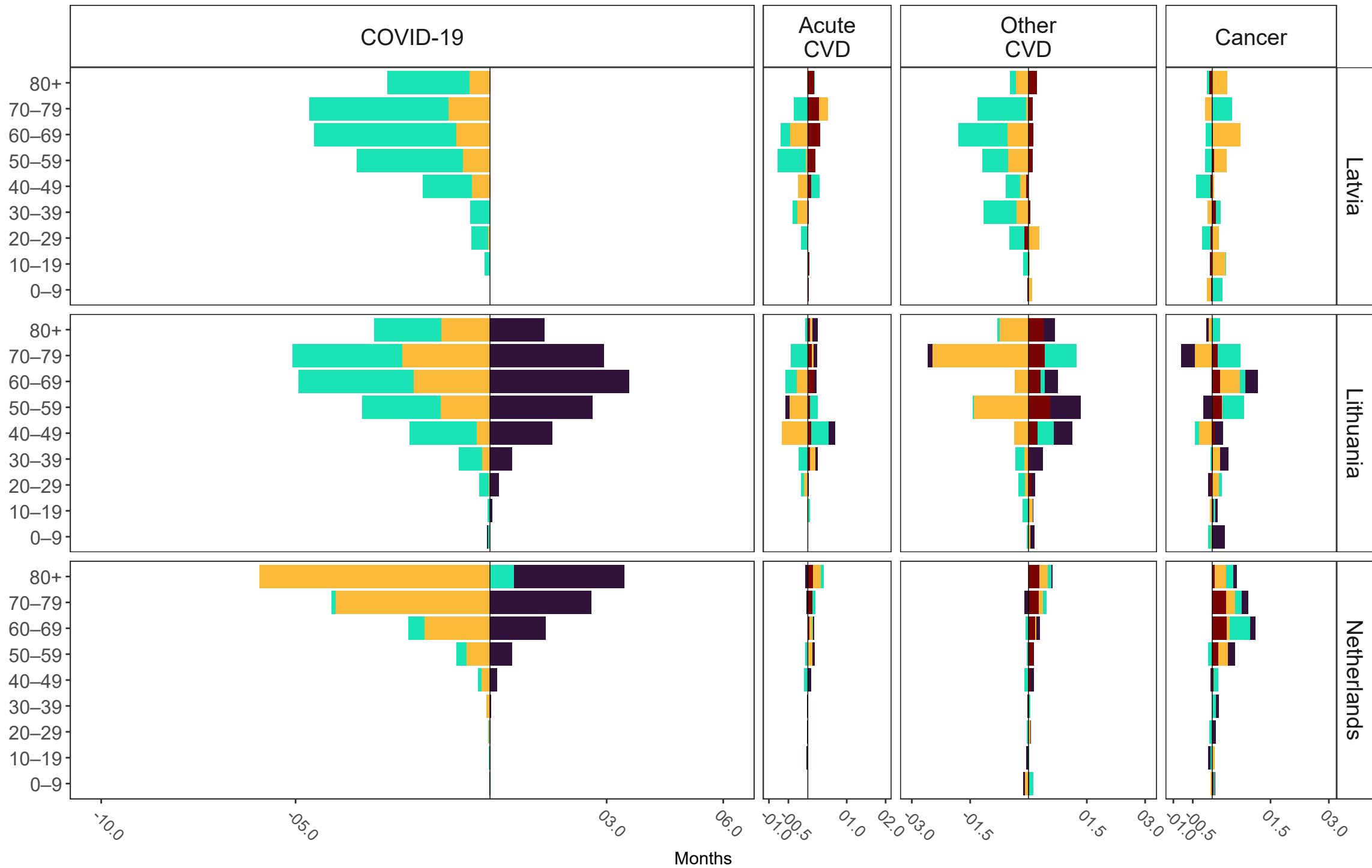


Figure S8n

Contributions to changes in male life expectancy
in Latvia, Lithuania, Netherlands

