

## Healthy Nails versus Long Lives: An Analysis of a Dutch Priority-Setting Proposal<sup>1</sup>

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How should governments use the Global Burden of Disease (GBD) estimates of individual disease burdens to set priorities? In this chapter, I address this question through a case study of priority-setting principles proposed by the Dutch Council for Public Health and Health Care, which can be paraphrased as follows (RVZ, 2006, pp. 31-5).<sup>2</sup>

**IRRELEVANT:** There should be no public funding of interventions to prevent or treat ailments that impose only a small burden on individuals who are otherwise okay.<sup>3</sup> (Individuals would be legally permitted to spend private resources to alleviate such ailments.)

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<sup>2</sup> Until 1 January 2015, the Council was known as the “Raad voor de Volksgezondheid en Zorg,” or RVZ. It is now the “Raad voor de Volksgezondheid en Samenleving” (RVenS).

<sup>3</sup> The principles were formulated by the Council assuming that individuals have no other health problems than the ones mentioned. I shall follow this simplification throughout.

**RELEVANT:** All other burdens can stake a claim on public resources, as follows. More severe burdens should receive some extra weight, but averting a multitude of moderate or large harms should take priority over saving a life. Interventions for ailments that impose a moderate or large burden should be funded if they satisfy a severity-weighted cost-effectiveness standard, with ailments that impose greater burdens being permitted a higher cost-per-Disability-Adjusted Life-Year averted.<sup>4</sup> (The proposed formula for the cost-effectiveness standard was [annual burden] × €80.000, where the burden ranged from 0 [no health problems] to 1 [death]. Interventions with a marginal cost-per-DALY-averted below this standard were judged cost-effective.)

IRRELEVANT implies that averting one very large individual burden should always take priority over averting a number of very small individual burdens in the Dutch population, no matter how large this number. The suggested criterion for what constitutes a “small burden” was an annual burden of less than 0.1 DALY. This implied that there would be no public funding for conditions such as onychomycosis, a common<sup>5</sup> fungal infection of the toenails which renders them unattractive and can lead to nail loss. If, for a given cost, one could either cure one young person’s terminal illness (thereby restoring him to full health) or instead cure a number of cases of onychomycosis, then one would always save the

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<sup>4</sup> The original report made use of so-called Quality-Adjusted Life-Years (QALYs) rather than DALYs. But follow-up work on implementation draws on the disease burden as measured by the Global Burden of Disease study, which uses DALYs (CVZ 2012a,b). To simplify matters, I therefore formulate all criteria in terms of DALYs.

<sup>5</sup> Burzykowski et al. (2003) estimate the prevalence of onychomycosis in Europe at 27%.

young person's life, no matter how many citizens one could instead cure of onychomycosis.

RELEVANT implies that averting a large number of individual burdens at or in excess of the threshold can take priority over saving a life. At an estimated annual burden of 0.1 DALY, erectile dysfunction just reached the proposed threshold (RVZ 2006, p. 34). A case of an ailment well above this threshold is paraplegia, which imposes a burden of 0.30 DALY per year (Vos, this volume). To be concrete: on the Council's proposal, one would be willing to spend just as much to avert six hundred cases of impotence for a decade as one would to save a twenty-year-old's life<sup>6</sup> and one would be prepared to spend more to avert in excess of six hundred cases of impotence for a decade than to save a twenty-year old's life. Likewise, curing twelve cases of paraplegia in twenty-year-olds would take priority over saving a twenty-year-old's life.<sup>7</sup>

Initially, the Council's recommendations were rejected by the Dutch government, which, in line with the mantra that "life is priceless," appeared unwilling to accept a central role for any explicit cost-effectiveness criterion in priority setting (Bleichrodt 2008, p. 14). However, a growing public awareness of the need to make the fairest and most efficient use of health resources prompted a later government to change tack. In 2012, the Liberal-

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<sup>6</sup> Ten years of impotence would cause 600 DALYs. Since the annual health burden would be 0.1, one would be willing to pay up to €8,000 per DALY averted to avoid this loss, so  $600 \times €8,000 = €4.8$  million. Adding 60 years of life to a 20-year-old would generate 60 DALYs. Since the annual health burden would be 1 DALY, one would be willing to pay up to €80,000 per DALY averted to avoid this loss, so  $600 \times €80,000 = €4.8$  million.

<sup>7</sup> Preventing a sixty-year-long case of paraplegia yields  $0.3 \times 60 = 18$  DALYs; the relevant cost-effectiveness threshold is  $0.3 \times €80,000 = €24,000$  per DALY averted. The system would therefore be willing to pay more than €4.8 million to avert 12 such cases.

