Gesundheit Österreich GmbH

A crisis like no other? Subjective unmet needs in health care during the first wave of the COVID 19 crisis in Austria

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Definition

- **Subjective Unmet Needs (SUN)** for health care: gap between the services judged necessary to deal with one's health problems and services actually received (Allin et al., 2010) as opposed to clinical assessments (Carr & Wolfe, 1976)

Setting the scene 1/2

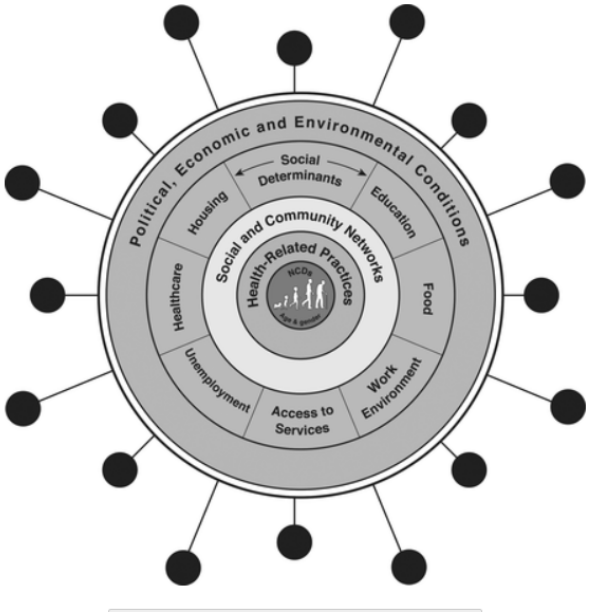
- Pandemic has had an unprecedented impact on European health care systems, many experienced a shock particularly for non-urgent treatments (ECDC, 2020) > postponements, capacities reserved for COVID-19 patients
- Patients experienced a de-prioritisation of essential care needs both in inpatient (De Rosa et al., 2020; Mafham et al., 2020; Wu et al., 2020; Soreide et al., 2020) and ambulatory care settings (Aujayeb et al., 2020)
- Austria saw e.g. a drop in inpatient stays for endoprothetic hip and knee surgeries of 80% in April 2020 compared to April 2019 (Eglau, 2021).
- **Dearth of knowledge on how this supply-side shock in health services is affecting access to care across different population groups.**

Setting the scene 2/2

- Tremendous social impact of the pandemic (Horton, 2020; Bambra, 2020) > ‚syndemic' (Merril, 2009)

- Previous crises:
  - Increases in out-of-pocket payments, reduced availability of services (due to austerity!)
  - Increase in SUN

- COVID-19 crisis:
  - **supply of healthcare dropped due to a shift of resources**
  - **very sudden shock to both health and economic systems**
  - **strong, sudden and relatively indiscriminate supply-side effects on health care systems**



Source: Bambra, 2020

How Austria handled the pandemic

- Stringent measures at the onset, loosening more quickly than others (cf. Hale et al., 2020)
- No official guidelines as to the closure of ambulatory care practices and shifting of services in hospitals > resulting in overly restrictive access to inpatient care, and large variations in ambulatory care (Schmidt et al., forthcoming; Webb et al., forthcoming)

Source: pixabay

Objectives of the study

- Compare unmet needs during the pandemic to pre-pandemic times in Austria („excess“ SUN)
- Analyse whether SUN during the pandemic were systematically related to (i) SES or (ii) other personal characteristics
  - System level factors (e.g. availability, waiting times)
  - Individual level factors (e.g. fear of contagion)

Data

AKCOVID survey (June 2020)

» Novel data from a representative survey in Austria (N=2,000) in the population aged 20-64 years

» Quota sample based on gender, age, education, household composition, and NUTS 2-regionPost-stratification weights used

European Social Survey (ESS) 2015, wave 7

» Used for the analysis of the pre-pandemic situation

» Survey of adults aged 15+

Methods

- Determine ‚excess' SUN: compare levels of SUN in June 2020 across age, gender, SRH and various SES groups to a pre-pandemic baseline
- Multinomial logistic regression analysis (AMEs) for SUN in 2020:
  - Model 1: adjust for age, gender and SES (education, employment, make ends meet) and SRH
  - Model 2a: only men
  - Model 2b: only women
  - Model 3: calculating interactions with SRH status (for age, financial well-being, employment)