2015–2019 2019–2020 2020–2021 2021–2022

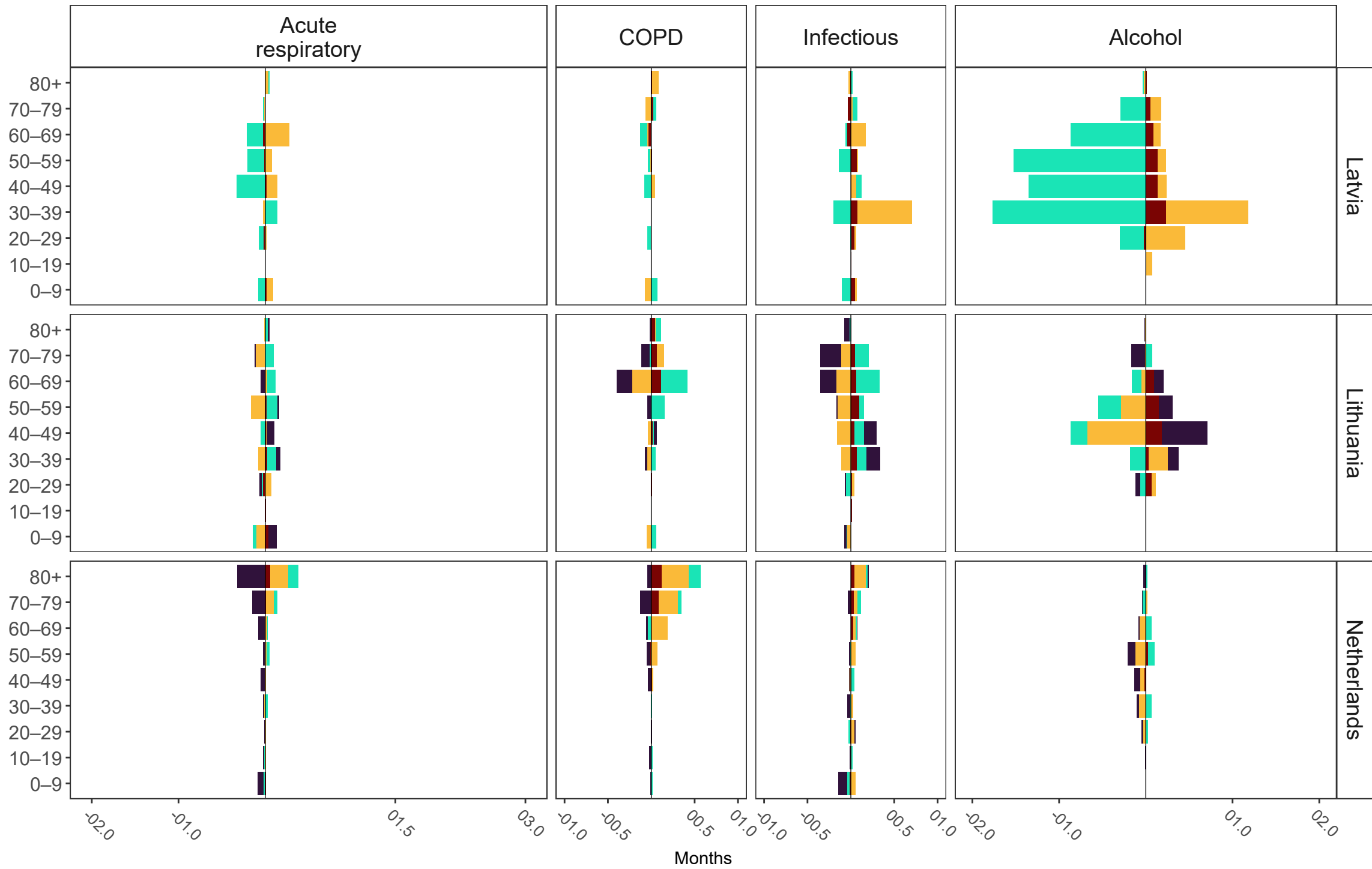


Figure S8o

Contributions to changes in male life expectancy
in Latvia, Lithuania, Netherlands