Labour coalition agreement endorsed, at least in outline, both parts of the Council's plan. It committed to removing all interventions targeted at conditions with a low individual health burden from the universally mandated and publicly subsidized insurance package (CVZ 2012a, pp. 2-3). It also endorsed an individual burden-sensitive cost-effectiveness threshold as a criterion for the content of this health insurance package (VVD-PvdA 2012, p. 56). The GBD was one of its principal sources for determining individual disease burdens (CVZ 2012b).

These recommendations are of interest beyond the Dutch context, because the question how to balance many smaller individual harms against a larger individual harm is of practical and theoretical importance. It has been debated in practical terms in the US (in the context of the 1990 Oregon Medicaid priority-setting experiment) and, more recently, in Germany and Norway (Ubel et al. 1996; Buyx et al. 2011; NOU 2014, pp. 88-90). There is also a lively discussion in moral theory between proponents and opponents of allowing a multitude of small harms to take priority over one death (see, e.g. Kamm 1993; Scanlon 1998; Parfit 2003; Otsuka 2006; Temkin 2012; Broome n.d.). The Council's proposals are worth studying because they appear to imply a radical departure from widespread practice. For existing health systems do in fact provide small benefits with resources that could instead be used to save lives (Broome n.d.; Hausman 2015, p. 213). These proposals also offer an opportunity to reflect on how competing moral theories, which are typically assessed in terms of their implications in fanciful thought experiments, might play out in reality.

In this chapter, I shall offer a qualified defence of the general form, though not the detail, of the Council's proposals. In so doing, I shall attempt to fill two lacunae in the Council's report and subsequent policy documents. The report asserted that the proposed

severity-sensitive criteria for priority-setting would be “socially acceptable” (RVZ 2006, pp. 82).<sup>8</sup> However, no evidence was provided that the proposed criteria indeed tracked citizens’ attitudes towards health-care resource allocation. Nor was a principled justification offered for the hypothesized social attitudes. I aim to provide both.

The argument proceeds as follows. In Section I, I argue that there is some, albeit weak, evidence that a substantial proportion of people’s case judgments are in line with the general form of the Council’s proposals.

In Section II, I demonstrate that a principle called Aggregate Relevant Claims (ARC), explains, in a manner that justifies, these case judgments. I also argue that while this principle justifies the general form of the Council’s proposals, it gives us reason to reject its 0.1 DALY-per-year threshold.

In Section III, I ask why, if denying public resources for the alleviation of small burdens is indeed justified and believed to be so by a substantial part of the population, existing public health systems devote resources to minor ailments without, apparently, generating much moral opprobrium. In reply, I argue that the practice of attending to minor ailments may be justified by the fact that some typically minor ailments generate large individual burdens for a minority. A health system should, therefore, attend to typically minor ailments for the sake of averting the atypically large burdens the ailment imposes on some.

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<sup>8</sup> This in contrast with severity-insensitive criteria such as the cost-effectiveness standard employed by NICE in England and Wales, which judges interventions to be cost-effective if they cost less than £20,000 per QALY gained (NICE 2008).

Before proceeding, I will note a limitation of the analysis. Throughout, I focus solely on how individuals will fare (what their health-related quality of life will end up being). I therefore neglect one potential object of distributive concern, which is the quality of people's prospects (or expected well-being). A plausible theory of distributive justice should attend to both individuals' expected well-being and their final well-being (John 2014; Voorhoeve and Fleurbaey 2016; Otsuka and Voorhoeve 2018). This chapter's analysis is therefore only one step towards a more comprehensive account of distributive justice in health.

### **I. Psychology<sup>9</sup>**

A number of ethicists report considered case judgments which broadly conform to the Council's proposals, in the sense that they hold both that there is no number of relatively small harms such that preventing them can permissibly take priority over saving one life and that while great harms should receive extra weight, averting a large number of considerable harms should take priority over saving one life.<sup>10</sup> They sometimes refer to these case judgments as "common-sensical" or "widely shared" (Otsuka 2004, pp. 424-26; Temkin

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<sup>9</sup> This section's discussion of Ubel et al. (1996), Pinto-Prades and Lopez-Nicolas (1998), and Damschroder et al. (2007) paraphrases material in Voorhoeve (2018, pp. 127-32).

<sup>10</sup> See, among others, Brink (1993, p. 270); Scanlon (1998, pp. 238-41); Crisp (2003, p. 754); Otsuka (2006); Dorsey (2009); and Temkin (2012, chapters 2 and 3). Frances Kamm endorses IRRELEVANT. However, she also holds that even harms as large as paraplegia are not relevant when one can instead save one person from death. She would therefore reject RELEVANT in the proposed form. See Kamm (1993, chapters 8-10; 2007, pp. 297-8 and 484-6).

