

The relevance of personal characteristics
in health care rationing:
What the Australian public thinks and why

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ABSTRACT

This paper examines the preferences of the general public in Australia regarding health care allocation. Previous studies have revealed that the Australian public is willing to give priority to particular groups of patients based on their personal characteristics. In the present study, respondents indicated a clear preference for married patients over single, young adults and children over older adults, for carers, breadwinners, the employed over the unemployed, and poor over the rich. The present paper goes beyond previous efforts in attempting to *explain* these results. Variation in the answers according to broad economic and social beliefs across seven different scales influenced the pattern of the public's attitudes towards rationing preferences. The Principal Component Analysis (PCA) indicated that most of the items in our survey load quite strongly on seven components that explain or capture much of the variation. The strength of social preferences is related to the particular class of preferences.

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1 Introduction

With the exponential rise in publicly funded health spending throughout the developed world - shadowed by similar trends in newly industrialising nations - policy makers have accepted that rationing is inevitable. Faced with this inevitability, and the increasing trend to include the general public in decision making, the question arises whether the general public is prepared to accept that some groups of patients should get priority over others according to their personal characteristics. A useful survey of previous studies is provided by Dolan and Shaw (2001) and summarised in Olsen et al. (2003). Some twelve studies were identified from relevant bibliographic databases with the aim of exploring how respondents view the status of personal characteristics as a criterion for setting priorities in health care. The study by Olsen et al. (2003) is notable for its identification and classification of the ethical justifications revealed by survey respondents across the twelve empirical studies. The authors carefully distinguish between pecuniary and non-pecuniary utilitarian reasons for giving some individuals priority, whether the basis for respondent's reasoning is egalitarian, and the nature of desert and merit considerations. They distinguish, more generally, between characteristics that pertain to a patient's relations to *other people in society*, characteristics that relate to the patient *in relation to their illness*, and characteristics that are intrinsic "in a person's self physically, intellectually or attitudinally" (2003:1164). A subsequent expanded literature review by Dolan et al. (2005) summarised results from 64 empirical studies, but the conclusions, albeit representative of a greater range of subject areas, are not substantially different.

In this paper, we further examine the relevance of patient's personal characteristics as a basis for health care rationing. Data are drawn from the *Monash Health and Social Values Survey*. It differs from other studies in placing the emphasis on *explaining* the public's preferences. Just what is it that influences how and why an individual would ration health care according to some personal characteristic(s) of the prospective beneficiaries? Is it an issue that is pre-eminently political? (that is, is health care rationing a subset of overall social objectives?) or are these preferences primarily influenced by ethical or religious views? Or is it related to patterns of decisions inherently grounded in personality type? Perhaps the experience and extent of one's social networks – how one is situated in a community - has an effect on how an individual views the relevance of particular characteristics? What role do tolerance, duty and conscience play? Do respondents only consider the clinical and medical evidence or are other factors involved? The examination of the personal and demographic characteristics of respondents might be expected to answer some of these questions.

There is strong international support – both rhetorical and practical - for consulting the public on the question of how society’s limited health resources should be allocated. However, it is generally accepted that - due to the limited expertise, knowledge and time available to the general public, and the affect this may have upon preferences – that the “laundering” of social preferences must be an option. If this is to be justified it is important that the views of the public be understood. Are they based on widespread factual misunderstandings, conceptual confusion or prejudice? It is possible that discrimination on the basis of age or social contribution could be *defensible* on ethical grounds but be *motivated* by the intrinsic payoff from indulging one’s social or religious beliefs (Mortimer, 2003: 1663). However, if the views of the public are based on overt self interest or conceptual confusion, it signals there is a need for policy makers to look beyond public opinion to justify such decisions, and to do so explicitly. Trying to better understand the public’s views on health rationing is important to this endeavour.