2015–2019 2019–2020 2020–2021 2021–2022

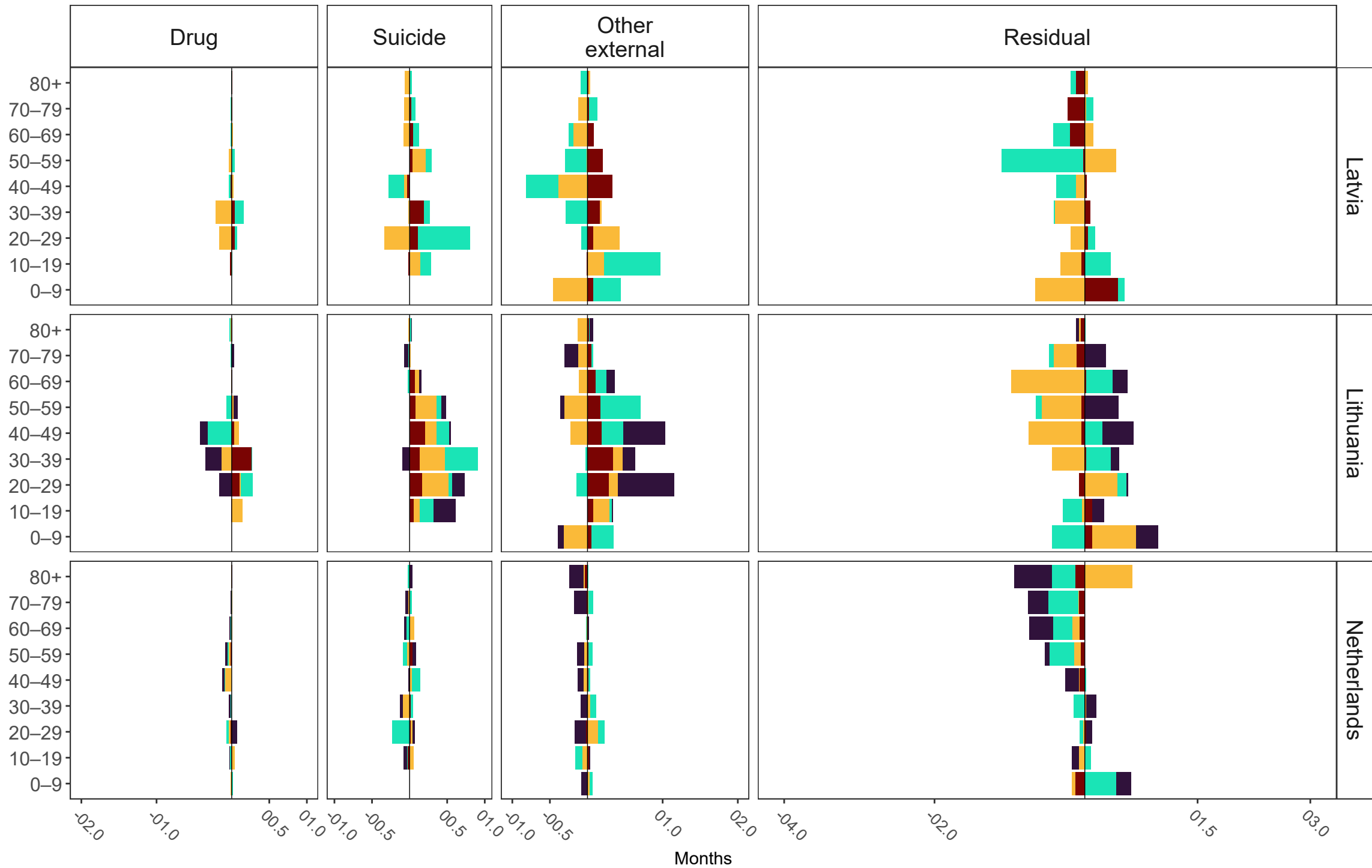


Figure S8p

Contributions to changes in male life expectancy
in N. Ireland, Poland, Russia

2015–2019 2019–2020 2020–2021

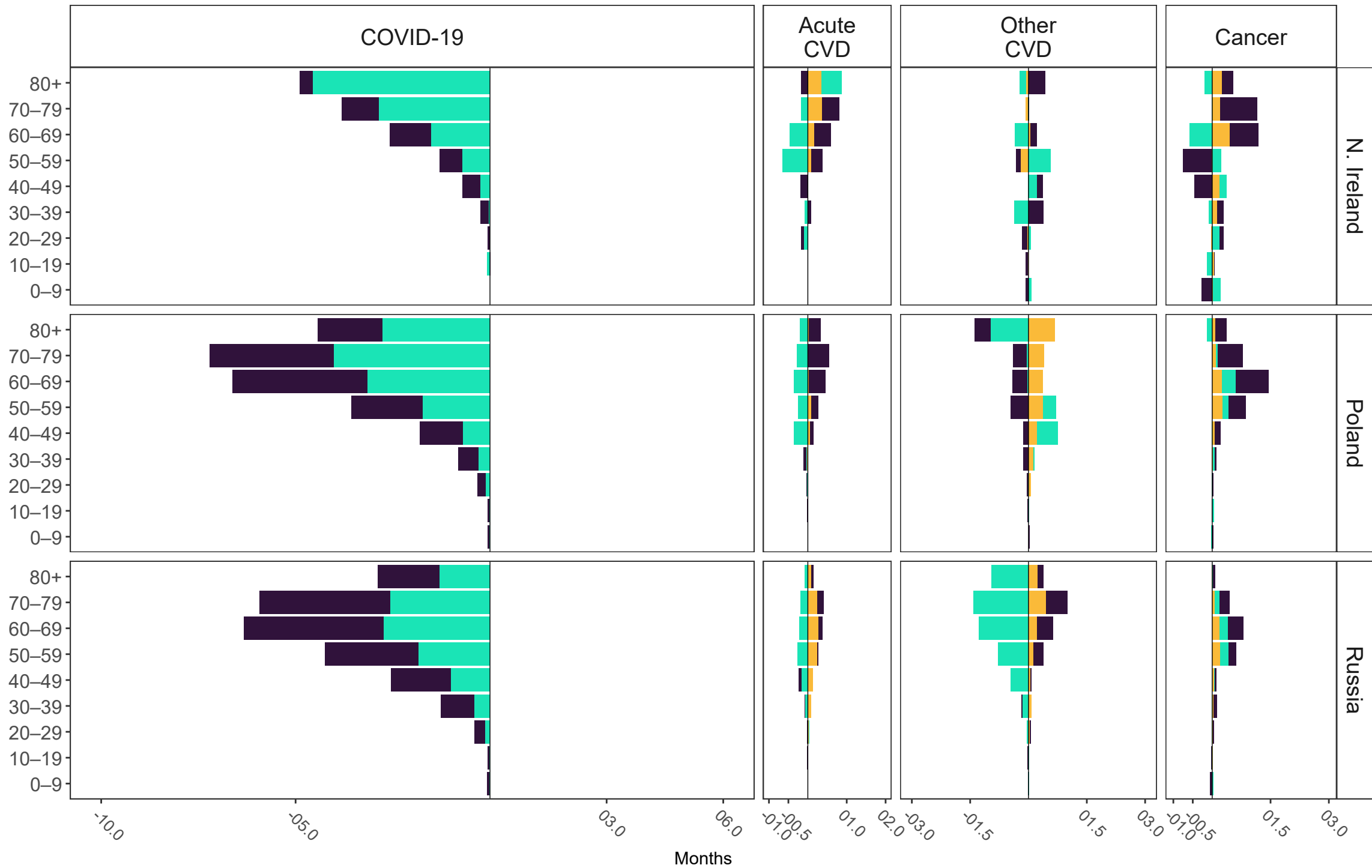


Figure S8q