2012). However, like the Council, they do not provide evidence for this claim. Is such evidence available?

In this section, I shall critically review four studies that, to my knowledge, offer the best (albeit, as we shall see, imperfect) evidence of people's attitudes towards them in the health context.<sup>11</sup>

Ubel et al. (1996) asked U.S. students ( $N = 42$ ) to choose between curing ten people of a case of appendicitis which would be terminal if untreated and curing a number of people from a particular less severe ailment. The latter varied in severity from mild (a cyst on one of the tendons in one hand which does not impair functioning but which yields a visible 'lump' and causes occasional mild pain) to considerable (a benign meningioma—a growth in the tissue lining of the brain—which causes constant, often severe headaches but does not diminish life expectancy). For each ailment, subjects were asked which number of people would have to be cured of this ailment in order to “equal the benefit brought about by curing ten people of appendicitis” (Ubel et al. 1996, p. 111). Subjects were invited to write any number they wished, but some chose to answer “an infinity” or “no number”. Ubel et al. (1996) does not directly report the relevant pattern of answers, but one can deduce it from the data provided one assumes (as seems sensible), that every subject who

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<sup>11</sup> I leave undiscussed some related studies. Choudhry et al. (1997), Rodriguez-Miguez and Pinto-Prades (2002), and Hukin and Tsuchiya (2005) all report a median preference for “concentrating” a given sum of benefits among a few (thereby giving each a great individual benefit) rather than “dispersing” them among very many (and giving each only an individually small benefit). But they are not ideal for our purposes, because they do not investigate whether respondents endorse the idea that a large benefit to one would outweigh *any* number of minor benefits others. See also Cowell et al. (2015) for a study of people's attitudes to RELEVANT and IRRELEVANT in the context of income distribution.

answered “an infinity/no number” to the appendicitis versus meningiomas question also answered “an infinity/no number” to the appendicitis versus cysts question. The inferred proportions are reported in Table 1.

**Table 1. Responses to paired questions inferred from Ubel et al. (1996)** (in percent,  $N = 42$ ).

Question: “Which number of people cured of the condition would yield a benefit equal to curing ten of terminal appendicitis?”		Meningioma case	
		Answer is a natural number	Answer is “an infinity/no number”
Cyst case	Answer is a natural number.	59.5	assumed to be 0
	Answer is “an infinity/no number”	35.7	4.8

These findings suggest that a substantial minority (the 35.7% who answer “an infinity/no number” in the appendicitis versus cysts case but who provide a natural number in the appendicitis versus meningiomas case) expressed attitudes in line with both IRRELEVANT and RELEVANT. On the face of it, these results therefore do not support the idea that these propositions are in line with common sense. However, the survey question seems likely to underestimate support for IRRELEVANT. For the survey asked subjects what number of lesser ailments averted would *generate the same benefit* as averting ten deaths. But IRRELEVANT is about what ought to be done, rather than about what yields the greatest aggregate benefit. A non-consequentialist may hold that one ought to save a life rather than save a multitude from minor harms even when the latter would generate a greater total benefit (Scanlon



1998, p. 253). To capture such non-consequentialist attitudes, one should therefore ask a question about *permissible choice*.

Rueger (2015) employs such a “permissible choice” framing. It reports an online survey ( $N = 532$ ) primarily among philosophy students at the London School of Economics and members of the Philosophy in Europe (‘philos-l’) distribution list, in which subjects were asked two questions: whether there was a natural number of people (no matter how large) they could save from a headache such that they should save this number rather than save one young person’s life; and whether there was a natural number of people (no matter how large) they could save from paraplegia such that they should save this number rather than save one young person’s life. As reported in Table 2, nearly two-thirds (63.9%) of respondents answered these questions in a manner that is consistent with endorsing both IRRELEVANT and RELEVANT. This substantial difference with the aforementioned findings of Ubel et al. (1996) is consistent with the hypothesis that asking about permissible choice (rather than aggregate benefit) elicits a higher support for the combination of IRRELEVANT and RELEVANT. However, a drawback of Rueger’s survey is subjects’ self-selection. Among the thousands who received the link, only those with an interest in the permissibility of aggregation chose to respond. This may explain both the overwhelming support for the combination of IRRELEVANT and RELEVANT and the striking fact that, in this survey, 31.2% of subjects also objected to letting any number of cases of paraplegia jointly outweigh a life—an answer which involves rejecting RELEVANT.