Operationalising SUN variable

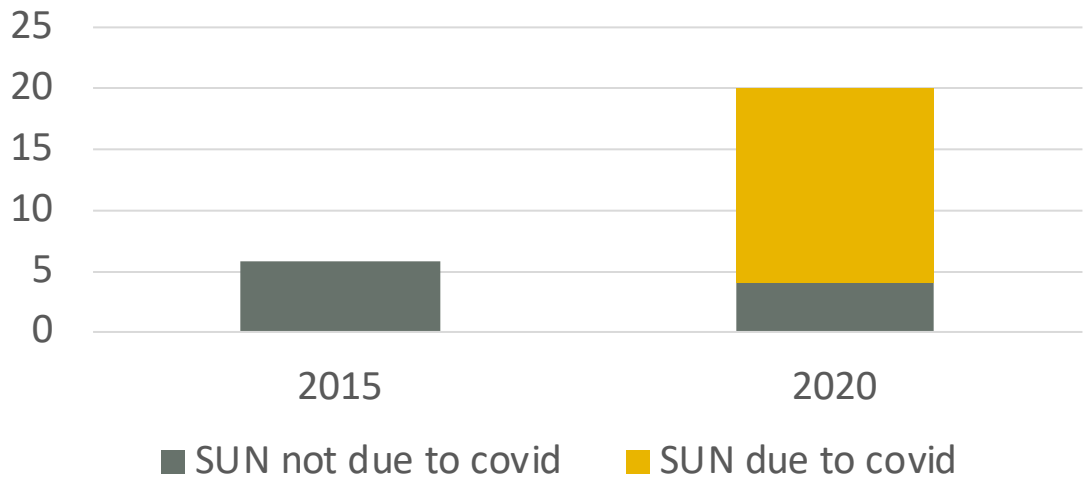
- Forgone medical examination or treatment since the beginning of the pandemic that was perceived as needed
- Distinguish those that had needs and managed to access care during the pandemic from those without care needs
- Conditional on reporting SUN, reason for SUN in 4 groups:
  - **had a need and received care**
  - **COVID-related SUN (fear of infection, provider closed, treatment postponed)**
  - **SUN not directly related to or caused by the pandemic (financial barriers, knowledge, waiting times, reachability, time)**
  - **no unmet need**

SUN in ESS are operationalized as a binary variable and directly correspond with the category of SUN unrelated to the pandemic in the AKCOVID data

Results: Comparison with pre-pandemic baseline 1/2

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



Results: Comparison with pre-pandemic baseline 2/2

	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		

Results: Prevalence of SUN and reasons for SUN

	% (mean)							
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
Total	23,5%	1,8%	7,0%	7,3%	0,6%	3,4%	56,4%	1970

- Most important reasons for SUN were directly related to the pandemic
- Almost one fifth of people in retirement (18.7%) reported postponements. High values also among people with poor SRH (14.1%) and in older age groups (11.6%)
- Closed providers most often for people with poor SRH (10.5%) and unemployed people (9.9%)
- Financial reasons most often by unemployed (3.6%) but overall very low

Results: Multivariate analysis (1/2)

» Controlling for demographics, financial well-being and SRH

Barriers related to the pandemic:

» Highest risk of reporting COVID-related barriers for people in oldest age group in the sample (50-64 years)
» Also, retired and inactive people significantly more likely to report these barriers, but no effect found for unemployed people
» Male retirees, male inactive (but not women)

Barriers not directly related to the pandemic's supply shock

» People with financial hardship (among men)
» Youngest age group (20-39 years)

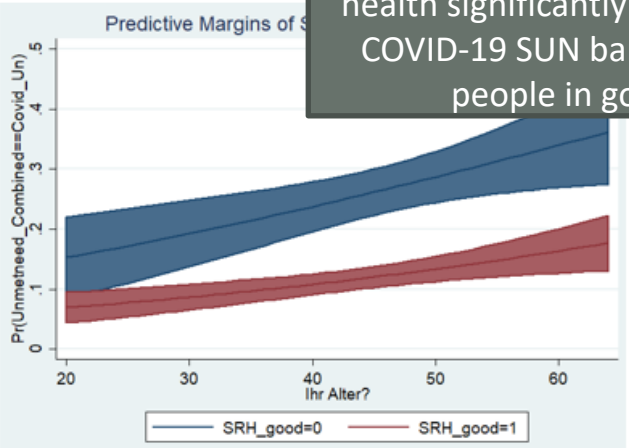
Results: Multivariate analysis (dv: SUN categories) (2/2)

Multinomial regression results, average marginal effects (AME)

	Model 1			
Variable	Have need and got care	COVID-related unmet need	Other unmet need	No unmet need
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			