Contributions to changes in male life expectancy
in N. Ireland, Poland, Russia

2015–2019 2019–2020 2020–2021

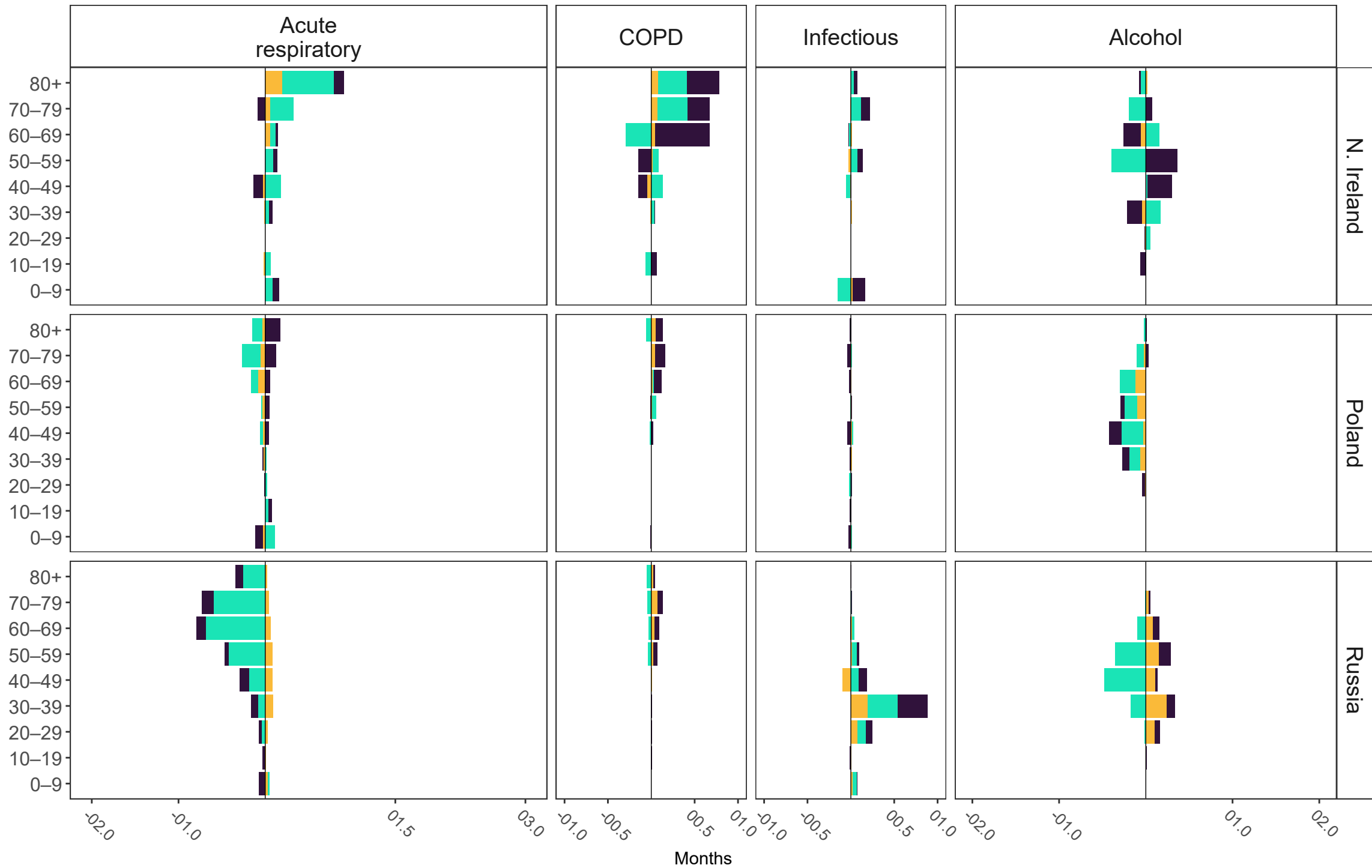


Figure S8r

Contributions to changes in male life expectancy
in N. Ireland, Poland, Russia