**Table 2. Responses to paired questions in Rueger (2015) (in percent,  $N = 532$ ).**

Is there a natural number $N$ of people cured of the condition such that one should cure this number of people rather than save a young adult's life?		Paraplegia	
		Yes	No
Headaches	Yes	4.1	0.8
	No	63.9	31.2

A third study, by Pinto-Prades and Lopez-Nicolas (1998), also employs a choice framing, although, regrettably, it did not focus on *permissible* choice but only on what a person *would* choose. Spanish students ( $N = 83$ ) were asked to choose between investing in a neonatal care unit which would save the lives of 10 newborns and a programme that would treat a “very large number (e.g. 100,000)” of others with an impairment less severe than death. The impairments in question varied in severity. The least severe impairment was living with “moderate pain or discomfort” that did not impair any of the person’s everyday activities. For this impairment, more than half of subjects said they would choose to invest in the neonatal unit (ibid., p. 290). For more severe impairments, however, the study found that a large majority was willing to prioritize saving a multitude from a severe condition over saving ten neonates. For example, the median respondent was willing to avert 225 cases of the following severe condition rather than save 10 neonates: “some problems walking about; some problems performing usual activities; extreme pain or discomfort; and moderately anxious or depressed” (ibid., p. 290).

These findings are consistent with majority support for a prohibition on investing potentially life-saving public funds in the treatment of minor ailments and majority support

for a requirement to prioritize averting a large number of severe harms over saving a small number of lives. However, because Pinto-Prades and Lopez-Nicolas report only median responses, we cannot infer the share of people who support both propositions.

The study also had several other shortcomings. First, the questions did not mention the quality of life of the neonates after having their lives saved. Nor did they mention the improvement in health of the people treated for the other ailments. So it is unclear what health gains were at issue for both groups.

Second, the evidence it provides for IRRELEVANT is imperfect, since some respondents who prioritized the ten neonates might have been willing to treat the lesser impairment if the number had been larger than the suggested 100,000. The evidence of support for RELEVANT is also imperfect. For some have argued that a neonate's claim to life is much less strong than the claim to life of a person with developed rational capacities (Singer 1993; Jamison et al. 2006). Some subjects may therefore have regarded a claim to life-saving treatment on behalf of a neonate as significantly weakened by its present lack of rational capacities. No such weakening presumably applied to the claims of the people who could instead be saved from the various impairments, since one naturally thinks of them as fully-formed persons. This factor could lead to an overestimation of support for RELEVANT, because it could induce some to choose to save many from a severe harm rather than save ten neonates, even though they would not have favoured saving the many from this harm over saving ten young adults' lives.

Unlike the aforementioned studies, Damschroder et al. (2007) focus on the general population. Moreover, their subject pool was relatively large (N = 827 for their Study 1 discussed here). They asked subjects to make rationing choices and allowed them to respond that in such choices, averting the greater individual harm should take priority over

averting any number lesser harms. Unfortunately, for our purposes, the trade-offs they investigated are less than ideal: the most severe harm considered is quadriplegia and the least severe is paralysis in one foot. To test subjects' acceptance of IRRELEVANT, it would have been better to have trade-offs with a greater gap in severity. Nonetheless, the following findings are pertinent.<sup>12</sup> In a choice between curing ten people of quadriplegia and curing "some number of people in a population of 1 million" from foot paralysis, 40% said that they would cure the quadriplegics no matter how many in that population they could instead cure of foot paralysis. By contrast, in a choice between curing ten people of quadriplegia and curing some number of people in a population of 1 million from paraplegia, only 7% said that they would cure the quadriplegics no matter how many in that population they could instead cure of paraplegia. As a follow up, subjects who, for the initial population of 1 million, said they would prioritize the quadriplegics over any number of people suffering from a lesser impairment were asked whether there was a number of people in the world's population such that they would save that number from the lesser impairment rather than save ten from quadriplegia. More than half (59%) replied that "there was no such number" (Damschroder et al. 2007, p. 270). If this share applies across all such answers and we assume (as before) that all those who prioritized curing some number of people of foot paralysis over curing ten quadriplegics also prioritized curing some number of paraplegics over curing ten quadriplegics, then we can infer the shares depicted in Table 3. This suggests that close to one-fifth (19.5%) of respondents believe that even billions of cases of foot paralysis should not take priority over ten cases of quadriplegia, but that a vast number of

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<sup>12</sup> The following numbers are inferred from the odds ratios in Damschroder (2007 Table 4) and the finding that 17% of all answers were "off scale refusals" (p. 270).

cases of paraplegia should do so. Because the gap in severity (from foot paralysis to quadriplegia) is less great than it might be and even the smaller harm (foot paralysis) is quite substantial, this gives a lower bound for the proportion of subjects who endorse both IRRELEVANT and RELEVANT.

