# "A crisis like no other? Unmet needs in health care during the first wave of the COVID-19 crisis in Austria" by Schmidt, Rodrigues, Simmons and Steiber

# Summary

- Data: a representative (population) survey in June 2020 of 2000 Austrians, and data from Austrian portion of the European Social Survey in 2015.

- Outcomes: Subjective Unmet Need (SUN) in health care compared between 2015 and 2020 and analysis of the determinants of SUN in 2020.

- Covariates: education/labour market status/ age/SAH, financial situation ("difficult managing")

- Analysis: Multinomial logit analysis of SUN for determinants of different types of SUN

# Results

Table 1: SUN in 2015 and 2020, by selected groups and type of SUN

| | Total SUN 2015 (a) | Total SUN 2020 (b) | | non-COVID-19 SUN 2020 (c) | | Excess SUN COVID-19 (b)-(c) |
|---|---|---|---|---|---|---|
| | % | % | p-value (b)-(a) | % | p-value (c)-(a) | p.p. |
| Total population | 5.90 | 20.07 | <0.001 | 3.99 | 0.026 | 16.08 |
| Education | | | | | | |
| Primary | 4.89 | 20.74 | <0.001 | 7.14 | 0.406 | 13.60 |
| Secondary | 6.24 | 21.55 | <0.001 | 3.65 | 0.012 | 17.90 |
| Tertiary | 6.05 | 16.95 | <0.001 | 3.27 | 0.062 | 13.68 |
| Labour market | | | | | | |
| Employment | 4.66 | 16.65 | <0.001 | 3.46 | 0.178 | 13.19 |
| Unemployment | 11.50 | 25.65 | 0.036 | 7.70 | 0.442 | 17.95 |
| Inactivity | 8.63 | 28.51 | <0.001 | 4.54 | 0.145 | 23.97 |
| Retirement | 3.86 | 36.58 | <0.001 | 4.40 | 0.863 | 32.18 |
| Age groups | | | | | | |
| 20-39 years | 5.79 | 17.49 | <0.001 | 5.20 | 0.673 | 12.29 |
| 40-49 years | 6.38 | 15.24 | 0.001 | 1.91 | 0.001 | 13.33 |
| 50-64 years | 5.68 | 26.35 | <0.001 | 3.87 | 0.199 | 22.48 |
| SRH | | | | | | |
| Good/Very good | 4.72 | 13.41 | <0.001 | 2.16 | 0.003 | 11.25 |
| Poor/Very bad | 12.03 | 37.34 | <0.001 | 8.64 | 0.196 | 28.70 |
| Making ends meet | | | | | | |
| | 5.09 | 17.99 | <0.001 | 3.02 | 0.019 | |
| Comfortable/managing | | | | | | 14.97 |
| Difficult/very difficult | 10.67 | 27.74 | <0.001 | 7.56 | 0.225 | 20.18 |
| Sample size (N) | 1345 | 1970 | | 1970 | | |

Note: weighted values (weight 2 for AKCOVID). P-values for comparison with unmet needs in 2015, using F-test. All results unadjusted.
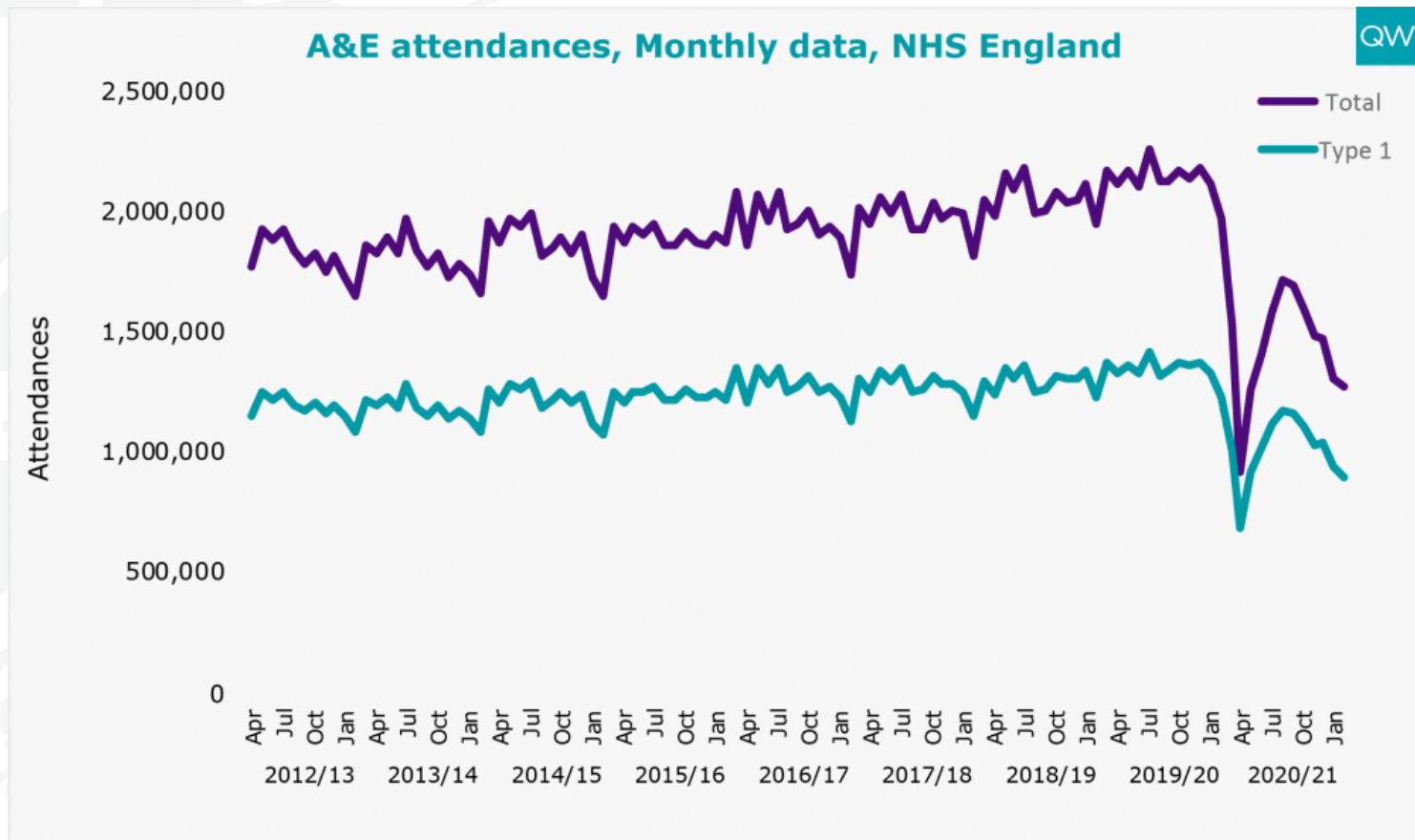
# Results