2 Methods, Data Source and Participants

A. The Monash Survey and Questionnaire

The *Monash Health and Social Values Survey* was conducted during 2006 and 2007. Since the central aim of the survey was to enhance *explanation*, it was necessary to question a large number of individuals representing a wide spread of groups. Consequently, we sought to maximise overall survey numbers in order to allow the accurate inference of the views of different groups. In other words, the objective of establishing population parameter estimates was subsidiary to obtaining sufficient *numbers* from representative sub-groups. The survey aimed for maximum information from maximum numbers with minimal follow up per respondent, accepting that the burden of data to be collected may result in a small response rate. It was a feature of the project that it made a serious effort to enlist a *cooperative partnership* with potential respondents. Thus, randomly chosen members of the public were first sent a letter inviting them to participate in the survey, indicating that there would be two separate questionnaires several months apart. As it turned out, respondents were in fact asked to complete a third survey. This method facilitated *inter-survey modifications* of the design of the second and third questionnaires prompted by the nature of results from the first. Names were gathered from a public-domain telephone number database in the state of Victoria with a slight over-sampling of the rural population. The suburbs and towns chosen, however, reflected a balance of socio-economic groups. The intention of this approach was to increase the interest and cooperation of respondents and thereby increase the probability of reliable and valid results, and their agreement to participate in subsequent (linked) questionnaires. We rejected the “cold calling” approach on the basis that the public already suffers from over-exposure to questionnaire surveys.

Respondents had two main tasks. First, to test the relevance of patient’s personal characteristics, respondents were asked to choose between 28 pairs of patients based on 28 individual characteristics (e.g. smoker vs non-smoker), and to indicate their strength of preference on a Likert scale. The patients were described as being equally ill, alike in all other respects and needing life saving treatment. Respondents could also indicate whether they thought the patients should be treated equally. Second, adopting a different perspective, respondents were also asked to select members for an expert committee that would decide which patients would receive treatment. They were told this committee would decide which patients would receive a new drug capable of curing a form of terminal cancer.

Demographic and personal characteristics of the respondents were collected in order to analyse their relevance. All collected data was entered, checked and analysed using SPSS (version 15.0).

B. Participants

While care was taken to approximate the demographic characteristics of the adult Australian population, emphasis was directed at reducing standard errors by maximising overall questionnaire *numbers* in preference to exacting higher return *rates*. This method enabled more refined comparisons between survey sub-groups (e.g. males versus females), while at the same time not too grossly distorting either parameter estimates (where they are needed) or multivariate data analysis - in our case, Principal Components Analysis, where population representativeness is less of a problem. In total, 455 completed questionnaires were received. These provided answers to an average of 150 questions concerning with uncovering respondent's preferences with respect to the health system and its reform. The response rate was around 15%, reflecting the size of the task required of respondents. The response rate is considered in more detail in the Discussion section. The questions concerning particular health care rationing items were included on around two-fifths of the questionnaires, so most results are generalised from a further reduced size of 198 completed questionnaires. Of the 198 participants, 81 were male (41%) and 117 were female (59%). The mean age of the participants was 57 years (Median age is 58 yrs, and SD is 15.1). Most of the participants were born in Australia (84%) compared to overseas born (16%). The majority of participants had no degree (65%). Only 11% had postgraduate degrees and 24% were graduates. In terms of employment, 53.6% were working, while 44.8% were not in the labour force and 1.6% were unemployed.

C. Measures

Principal Components Analysis (PCA) was used to determine the latent factors in order to identify the pattern of responses. Mathematically, this enables *variable-reduction*, that is, the replacement of individual variables with factors (linear combinations of the variables). These variable groupings were then tested for reliability using the Cronbach's alpha test (usually an index of inter-correlation). The PCA algorithm extracts a maximum amount of variance (that is the highest correlation between the first putative factor – or Principle Component - and its component variables), and then leaves the remainder of the variance for the second and subsequent factors to extract. In this way attributes extracted that are common to items may be identified and, conversely, items identifying attributes extracted from the data. Statistical inference tests (t-tests) were also conducted on each of the seven scales to determine whether or not they are significantly related to the population characteristics measured by demographic, attitudinal and ideological variables.