**Table 3. Responses to paired questions inferred from Damschroder et al. (2007)** (in percent,  $N = 827$ ).

For which number of people cured of the condition would you cure that condition rather than ten quadriplegics?		Paraplegia case	
		Answer is less than “the Earth’s population.”	Answer is “no number in Earth’s population.”
Foot paralysis case	Answer is less than “the Earth’s population.”	76.4	0 (by assumption)
	Answer is “no number in earth’s population.”	19.5	4.1

Beyond the issues already raised, the studies reviewed all face the following challenge. These surveys pose unfamiliar and difficult questions. Respondents have no opportunity for extensive reflection, discussion with others, or revision of their answers. Indeed, some of the studies report high rates of incomplete or inconsistent answers (Ubel et al. 1996; Damschroder et al. 2007). The case judgments elicited are, therefore, highly imperfect indicators of the *considered* case judgments which are meant to serve as “provisionally fixed points” in our search for reflective equilibrium (Daniels 2013).

There is, no doubt, a need for research that allows time for information-gathering, reflection, and deliberation and that poses priority-setting questions in the right format, viz. one that is choice-based, compares preventing death with preventing very small harms, and invites subjects to consider an unbounded population size. Notwithstanding the shortcomings of the studies reviewed, one can, I believe, draw the following conclusion: there is some low-quality evidence that a substantial share of subjects believe both that one ought to prioritize saving one life over saving any number of people from a minor harm and that one ought to prioritize saving a very large number of people from considerable harm over saving one life.

## **II. Theory**

Of course, in the process of searching for reflective equilibrium, we do not uncritically accept such case judgments. Rather, we attempt to find moral principles that explain and justify them. If such principles can be found, then our confidence in these judgments is bolstered; if not, then it should decline. In this section, I therefore consider which distributive principle would, if correct, justify these case judgments and the general form of the Council's proposals.

Let us suppose, as is common in health economics, that a healthy life-year is the unit of well-being. On this assumption, utilitarianism is inconsistent with both these case judgments and the Council's proposals. On utilitarianism so understood, we ought to do what maximizes the sum-total of DALYs averted. This conflicts with an outright ban on devoting public resources to treating minor ailments. The utilitarian idea that every DALY averted is equally valuable also conflicts with the severity-weighted cost-effectiveness standard endorsed by the Council (and in surveys), according to which DALYs averted by

eliminating a large individual burden are more valuable than DALYs averted by eliminating a moderate individual burden.

The view known as prioritarianism is a more promising candidate. In its standard form, prioritarianism consists in the following three principles:

**DIMINISHING MARGINAL VALUE:** Increments in a person’s well-being have finite, positive and diminishing marginal moral value—an increment that takes place from a lower level receives a higher “priority weight” than an increment that takes place from a higher level.

**SEPARABILITY:** The moral value of an increment in a person’s well-being depends only on his level of well-being and not on how anyone else fares.

**MAXIMIZATION:** We ought to maximize the sum-total of moral value, which is the sum of priority-weighted well-being (Parfit 1995; Adler 2012).

Because it gives greater weight to improvements in well-being that occur from a lower level, prioritarianism can account for the greater value that the Dutch proposals and survey respondents assigned to improvements in well-being for individuals with a greater individual burden of disease.<sup>13</sup>

There is, nonetheless, some tension between prioritarianism and the Council’s proposal. According to prioritarianism, such small burdens should carry some small weight

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<sup>13</sup> To be precise: the general idea of being willing to pay more for a DALY averted for a person facing a higher burden of disease is consistent with prioritarianism. However, see Voorhoeve (2010) for an argument that the particular conception of “disease burden” and the associated weighing function proposed by the Council were implausible.

in health care allocation decisions. Rather than a threshold below which burdens can never make a claim on public resources, prioritarianism would therefore motivate a criterion on which the cost-per-DALY at which an intervention is judged cost-effective continuously decreases as the magnitude of individual burden declines (Nord and Johansen 2014).

Moreover, standard prioritarianism doesn't fit with the judgments of a substantial share of surveyed subjects. On standard prioritarianism, sparing one person the harm of onychomycosis has a small positive value. Moreover, averting  $N$  such cases of onychomycosis generates  $N$  times as much value as averting one such case, so that for some  $N$ , the moral value of averting  $N$  cases of onychomycosis will exceed the large moral value of saving one life.<sup>14</sup> Prioritarianism is therefore at odds with the conviction that there is *no* number of small individual burdens that one ought to avert rather than save one young person's life. Put differently: for a prioritarian, the same moral calculus which might justify refusing public resources for onychomycosis treatment in the Netherlands might also justify including onychomycosis treatment in a Chinese health plan. Thus, it conflicts with the sense that the gap between what is at stake for a person with onychomycosis and a person facing death is so large that, out of respect for the person facing death, one simply cannot countenance prioritizing the needs of the former, no matter how many there are (cf. Scanlon 1998, p. 235; Kamm 2007, pp. 484-6).<sup>15</sup>

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<sup>14</sup> This is true even though, as discussed in Rabinowicz (2001, fn.13) a prioritarian can choose the value of averting a case of onychomycosis so that, for any *particular* finite  $N$ , saving  $N$  people from paraplegia is less valuable than saving one life.