2015–2019 2019–2020 2020–2021

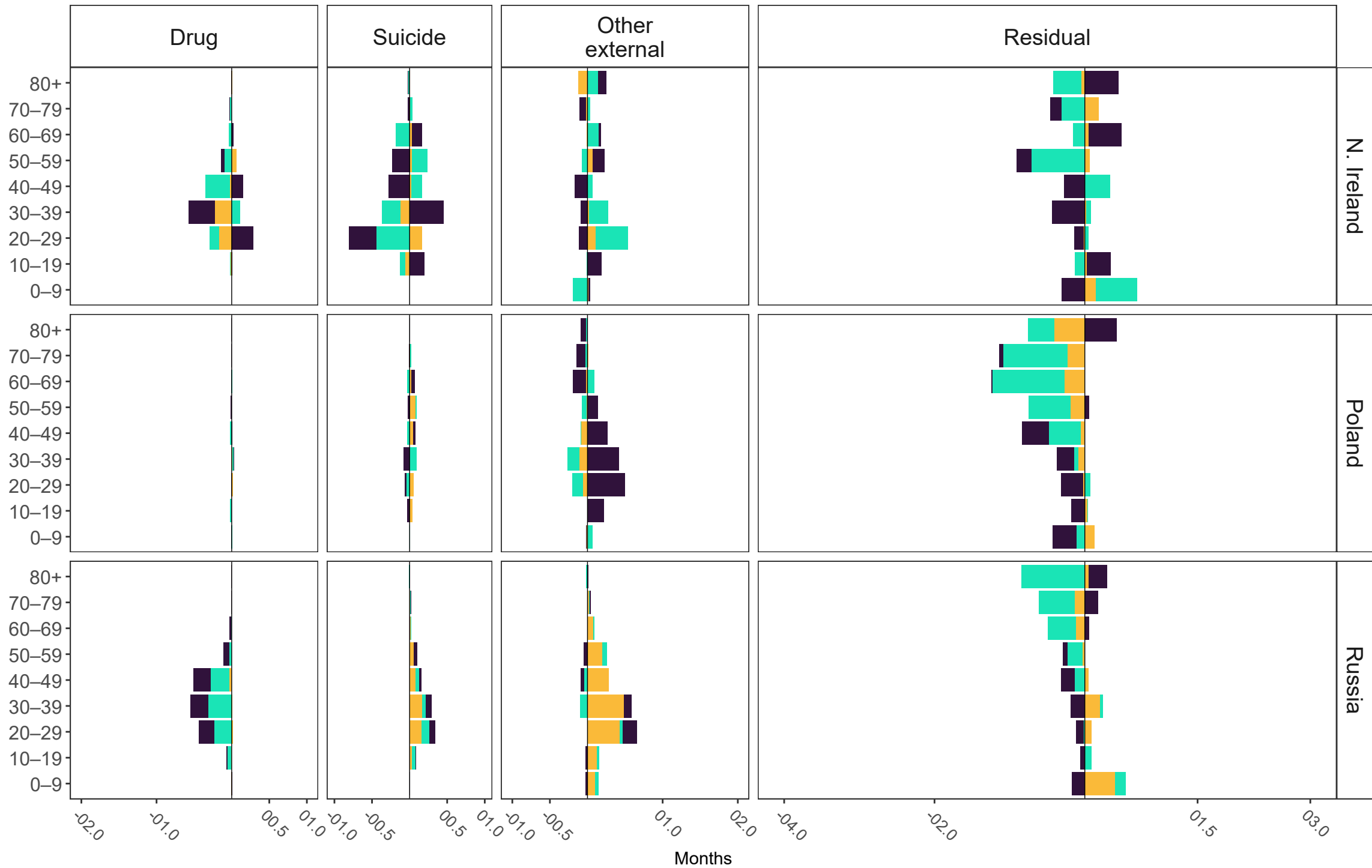


Figure S8s

Contributions to changes in male life expectancy
in Scotland, South Korea, Spain

2015–2019 2019–2020 2020–2021

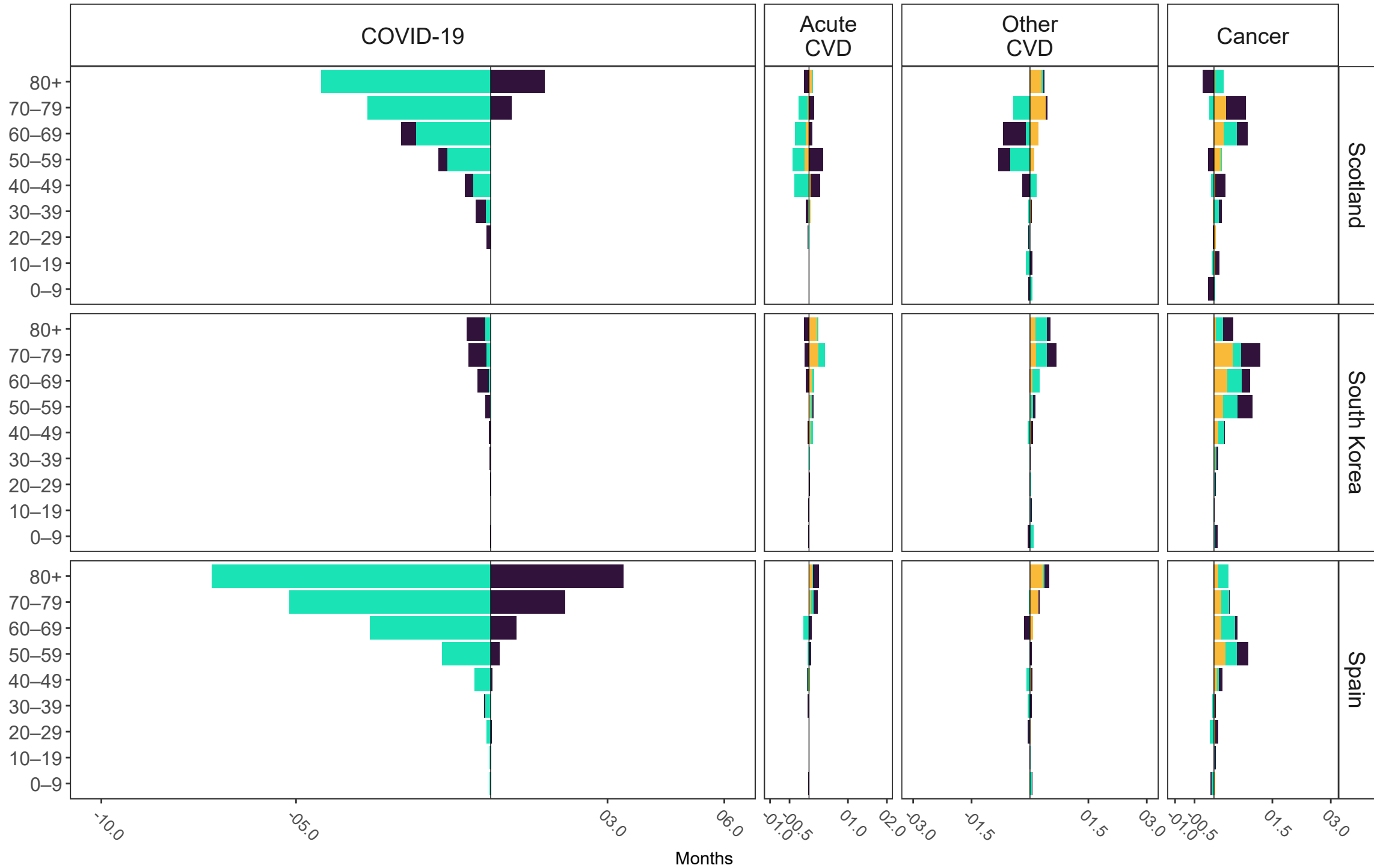


Figure S8t