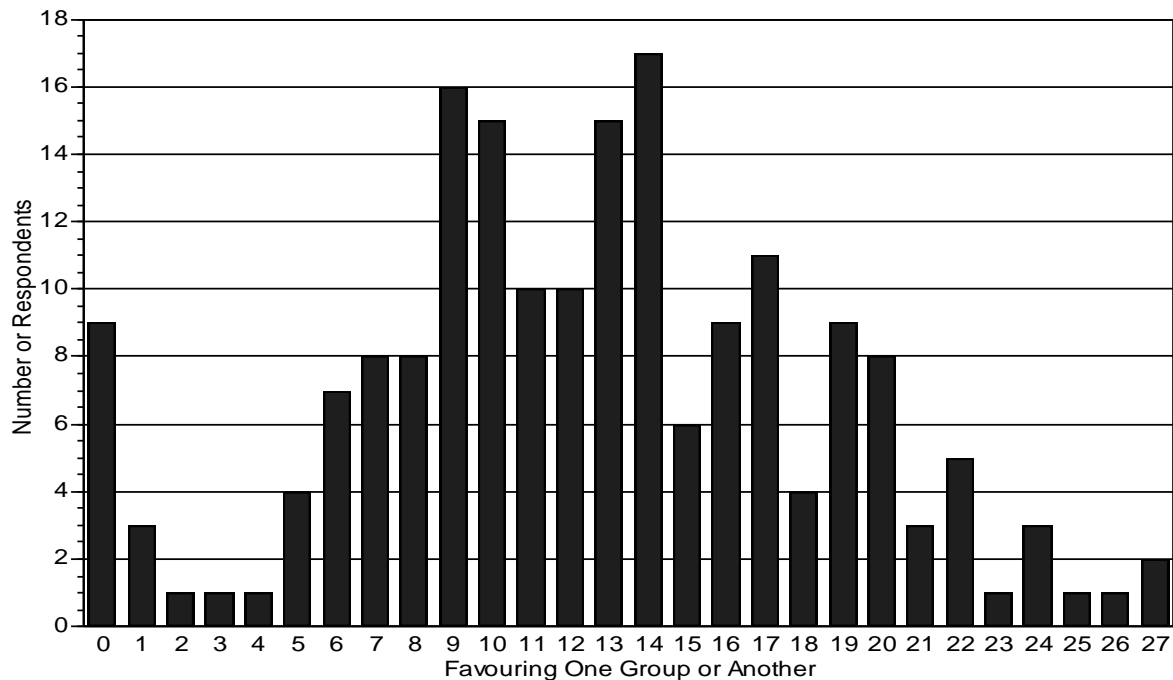
3 Results

A. Who Should Decide Which Patients Receive Treatment?

To begin with the second main task, concerning the composition of a committee that would decide which patients receive treatment, the preferred professions included a medical doctor (50%, n=199), followed by a medical ethicist (38%, n=187), a family member of a cancer patient who has already died (14%, n=139), an ordinary member of the public (9%, n=159), a nurse or other health professional (8%, n=180) and a social worker (8%, n=144). Those professions ranked top by less than five per cent of respondents included, a lawyer or judge, a representative of the government health department, a member of the clergy, a member of another social group,

a health economist and a member of parliament. A Chi-square test for independence suggested that there was no statistically significant gender difference between respondents' choice of particular social and professional groups ($P \leq 0.959$).

Figure 1. Number of items for which respondents were willing to favour one group over another (n=188)



The number of items (maximum 28) is shown on the horizontal axis; frequency counts on the vertical. Nine respondents (far left bar) gave consistent “equal priority” to all items, not willing to favour one group over another for any reason.

Regarding the second main task, the vast majority of respondents were willing to favour one group of patients over another on at least some occasions. The distribution of those who did not give equal priority is shown in Figure 1. It can be seen that respondents avoided a consistent “Equal Priority” response for most items. The majority of respondents (n=188) did in fact report their answer for *all 28 items*. Of these 188 respondents, only nine (just under five per cent) consistently followed the “Equal Priority” response. On average, respondents “discriminated” on 15.5 occasions (median = 15). Since 28 questions were asked this implies that on average respondents gave equal priority on 12.5 occasions.

B. Structure of Preferences

The result of PCA is shown in Table 1. A factors loading above 0.25 is shown. The matrix is reasonably “clean”, with high loading on one factor, and one loading close to zero. The first seven factors - safe living, life style, caring, gifted, sexuality, family and citizen - explain most of the variance and hence are selected for further analysis.

C. What the Public Thinks

Table 2 summarises the breakdown of respondents' choices for each of the 28 items. The order of the table follows the individual factors as identified in the PCA in Table 1. The results indicate a clear preference for married patients (over single); young adults and children (over older adults and adults respectively); for carers; breadwinners; the employed (over the unemployed); for poor (over rich); community contributors; law-abiding citizens (over criminals); and heterosexuals (over homosexuals). Further, respondents would give a lower priority to those perceived as "self-harmers" - namely smokers, individuals with unhealthy diets, those who take drugs, those who rarely exercise, and those who over-consume alcohol.

As can be seen from Table 2, however, the strength of these preferences is often related to the particular class of preferences, particularly the "Safe Living" factor. For example, 83.7% of respondents discriminated against drug addicts and only 13.9% would give them "equal priority". Recreational drug users and alcoholic persons also received equal priority of treatment by one in four (26.1%) and one in five (22.1%) respondents. Likewise, persons with a serious criminal record attract a little over a quarter of respondents who would accord them equal priority of treatment. A significant proportion of respondent preferred persons with healthy diets (48.3%), productive and active persons (38.2%), and good community contributors (29.7%). More pronounced is the preference for non-overweight persons (56.7%).