<sup>15</sup> For somewhat more complex reasons, standard egalitarian views also cannot accommodate principles IRRELEVANT and RELEVANT in combination. See Fleurbaey, Tungodden, and Vallentyne (2009). There is, however, a non-standard form of prioritarianism which can accommodate the judgments discussed here (Crisp 2003;



In contrast with standard prioritarianism, the following principle is consistent with this judgment and with the general form of the Council's recommendations. On Aggregate Relevant Claims (or ARC, for short):

- (1) Each individual whose well-being is at stake has a claim.
- (2) These people's claims compete just in case they cannot be jointly satisfied.
- (3) An individual's claim is stronger:
  - (3.1) the more her well-being would be increased by being aided; and
  - (3.2) the lower the level of final well-being from which this increase would take place.
- (4) A claim is relevant if and only if it is sufficiently strong relative to the strongest competing claim.
- (5) One should choose the alternative that satisfies the greatest sum of strength-weighted, relevant claims (Voorhoeve 2014, p. 66).

ARC is consistent with a ban on using potentially life-saving resources for a minor ailment if we assume that a claim to be cured of this minor ailment is too weak to be relevant when compared to a young person's claim to be cured of a terminal illness. It accounts for the special priority for very severe ailments by holding that the strength of a person's claim to a given increment in well-being depends on the level of well-being from

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Brown 2005). On this view, there is an absolute threshold of well-being, such that an improvement in well-being below the threshold, no matter how small and no matter how few people would receive it, always outweighs an improvement above this threshold, no matter how large and no matter how many people would receive it. When all improvements take place below the threshold, then the numbers count, as do their size and the level from which they take place. Due to space limitations, I cannot discuss this view here. (For discussion, see Brown 2005, Adler 2012, Chapter 5 and Voorhoeve 2014, p.67n6.)

which the increment takes place. Finally, it requires averting a large number of considerable ailments rather than saving one life, so long as the former are severe enough to count as relevant.

Of course, this fit with some apparently widely held case judgments alone does not provide a strong reason to endorse ARC. We must also ask whether it has a plausible rationale.

ARC has its foundation in an attempt to arbitrate between the competing imperatives of aggregative and non-aggregative approaches to distributive justice (Voorhoeve 2014, pp. 68-70). On the aggregative approach, the equal value of each person's well-being gives one reason to regard satisfying  $N$  claims of a given strength as  $N$  times as important as satisfying one such claim. This approach is attractive because it assigns equal marginal moral importance to every person's claim of a given strength. The aggregative approach directs one to satisfy the greatest sum of strength-weighted claims.

The non-aggregative approach requires that one considers what is at stake for each person taken separately. After one has done so, one compares each claim, taken separately, with each competing claim, taken separately. From an objective perspective, in these pairwise comparisons, the strongest claim always wins out. Therefore, on a non-aggregative approach, it is most important to satisfy the individually strongest claim.<sup>16</sup> If one were instead to satisfy a weaker claim, then the larger the gap in strength between the strongest

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<sup>16</sup>Note that, because the strength of a person's claim is a function both of how much a person could gain and how badly off he would be without this gain, the strongest claim is not necessarily made on behalf of the person who would be worst off. The non-aggregative view is therefore not consistent with the maximin principle.

claim and the weaker, satisfied claim, the more one would depart from what is most important, on the non-aggregative approach.

The idea behind ARC is that both the aggregative and non-aggregative approaches place rightful demands on us. Given that these demands sometimes conflict, one must adjudicate between them as best one can. ARC tells one to follow the aggregative approach under the restriction that this does not lead to too great a departure from what the non-aggregative approach considers most important.

Admittedly, there are other conceivable compromises between aggregative and non-aggregative approaches. Why is ARC the correct one? And when would one depart too far from the non-aggregative approach, so that a claim becomes irrelevant? There are different ways of answering these questions (see Kamm 1993, Chapter 8-10). Here, I outline an answer which appeals to a particular conception of the non-aggregative approach (Voorhoeve 2014, pp. 70-75; 2017). On this conception, one sympathetically takes up each person's perspective, one person at a time, in the following manner. One places oneself in a person's position (call her A), taking on both A's maximally permissible degree of concern for her own well-being and the minimally required degree of concern for a stranger's well-being. One then compares, from A's perspective so defined, what is at stake for her with what is a stake for a single person with the strongest competing claim. Next, one judges whether, if A were acting solely on the hypothesized pattern of concern and had to choose whether to satisfy her own claim or the competing claim of the other, she would forgo satisfaction of her own claim in order to satisfy the other's claim. If A would prioritize the other person's claim, then A's claim doesn't count—it is irrelevant. By contrast, if A would prioritize her own claim, then A's claim is relevant.