Table 2: Descriptive statistics

| Variable | Have need and got care | COVID-related barrier: fear of infection | COVID-related barrier: closed provider | COVID-related barrier: treatment postponed | Financial barriers | Other unmet need | No unmet need | No. of observations |
|---|---|---|---|---|---|---|---|---|
| | % (mean) | | | | | | | |
| **Total** | 23,5% | 1,8% | 7,0% | 7,3% | 0,6% | 3,4% | 56,4% | 1970 |
| Gender | | | | | | | | |
| Women | 21,5% | 1,7% | 5,9% | 6,8% | 0,2% | 3,9% | 60,0% | 982 |
| Men | 25,8% | 1,8% | 8,3% | 7,8% | 1,0% | 2,9% | 52,4% | 988 |
| Age (mean) | | | | | | | | |
| 20-39 | 25,5% | 2,1% | 5,8% | 4,4% | 0,4% | 4,8% | 57,0% | 821 |
| 40-49 | 22,2% | 0,9% | 6,3% | 6,2% | 0,1% | 1,8% | 62,6% | 479 |
| 50-64 | 22,1% | 1,9% | 8,9% | 11,6% | 1,1% | 2,8% | 51,6% | 670 |
| Education | | | | | | | | |
| Primary | 20,6% | 2,4% | 4,5% | 6,7% | 0,9% | 6,2% | 58,7% | 121 |
| Secondary | 21,7% | 1,6% | 7,7% | 8,7% | 0,8% | 2,8% | 56,8% | 1319 |
| Tertiary | 28,4% | 1,9% | 6,8% | 5,0% | 0,1% | 3,2% | 54,6% | 530 |
| Self-rated health | | | | | | | | |
| Less than good | 28,2% | 4,1% | 10,5% | 14,1% | 1,5% | 7,1% | 34,5% | 539 |
| (Very) good | 21,8% | 0,9% | 5,7% | 4,7% | 0,2% | 2,0% | 64,8% | 1431 |
| Employment at time of survey | | | | | | | | |
| Employed | 23,0% | 1,4% | 6,2% | 5,8% | 0,4% | 3,0% | 60,2% | 1520 |
| Unemployed | 27,3% | 0,4% | 9,9% | 7,9% | 3,6% | 7,9% | 46,7% | 156 |
| Retired | 23,6% | 4,3% | 9,2% | 18,7% | 0,0% | 4,4% | 39,8% | 148 |
| Inactive | 24,2% | 4,3% | 9,2% | 9,5 % | 0,0% | 4,6% | 48,2% | 146 |
| Income situation at time of survey | | | | | | | | |
| (Very) difficult to manage | 25,0% | 3,4% | 9,2% | 7,6% | 1,0% | 6,6% | 47,3% | 441 |
| Making ends meet | 23,2% | 1,3% | 6,4% | 7,3% | 0,5% | 2,5% | 58,9% | 1529 |

Source: AKCOVID wave 1. Weighted results.