Contributions to changes in male life expectancy
in Scotland, South Korea, Spain

2015–2019 2019–2020 2020–2021

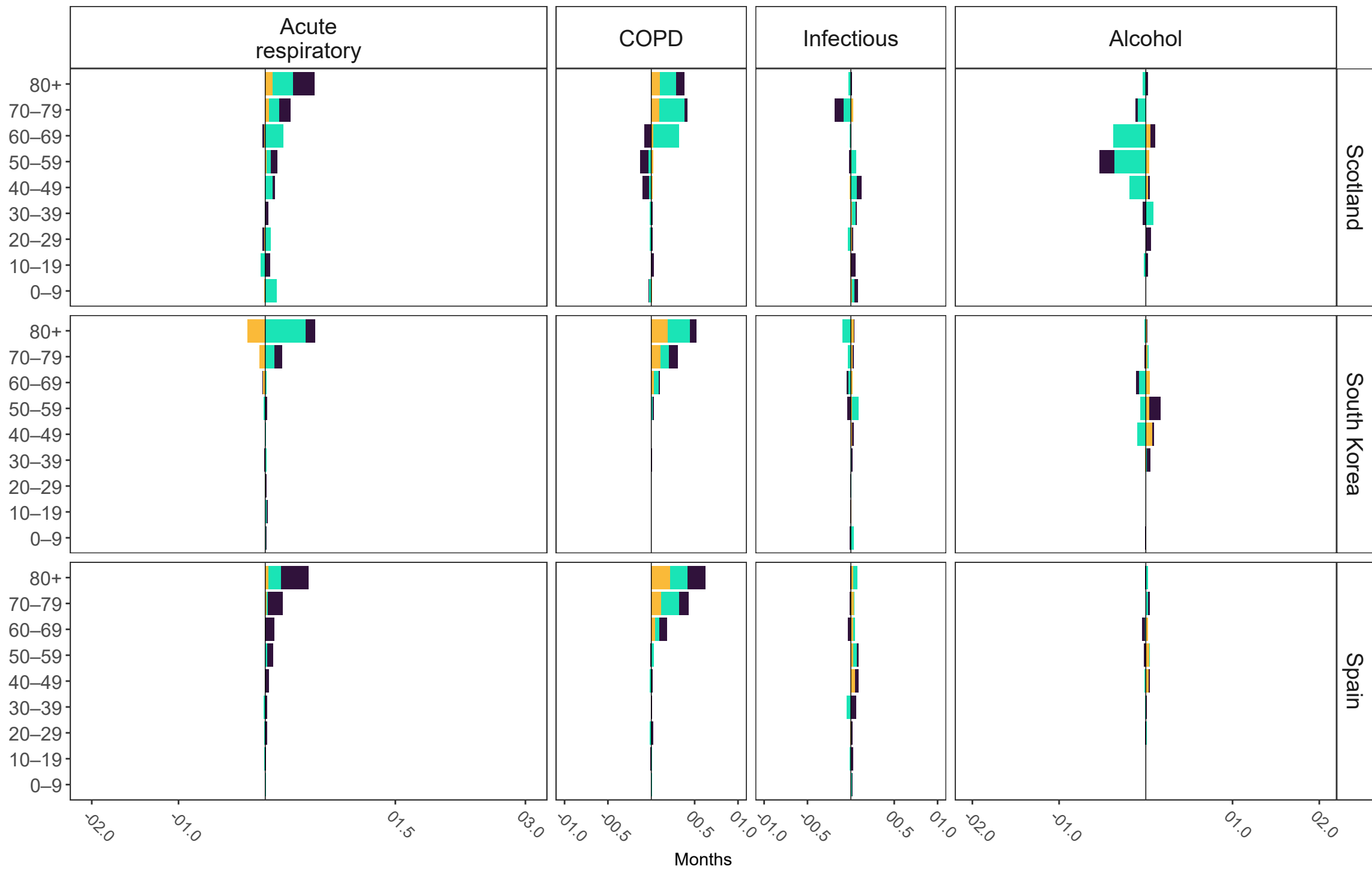


Figure S8u

Contributions to changes in male life expectancy
in Scotland, South Korea, Spain

2015–2019 2019–2020 2020–2021