By way of illustration, suppose A has onychomycosis and the strongest competing claim is to life-saving treatment. Intuitively, it is inconsistent with maximally permissible self-concern (and minimally required other-concern) to prioritize one's own relief of onychomycosis over a stranger's life. A's claim is therefore irrelevant; she cannot decently place a claim to treatment for onychomycosis in the balance to be weighed against a life. Now suppose that A has paraplegia. Intuitively, it is consistent with maximally permissible self-concern (and the minimum degree of altruism required) to save oneself from paraplegia rather than save a stranger's life. A's claim is therefore relevant; she can, consistent with decency, place a claim to treatment for paraplegia in the balance to be weighed against a life.<sup>17</sup>

So conceived, the relevance constraint emerges when one sympathetically places oneself in the position of a person with a weaker claim (person A) and compares what is at stake for her with what is at stake for the person with the strongest competing claim. When the gap between the two is very large and these claims are considered one-against-one, even from A's personal perspective, satisfying her weaker claim is less important than satisfying the strongest competing claim. Others, less partial to A's interests, will naturally agree. It follows that there is, in this case, no legitimate perspective from which A's claim is at least as important as the strongest competing claim. The proposed approach then regards A's claim as irrelevant. More generally, a claim is irrelevant when and because it is not legitimately assertable on anyone's behalf in the face of the strongest competing claim.

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<sup>17</sup> I here assume, without argument, the view that one is morally permitted to give substantial priority to oneself when one does not thereby trespass on other's rights. For discussion of this view, see Kagan (1991), Scheffler (1994) and Kamm (1996; Chapter 8).

By contrast, when the competing claims do not differ that much in strength, the person with the weaker claim is entitled to place her claim in competition (to be considered alongside all other claims of its kind). For, in that case, there is at least one permissible perspective (her own) from which satisfying her claim is at least as important as satisfying the strongest competing claim. More generally, a claim is relevant precisely when and because it is legitimately assertable on someone's behalf in the face of the strongest competing claim.

We should note that this line of reasoning does not pin down a precise threshold. It merely says that A's claim to avoid some burden is relevant vis-à-vis a stranger's claim to avoid death just in case, from A's legitimate personal perspective, avoiding the burden she faces is at least as important as avoiding the death of a stranger. It seems that everyday ethics does not specify precisely when this should be the case. Perhaps, as some have argued, the question does not admit of a precise answer (Parfit 2011, Section 6 and Chapter 59).

Its vagueness notwithstanding, this idea suggests that the threshold should be set differently than the Council proposed. To see why, consider an illness which would leave a twenty-year-old in a health state with a value of 0.91 (on a scale on which 0 is a quality of life equivalent to death and 1 is full health), thereby imposing on him an annual burden of 0.09 DALY. Suppose further that if untreated, he would live in this state until his death at eighty, but that if he were cured, he would be in full health until his death at eighty. If untreated, the condition therefore imposes on him a lifetime burden of 5.4 DALYs. If one used the Council's threshold of 0.1 DALY-per-year, a cure for this condition would not be eligible for public funding, no matter how many people it would help. The proposed rationale for ARC would condemn this judgment on the assumption that, from one's

personal point of view, one is permitted to regard a burden equivalent to losing a little over five years of one's life as more important than a stranger's loss of sixty years of life. This assumption is plausible. A young man is not, for example, required to sacrifice five years of his own life (which would, let us suppose, last for eighty healthy years) to save a young stranger's life. According to ARC, the burden in question therefore gives rise to a relevant claim to its alleviation. In this instance, and contrary to the Council's proposals, ARC seems to arrive at the right verdict. More generally, as this example illustrates, the proper object of a person's prudential concern is the health burden he faces over his life as a whole rather than the burden he faces in any given year (Ottersen 2013). ARC therefore motivates a shift to a different kind of threshold, which focuses on a person's lifetime loss in health-related well-being. While the boundaries of permissible self-concern are vague, my own tentative judgment is that a person is not obligated to give up more than a few months of life in good health in order to save a young stranger's life. If this judgment is correct, then it would be consistent with ARC to set the threshold at or below a lifetime burden of 0.33 DALY.