Similarly, the survey shows comparable preferences for "Carers" - either those caring for elderly relatives or for children (over and against those currently "non-carers"). The remaining three factors also indicate clear preferences for one group over another, but the strength of these is weaker. Preference was also given to gifted or brilliant individuals (Factor 4) over others. Fifteen per cent of respondents, for example, would favour a patient who is a "brilliant scientist" over a production line worker (though note that 83% gave equal preference). Also, 34% favoured someone who loves life over a depressed and negative person. With regard to sexuality (Factor 5), some 33.2% of respondents favoured a "sexually conservative" individual over a "sexually promiscuous" one. The sixth factor is a more vague and variable group ("Family"), covering preferences for young adults over older adults (57.2% for the former), children (66.3%) over adults, and married persons (23.8%) over singles. Finally, a pronounced preference was revealed for an Australian citizen over a refugee (26.4%). Also, the tendency toward equal priority was stronger in the case of a health professional versus another professional (and a professional versus an unskilled labourer).

The factors identified in the Principal Components Analysis were checked for coherence using the Cronbach's alpha - a form of inter-correlation reliability analysis. Table 3 reports these (standardized) Cronbach statistics (column 4) for each of the scales (columns 1 and 2), together with average (column 5) and minimum correlation coefficients (column 6). The asterisked items in Table 2 indicate those that were dropped to compile the respective scales. The number of items included in each scale is also shown in column 3 of Table 3.

Table 1. Factor Matrix for Varimax Rotated Principal Component Analysis on the 28 Items

Item	Factor 1 Safe living	Factor 2 Lifestyle	Factor 3 Caring	Factor 4 Gifted	Factor 5 Sexuality	Factor 6 Family	Factor 7 Citizen	Factor 8 Occupation	Factor 9 Professn'l
Drug Addict - Never Touched Drugs	0.842								
Alcoholic Person - Non-Alcoholic	0.795	-0.287							
Drug Trafficker - Law-abiding Citizen	0.774								
Smoker - Non-Smoker	0.758						-0.325		
HIV/AIDS Person - AIDS-free Person	0.749								
Recreational Drug User - Non-Drug User	0.698								
Person With Serious Criminal Record - No Criminal Record	0.544				0.441				
Person With Unhealthy Diet - Person With Healthy Diet	0.335	-0.741							
Productive and Active - Leisurely and Unproductive		0.726	0.252						
Person Who Exercises Regularly - Rarely Exercise		0.724							
Good Community Contributor - Non-Contributor		0.565		0.311	-0.324				0.380
Seriously Overweight - Not overweight	0.479	-0.508							0.349
Someone Caring For Elderly Relative - Not Currently a Carer			0.869						
Someone Caring For Children - Not Currently a Carer			0.848			0.258			
Sole Breadwinner - Not Sole Breadwinner			0.544		-0.326				
Brilliant Scientist - Production Line Worker				0.842					0.282
Brilliant Pianist - Untalented Citizen				0.735				0.436	
Someone Who Loves Life - Depressed and Negative Person				0.600			0.310		
Homosexual - Heterosexual					0.798				
Sexually Promiscuous Person - Sexually Conservative	0.253	-0.295			0.666				
Young Adult - Older Adult						0.730			
Child - Adult						0.669			
Married Person - Single Person					-0.293	0.650			
Australian Citizen - Refugee	-0.254						0.752		
Poor Person - Wealthy Person							0.659		
Employed Person - Unemployed Person				0.253	0.295		0.564	0.398	
Professional Occupation - Unskilled Labourer								0.884	
Health Professional - Other Professional									0.810

Table 2. Likert response breakdowns to the 28 items in “principal components analysis” order