# Fear of infection?



A&E attendances, Monthly data, NHS England

# Results

Table 3: Multinomial regression results, average marginal effects (AME)

| Variable | Have need and got care | COVID-related unmet need | Other unmet need | No unmet need |
|---|---|---|---|---|
| | Model 1 | | | |
| Female (ref=male) | 0,037* | 0,043** | 0,000 | -0,080*** |
| Age (mean) (ref=20-39 years) | | | | |
|     40-49 years | -0,046 | 0,037 | -0,027** | 0,036 |
|     50-64 years | -0,050* | 0,088*** | -0,012 | -0,027 |
| Education (ref=primary) | | | | |
|     Secondary | 0,035 | 0,070** | -0,016 | -0,089* |
|     Tertiary | 0,094* | 0,040 | -0,001 | -0,134** |
| Employment at time of survey (ref=employed) | | | | |
|     Unemployed | 0,035 | 0,023 | 0,002 | -0,059 |
|     Inactive | -0,026 | 0,099*** | -0,009 | -0,064 |
|     Retired | 0,009 | 0,089** | -0,008 | -0,090* |
| Income situation at time of survey (ref=make ends meet) | | | | |
|     (Very) difficult to manage | 0,008 | 0,013 | 0,024* | -0,044 |
| SRH (ref=poor) | | | | |
|     (very) good health | -0,089*** | -0,134*** | -0,071*** | 0,294*** |
| Nr of observations | 1970 | | | |
| Pseudo $R^2$ | 0,0715 | | | |

Source: AKCOVID wave 1.

# Results



Panel (c): Interaction between SRH status and employment status
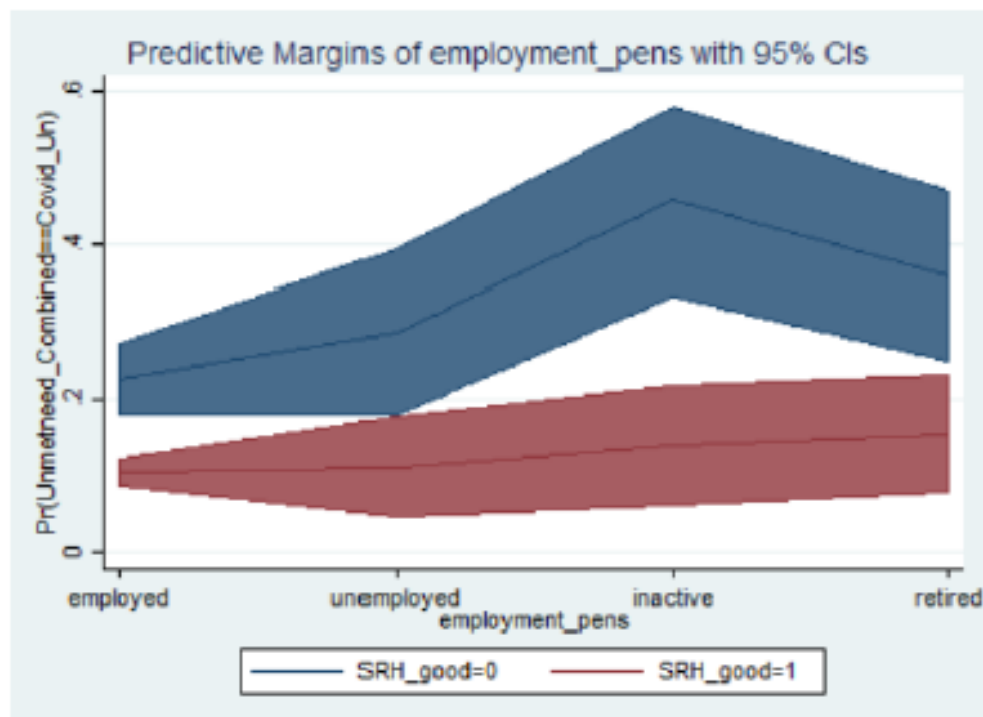
# Discussion

- Comparison of COVID/non-covid SUN is a strong element of paper – shows changes with "normal" (2015)

- Fear of infection seems to play a small role – how does this match emergency care utilisation patterns?

- Age important: why no over 65s? What is average healthcare utilisation for younger patients (eg under 40)? Why do they report SUN?

- Intro states that 80% of hip/knee replacement procedures were cancelled in April 2020. Seems plausible this explains pattern of results
  - Older patients more affected
  - Labour market "inactive" people more affected (can't work due to disability)
  - Unemployment/income plays little role (unemployment affects young), income plays a different role to cancellation of services – price signal/private care didn't play a role here.

# Suggestions for improvement

– Very clearly written and explained paper

– Clarify interpretation of MNL models: use binary outcomes for covid need?

– Explanation for no age gradiant in health care utilisation – routine check ups?

– Use of 2015 ESS and 2020 survey is questionable – need a more robust defence.

- Comparison of demographics in 2020/2015.

- Comparison of outcomes eg non-COVID SUN (are there other outcomes that aren't reported here that are comparable between 2015/2020)