support mechanisms. Priority-setting guidelines were also helpful.

Conclusion By including all medical specialties, nurses and physicians, and various institutions, the study provides information on how the COVID-19 mitigation also influenced those not directly involved in the COVID-19 treatment of patients. In the next stages of the pandemic response, support for healthcare professionals directly involved in outbreak-affected patients, those redeployed or those most impacted by mitigation strategies must be a priority.

159:oral SCALING UP NEUROLOGICAL INTERVENTIONS IN EAST AFRICA: A HEALTH ECONOMIC EVALUATION

Neurological disorders are currently among the top causes of disability adjusted life-years (DALYs) and deaths globally. A vast increase in disease burden is projected, particularly in low- and lower-middle-income countries (LLMIC). Paradoxically, in LLMIC settings, neurological disorders are often neglected, underdiagnosed, receive insufficient funding, and limited research. To combat the growing burden of disease, increasing focus must be placed on management of neurological disorders. Cost-effectiveness analyses of epilepsy (acute- and long-term management), migraine (first-line treatment, prophylaxis), Parkinson’s disease (drug treatment, physical therapy), and dementia (diagnosis and follow up, drug treatment, caregivers interventions) were performed to inform policy makers in Ethiopia, Malawi, and Tanzania. Health system costs were collected through a top-down microcosting method. Costing and coverage data were collected with expertise of East African neurologists and medical experts. Efficacy estimates were gathered by estimating the mortality or disability reduction, based on meta-analyses or systematic reviews. The cost-effectiveness analyses, calculating the incremental cost-effectiveness ratio (ICER), were conducted with FairChoices: DCP Analytics Tool. The health benefits of the interventions were estimated in DALYs averted. Cost-effectiveness analyses identified the long-term management of epilepsy (ICER: 0.35), self-managed treatment of migraine (ICER: 45.93), and support for dementia caregivers (ICER: 0.0004) as the best-buy interventions. Parkinson’s disease and the other dementia interventions were not deemed cost-effective in resource-constrained settings, because of its high costs or limited individual benefits. However, these cost interventions can be significantly impactful for patient’s families, indicating the need for further exploration of the non-health benefits using alternate methodology. The current findings support that an impact in managing neurological conditions can be made by scaling-up the identified cost-effective interventions in resource-constrained settings. By including these considerations carefully, a revision of the essential health benefit package can initiate a prime step forward in pursuit of poverty reduction and health equity.

Objective In the Netherlands, an increasing number of effective but extremely expensive cancer treatments are (temporarily) not reimbursed through mandatory basic health insurance. It seems that access to such treatments is currently limited: patients are often not allowed to pay out of pocket, and health insurers do not offer voluntary additional health insurance (VAHI) to cover such cases (Calcoen et al., 2017). However, patient might benefit from and prefer such insurance. Why is this not provided?

Methods In this paper, we provide a normative analysis, specifically from the perspective of social justice, of the question whether the Netherlands (and countries with similar healthcare systems) should change this policy and allow VAHI.

Results While the Dutch healthcare system has a strong egalitarian ethos, and allowing VAHI will lead to unequal access to potentially beneficial treatments, we argue that there are no in-principle justice-based objections against the provision of additional insurance. As long as mandatory basic health insurance covers all medically necessary treatments that societies owe their members on the basis of justice, denying citizens access to additional treatments based on considerations of equality would invoke the raising-up objection (Eyal, 2013), and may not be just.

We then consider how the introduction of VAHI to cover expensive cancer treatments in practice might lead to objectionable changes to the healthcare system. We suggest that it should be possible to maintain the current Dutch full population coverage, extensive service coverage, and relatively moderate cost sharing. Yet, whereas only an affluent clear minority of citizens has the ability to pay for top-up payments, a considerable majority may be able to afford VAHI. This might lead to a problematic two-tiered healthcare system, that reinforces existing class differences and undermines equal social standing of citizens with low income that cannot afford VAHI (Cf. Fourie, 2016).

138:oral RESPONSIBILITY IN A PANDEMIC: SHOULD VACCINATION STATUS BE USED TO DISTRIBUTE SCARCE MEDICAL RESOURCES?

Should the unvaccinated be deprioritized for scarce medical resources when resources are scarce and when hospitals become overwhelmed? This, among others, has surprisingly been entertained in several contexts during the COVID-19
pandemic. In the face of a seemingly never-ending waves of variants that cause hospitalization rates to skyrocket each time, and as numerous observational studies have demonstrated that being unvaccinated is significantly associated with increased mortality and hospitalizations, it is tempting to ‘attribute personal responsibility to the unvaccinated’ and deprioritize these individuals for scarce medical resources, or, as President Emmanuel Macron argues, ‘making life as difficult as possible.’ At first blush, there are at least two separate questions: (1) are the unvaccinated squarely responsible for the continuing spread of the virus and (2) are the unvaccinated squarely responsible for is responsible for the continuing burden on the healthcare system? The focus in this paper is on the second question, and I will interrogate the underlying values at stake in such a question.

I will argue that using vaccination status as a factor in scarce resource allocation is not defensible, though other ways of using responsibility may be. I argue that given the diversity of reasons for COVID-19 vaccine hesitancy, using vaccination status alone for scarce resource allocation may in some scenarios contravene widely accepted allocation principles. Recognizing objections to vaccines is critical to the first-order task of working out the relationship between vaccination and responsibility for burdening health systems in the pandemic. It may be defensible, however, to collective responsibility for vaccination through other mechanisms, through collective taxation for all unvaccinated individuals, for example. Increasing vaccine uptake will be central to the future of the pandemic, and policymakers must seek to understand the nature of vaccine hesitancy in their respective societies, as many have already sought to do.

**198:poster** USING THE BENEFIT-OF-DOUBT APPROACH FOR HEALTH SYSTEM EFFECTIVENESS: A GLOBAL CASE STUDY ON AMENABLE MORTALITY

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**Introduction** Many different indicators can be used for health system effectiveness. Therefore, using composite indicators is a good way to summarize them all. One example of such efforts is the Healthcare Access and Quality Index (HAQI) from the Global Burden of Diseases study, for which different causes of mortality amenable to health care are summarized in this index through principal component analysis and exploratory factor analysis. While these approaches use the variance of the indicators, they do not consider room for improvement, i.e. distance to the frontier. Thus, in this study we present the Benefit-of-Doubt (BoD) approach as a solution for combining frontier analysis and composite indicators, using amenable mortality estimates for 189 countries.

**Methods** We performed a retrospective observational and methodological study, using data on 32 causes of mortality amenable to health care for 189 countries in 2015. As these indicators can be summed up (they all have the same units), there is a gold-standard to compare with. However, this is not the case for most of the health system effectiveness indicators or other analyses. For analyzing effectiveness through the BoD approach, countries were divided by regions, either by WHO regions and by socio-demographic index (SDI).

**Results** We have found important differences, highlighting those causes of death that contributed more to effectiveness by WHO and SDI region. There were wide heterogeneities across causes of death. Additionally, overall analysis showed that the composite indicators were correlated but with some specific important differences.

**Discussion** We show that the BoD approach is a good option for computing composite indicators, also when using information on ‘room for improvement’, i.e. distance to the frontier. The use of BoD in health systems performance assessment, specifically in effectiveness and efficiency dimensions, can be an interesting step towards priority setting.