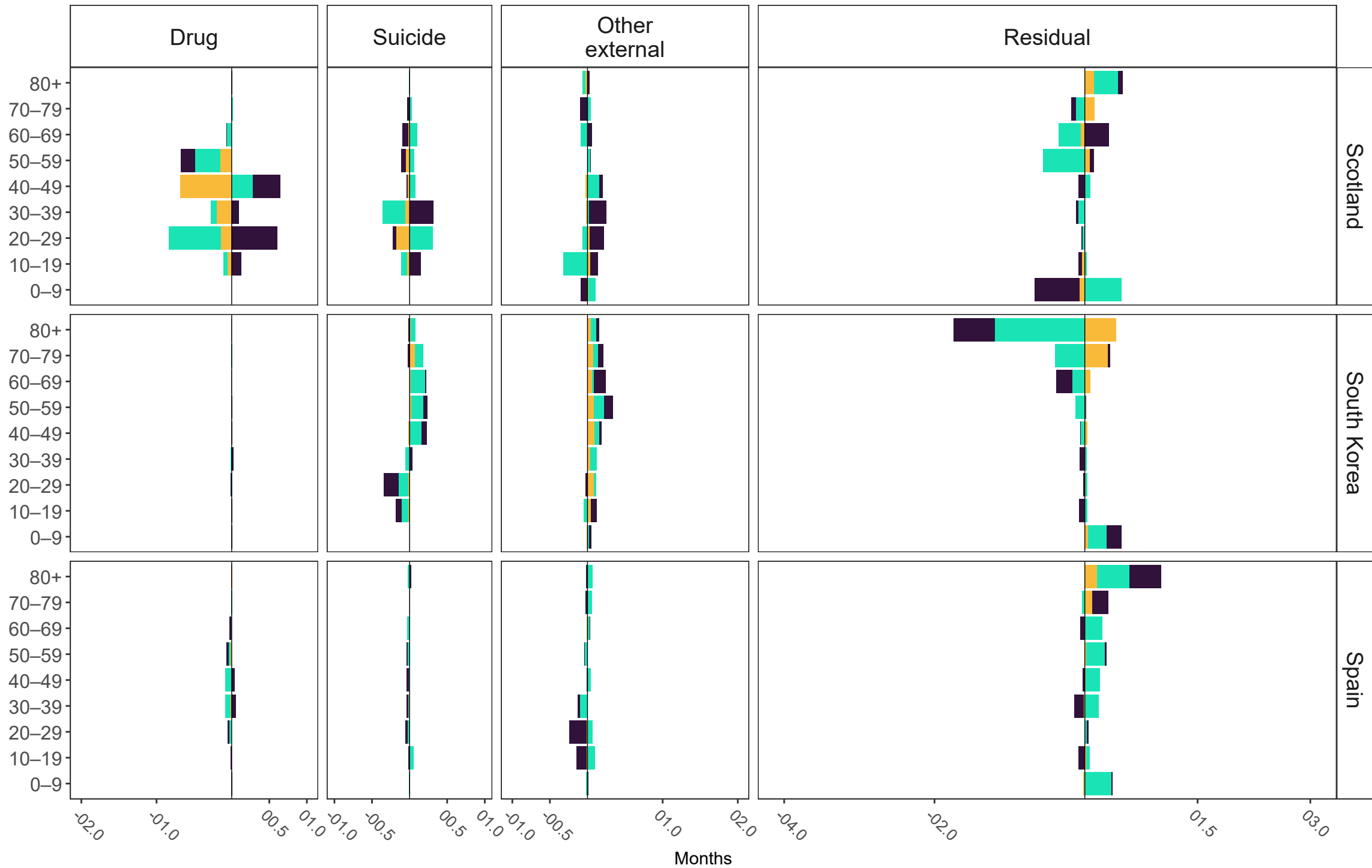


Figure S8v

Contributions to changes in male life expectancy
in Sweden, Switzerland, USA

2015–2019 2019–2020 2020–2021 2021–2022

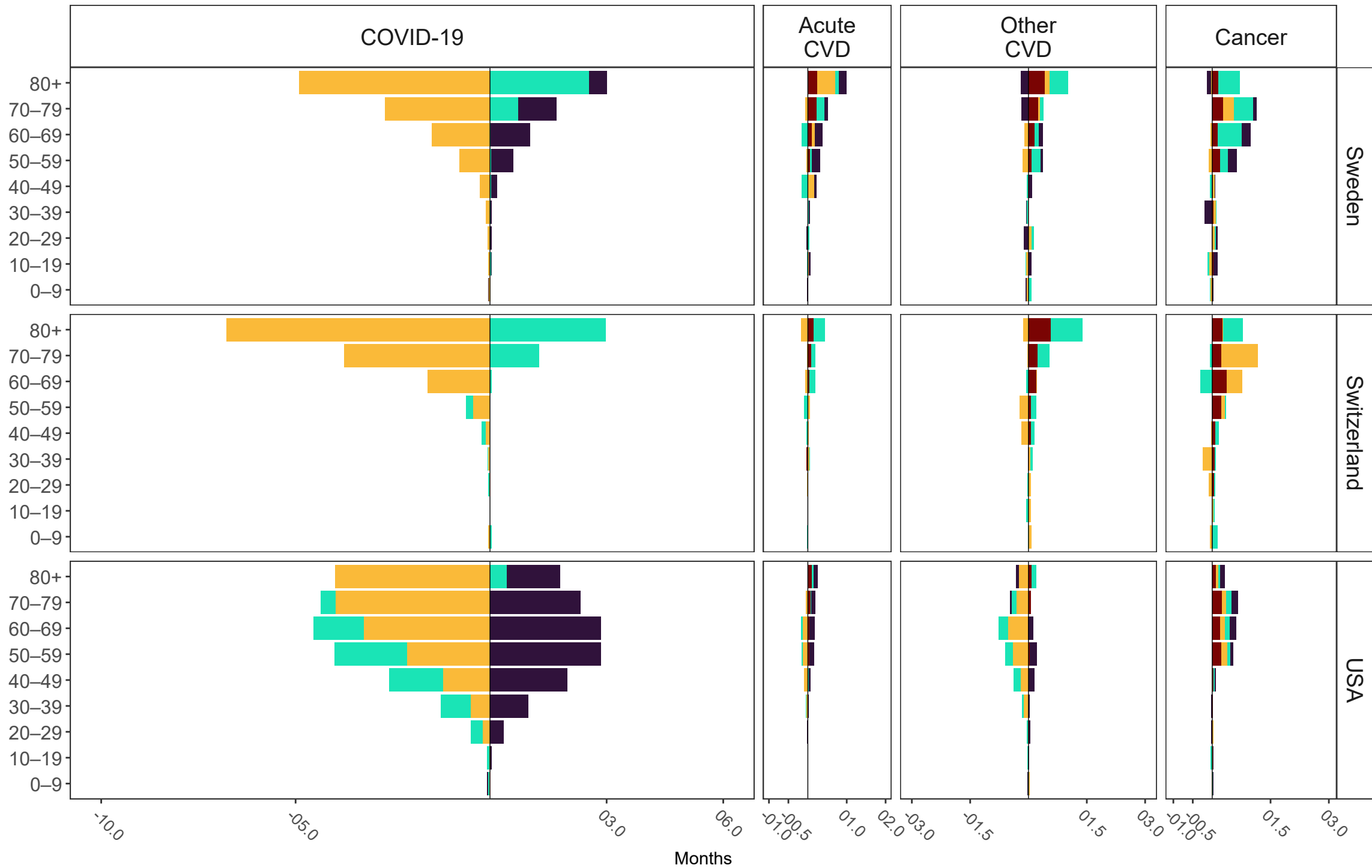


Figure S8w

Contributions to changes in male life expectancy