Factor	Item	Strongly Favour (%)	Moderately Favour (%)	Equal Priority (%)	Moderately Favour (%)	Strongly Favour (%)	
1	Drug Addict	1.4	1.0	13.9	33.7	50.0	Never Touched Drugs
1	Alcoholic Person	0.5	1.5	22.1	37.3	38.7	Non-Alcoholic
1	Drug Trafficker	1.0	1.9	13.0	20.8	63.3	Law-abiding Citizen
1	Smoker	1.0	2.9	20.3	31.4	44.4	Non-Smoker
1	HIV/AIDS Person	2.9	1.9	30.3	28.4	36.5	AIDS-free Person
1	Recreational Drug User	0.5	2.9	26.1	31.9	38.6	Non-Drug User
1	Person With Serious Criminal Record	1.0	1.0	26.4	36.5	35.1	No Criminal Record
2	Person With Unhealthy Diet	1.0	0.5	50.2	33.8	14.5	Person With Healthy Diet
2	Productive and Active	15.0	23.2	58.0	3.4	0.5	Leisurely and Unproductive
2	Person Who Exercises Regularly	7.8	23.5	66.2	1.5	1.0	Rarely Exercise
2	Good Community	11.2	18.5	69.3	0.0	1.0	Non-Contributor
2	Seriously Overweight	1.0	2.4	39.9	36.5	20.2	Not overweight
3	Someone Caring For Elderly Relative	13.9	26.9	52.4	4.8	1.9	Not Currently a Carer
3	Someone Caring For Children	28.2	31.6	34.0	2.4	3.8	Not Currently a Carer
3	Sole Breadwinner	21.3	24.2	49.3	4.3	1.0	Not Sole Breadwinner
4	Brilliant Scientist	5.3	9.7	83.0	1.0	1.0	Production Line Worker
4	Brilliant Pianist	1.5	6.9	89.7	1.0	1.0	Untalented Citizen
4	Someone Who Loves Life*	10.8	23.5	63.2	1.5	1.0	Depressed and Negative
5	Homosexual	0.5	1.9	73.4	10.1	14.0	Heterosexual
5	Sexually Promiscuous Person	0.5	1.4	64.9	17.8	15.4	Sexually Conservative
6	Young Adult	29.3	27.9	38.5	1.9	2.4	Older Adult
6	Child	41.8	24.5	29.3	3.4	1.0	Adult
6	Married Person	11.2	12.6	75.2	1.0	0.0	Single Person
7	Australian Citizen	12.7	13.7	72.2	1.0	0.5	Refugee
7	Poor Person*	3.9	8.8	84.9	1.5	1.0	Wealthy Person
7	Employed Person	2.9	6.3	88.9	1.0	1.0	Unemployed Person
8	Professional Occupation*	2.0	3.4	90.7	2.0	2.0	Unskilled Labourer
8	Health Professional*	6.8	6.8	84.1	1.0	1.4	Other Professional

* Those marked with an asterisk were not included in scale formation since they did not highly correlate with other items in the factor.

Table 3. Reliability of the seven scales

Scale	Moniker	No. of Items	Stand. Cron	Ave Corr	Min Corr
1	Safe Living	7	0.8862	0.5266	0.3550
2	Lifestyle	5	0.7728	0.4048	0.2593
3	Care	3	0.7858	0.5501	0.4418
4	Gifted	2	0.7685	0.6240	0.6240
5	Sexuality	2	0.7077	0.5476	0.5476
6	Family	3	0.5524	0.2914	0.2049
7	Citizen	2	0.6239	0.4534	0.4534

D. Health Care Rationing: Identifying the Sources of Influence

Table 5 provides a matrix showing the relationship between the personal characteristics of respondents and the seven health care rationing scales. Nine statistically significant groups are identified: (i) “genetic and background demographics”, (ii) “life way demographics”, (iii) “education, income and professional demographics”, (iv) “voting intentions” - i.e. choices regarding government spending priorities and social objectives, (v) “subsidisation privatisation”, (vi) “social welfare”, (vii) “personal freedom and tolerance”, (viii) “general religiosity”, and (ix) “personal religious views: design and creation”. The statistically most significant results are summarised in Table 4. The figures in Table 4 indicate the number of groups that report statistically significant differences for each of the health rationing scales. For example, in the case of health rationing preference on the basis of “sexuality” (scale 5), of the ninety tests, 24 report statistically significant differences. Only six pairs of groups reported statistically significant differences in the case of the “caring” factor which remains unexplained. Age, social objectives, duty, and social capital (networks) appear to have great influence in the health rationing preferences of the general public.