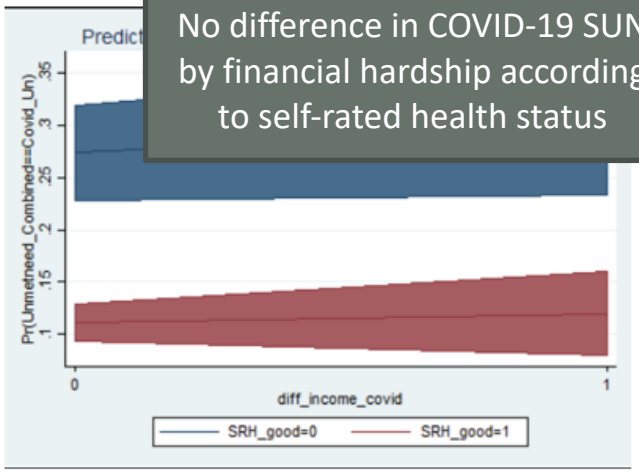
Analysing the dynamic of poor self-rated health status

Panel (a): Interaction betwe



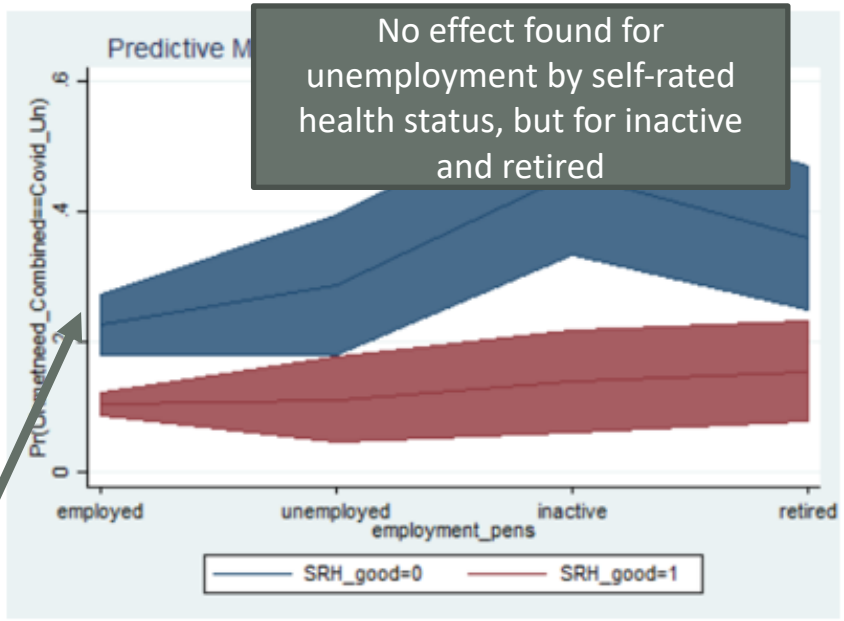
People in older age groups if in poor health significantly more affected by COVID-19 SUN barriers than older people in good health

Panel (b): Interaction between SRH status and difficulties in making ends meet



No difference in COVID-19 SUN by financial hardship according to self-rated health status

Panel (c): Interaction between SRH status and employment



No effect found for unemployment by self-rated health status, but for inactive and retired

Y-axis: Predicted probabilities to experience SUN due to COVID-19 reasons

Summary

- Stark increase in SUN in the pandemic (‚excess SUN'), exclusively due to reasons directly related to the supply-related shock: postponed treatments, closed providers and (marginally) fear of infection
- No differences by financial hardship for COVID-related reasons
- People in poor health consistently more likely to report SUN than others, and indications of ‚double vulnerability' (poor health and excluded from the labour market)
- People in the oldest age group in our sample (50-64 years) with worse health persistently more affected than those in good health

Discussion

- Four key messages arise from our results
  - Tripling of SUN raises concerns about mid to long-term health consequences …as well as for public health budgets
  - Lack of effect for socio-economic groups: Were those in higher SES (also) unable to find care they needed due to sudden restrictions in access?
  - Poor health and exclusion from labour market as potentially new vulnerabilities in this crisis
  - Older age groups in poor health among the most affected in terms of SUN:
    - General restricted access
    - Higher risk of requiring ICUs might have triggered an ‚invisible' effect of (further) de-prioritisation of older people

Food for thought / Conclusions

- Resilient responses require hospital and preparedness plans for hospitals and ambulatory care
- Role of primary care underestimated in Austria (unlike in other SHI countries like Netherlands or Slovenia)

- Negative financial impact on household income substantial relatively early, and expected to increase (Steiber, 2021).
- Future austerity measures to be expected? Might increase OOP and change SUN in the mid term.

Source: pixabay

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Thank you for your attention!

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Hypotheses

- SUN increased due to COVID-19 compared to before the pandemic (from very low levels)
- SUN increased particularly for those with **higher health care needs** (proxy: poor SRH)
- SUN increased **less severely for groups most affected in previous crises** (e.g. the unemployed; those with financial hardship)
- Differences in SUN exist for men vs. women due to differences in health, employment and income situation