### **III. Practice**

Some consider ARC is an implausibly radical doctrine. As Broome (n.d., p.3) puts it:

“Hardly anyone in the world of practical health-care believes [IRRELEVANT]. Take an example. If you are in a hospital run by the UK National Health Service, and you get a headache, you will be given an analgesic. The cost of the analgesics handed out this way will in time add up to enough to cure a few people of severe illnesses. So the health service, with its limited budget, is willing to leave a few people uncured of

their severe illnesses, for the sake of curing a very large number of headaches. (...) I have never heard anyone objecting to this use of analgesics.”<sup>18</sup>

I offer a two-fold reply to this objection. First, in the hospital context of Broome’s example, a defender of ARC can readily acknowledge reasons for establishing norms of treatment for patients that permit concern for the patients’ comfort and the alleviation of even small aches and pains. It is not hard to see how staff’s engagement with a patient’s well-being can improve their mood and enable better communication with the patient regarding their symptoms, both of which can aid in their recovery and thereby help alleviate some severe burdens. In a hospital setting, it may also be both more efficient and conducive to better relationships with patients to provide mild painkillers (which are, in any case, very cheap) for free rather than charge for them separately. Furthermore, citizens’ willingness to contribute their share of the state’s resources to the health system will be influenced by their experience of care in hospital. The resources available to the system may therefore be larger when treatment for small ailments is provided; if so, then such treatment does not draw on resources that could instead be used to avert severe burdens.

Second, more generally, the current practice in many health systems of using public funds to treat minor ailments may be consistent with ARC once we drop a simplifying assumption on which we have relied so far, viz. that all individuals in a condition have the same level of health-related well-being. Of course, this assumption is false. Many ailments that typically generate only a small burden sometimes generate large burdens. For example, onychomycosis can, in rare cases, lead to serious infections (CVZ 2012a, pp. 18-19; Mayo

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<sup>18</sup> See Hausman (2015, p. 213) for a similar objection to ARC. See Voorhoeve (2017) for a reply to Hausman.

Clinic 2015). These considerable burdens give rise to relevant claims to resources for treatment or prevention. While it may in principle be possible to focus resources only on cases which involve a significant risk of complications, the Dutch College for Health Insurance, which was tasked with developing a practical guideline for implementing the threshold policy, found that it would often be inefficient to attempt to distinguish minor ailments that will lead to complications from those that will not in order to focus resources only on the former (CVZ 2012a). If, as the Dutch College for Health Insurance argued, universal efforts at prevention or treatment of typically a minor ailment are often an efficient way of avoiding the burdens caused by its rare complications, then ARC recognizes a case for such efforts.

In sum, in evaluating whether public resources should be devoted to averting or alleviating an ailment, one ought to consider not the typical impact of an ailment, but the full range of burdens it imposes. An intervention can stake a claim for public funding just in case some of the burdens it alleviates meet or exceed the pertinent threshold. The intervention should receive funding if it alleviates these relevant burdens in a manner that satisfies an appropriate severity-weighted cost-effectiveness criterion. While this approach may justify devoting some public resources to typically minor ailments, it differs from familiar, straightforwardly aggregative approaches. By counting only the claims of those for whom a substantial health loss is at stake, it justifies fewer resources for typically minor ailments than such aggregative views do; it also avoids disrespecting those whose lives hang in the balance.



## Conclusion

How should a public body balance averting a multitude of lesser individual burdens against saving one life? I have argued that the following answer appears to have some public support and has a plausible rationale. First, no matter how numerous they are, the alleviation of individually small burdens cannot ground a claim on public resources that could instead be used to save a life. Second, the alleviation of moderate (or larger) burdens can ground such a claim, with very large individual burdens leading to especially strong claims. Still, ARC, the view that I have argued grounds these judgments, is a relatively novel theory that needs further scrutiny and development.<sup>19</sup> Moreover, many of the surveyed subjects apparently reject the idea that small burdens cannot stake a claim on public resources, and their stance is supported by well-established theories in distributive ethics. Nonetheless, I submit that ARC's apparent fit with a substantial share of people's case judgments and the attractiveness of its grounding render it worth taking seriously as one among several reasonable bases for the public allocation of health care resources.<sup>20</sup>

On this view, it follows that public resources should be directed towards the prevention or treatment of typically minor ailments only if doing so also prevents some moderate (or larger) individual disease burdens. Common, typically minor ailments such as onychomycosis therefore have a claim on public resources for the sake of the atypical

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<sup>19</sup> For discussion of some of its merits and (purported) demerits, see Temkin (2012); Kelleher (2014); Voorhoeve (2014; 2017); Gustafsson (2015); Badano (2016); Halstead (2016); Tomlin (2017); Schoenherr (2018); Brown (2018).

<sup>20</sup> I here use "reasonable" in the sense articulated by Daniels and Sabin (2008).

instances in which they impose large burdens. But by themselves, no number of healthy nails can trump a life.

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