in Sweden, Switzerland, USA

2015–2019 2019–2020 2020–2021 2021–2022

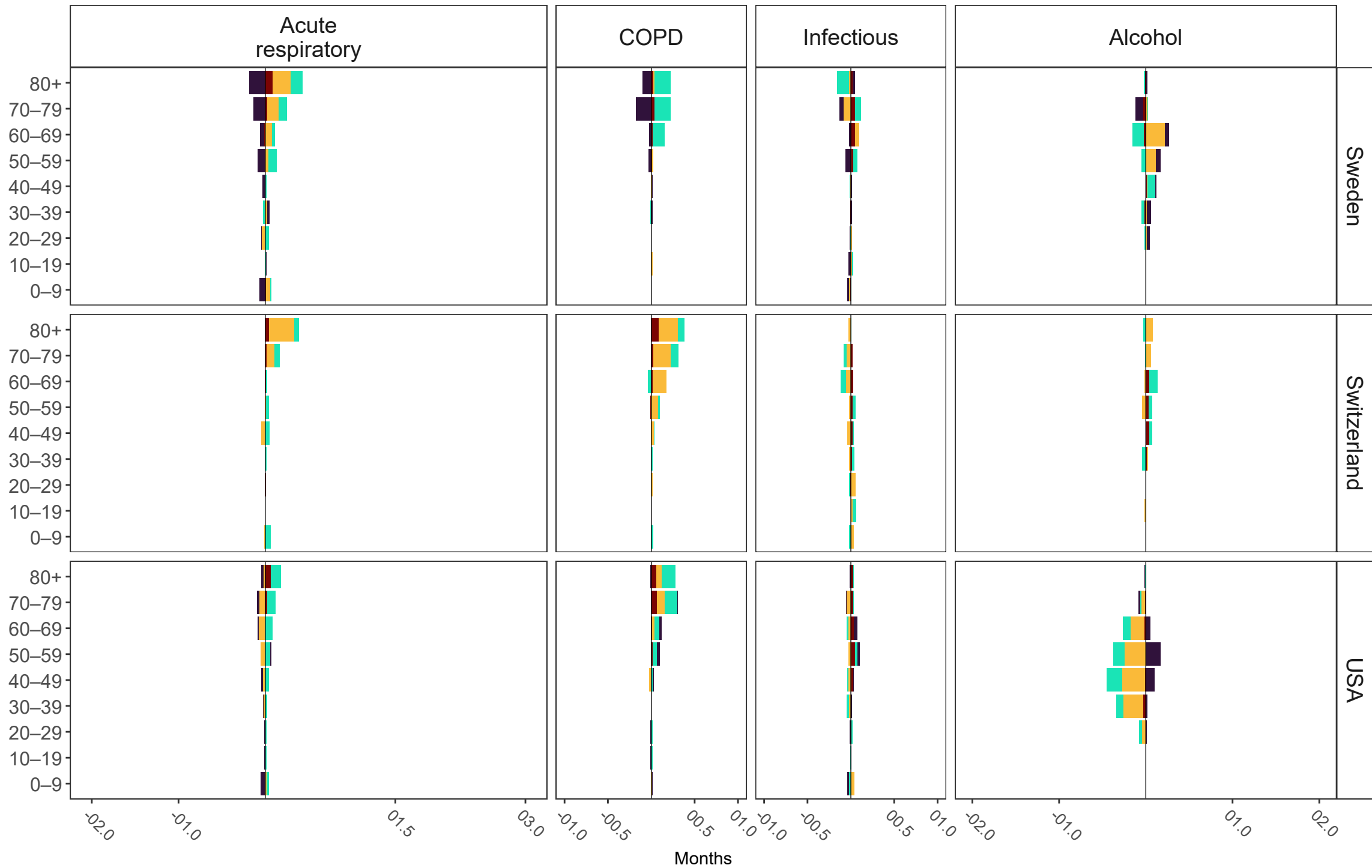


Figure S8x

Contributions to changes in male life expectancy
in Sweden, Switzerland, USA

2015–2019 2019–2020 2020–2021 2021–2022