Table 4. Summary of Statistically significant group differences for each of the seven scales

Scale	Safe Living (1)	Life Style (2)	Caring (3)	Gifted (4)	Sexuality (5)	Family (6)	Citizen (7)
Number of Stat Sig Differences	17	12	6	9	24	9	11

From Table 5, five key clusters of factors can be identified that contribute to explaining the health care preferences of the general public. These are: age, marital status, educational level, social welfare, and general religiosity. Persons born between 1910 and 1945, compared with those born after 1945, gave preference to patients who are primary carers of either children or the elderly (scale 3). Married respondents were more likely to favour patients with scales of safe living (1), life style (2), sexuality (5) and family (6) over divorced or separated people. Similarly, with regards to scales of safe living, life style, sexuality and citizen, preferences were given by high privatisation/government ownership over low privatisation/ownership, and high hard work and self-sufficiency patients over low self-sufficiency patients respectively. In contrast, with regard to “voting intentions” and “personal freedom and tolerance”, right-wing, politics, economy and social welfare, and people with low tolerance for sexual freedom in society, were more likely to favour patients with scales of 1,5,7 and 1,2 and 5 respectively over their counterparts: left-wing and high tolerance for sexual freedom respectively (Table 5). In all cases a significant difference is found between groups at the 0.05 level.

Table 5. Matrix of statistically significant differences between groups for seven health-care rationing scales (selected groups only)

Variable 1	Variable 2	Safe Living (1)	Life Style (2)	Caring (3)	Gifted (4)	Sexuality (5)	Family (6)	Citizen (7)
1.Genetic and Background Demographics								
Born 1910 to 1945	v All Others			+		+		
Born 1946 to 1964	v All Others				-	-		
Born 1965 or After	v All Others							+
2.Lifeway Demographics								
Married	v Divorced or Separated	+	+			+	+	
3.Education, Income and Professional Demographics								
High Education (University Level Qual)	v Low Education (Secondary/Trade)				+	-	-	
4.Public Issues, Economic and Political Outlooks: Voting Intentions								
Coalition Voting (Liberal or National)	v Other Voting	+				+		
Left-Wing: Politics, Economy and Social Welfare	v Right-Wing: Politics, Economy and Social Welfare	-				-		-
5.Public Issues, Economic and Political Outlooks: Subsidization Privatization								
High Preference Privatization/ Government Ownership	v Low Preference Privatization/ Government Ownership	+	+			+		+
6.Public Issues, Economic and Political Outlooks: Social Welfare								
High Hard Work and Self-Sufficiency	v Low Hard Work and Self-Sufficiency	+	+			+		+
7.General Moral and Social Order Outlooks: Personal Freedom and Tolerance								
High Tolerance For Sexual Freedom in Society	v Low Tolerance For Sexual Freedom in Society	-	-			-		
High Tolerance For Social Drug Use	v Low Tolerance For Social Drug Use	-			+	-		
8.Personal Religious Views: General Religiosity								
Little Importance to Religious Faith	v High Importance to Religious Faith					-		+
High True Significance: Character, Achievement, Deeds	v Low True Significance: Character, Achievement, Deeds	+	+					
9.Personal Religious Views: Design and Creation								
High Belief in the Fact of Evolution	v Low Belief in the Fact of Evolution						+	+
High Belief in Social Darwinism	v Low Belief in Social Darwinism				+		+	

Notes: Each of the seven scales was formed by averaging a number of individual questionnaire items. The scales run from high (maximum value 5) to low (minimum value 1). Scale 1: favours those patients who engage in safe living practices (e.g. they never touch drugs, are law-abiding, AIDS-free, and have no criminal record). Scale 2: favours those who look after their health (are active and productive in life, exercise regularly, contribute to their community). Scale 3: patients who are primary carers of either children or elderly relatives. Scale 4: patients particularly gifted in science or music. Scale 5: sexually conservative (heterosexual or monogamous). Scale 6: Family scale (favour patients who are younger adults over older adults; children over adults; married over single). Scale 7: citizenship scale (favour citizens over refugees; poor person over the rich; employed person over unemployed). The use of a + or – sign in the seven columns on the right-hand side of this table refer to statistically significant differences (at least at the 0.05 level of significance in t-tests) between particular groups. These groups are listed in Columns 1 and 3 on the left-hand side. If the sign is positive, the group in the first column scored higher on the scale (and statistically significantly so); if negative, the group in the first column scored lower than that in the third.

4 Discussion

A. Study Design

Within the constraints of survey costs, a trade-off always looms between *response rates* and *sample numbers* (cf. Teitler et al. 2003). It is normative practice in social science surveys to aim for high response rates, but it must be noted that the literature is ambivalent regarding what is an “acceptable” response rate (Denscombe 2003; Burns 2000; Jackson 1995; Merkle and Edelman, 2002). Earl Babbie (author of a popular social research methods textbook), for example, tells us that “a response rate of at least 50 percent” is adequate (60 percent is “good”; 70% “very good”), but then notes: “you should bear in mind, however, that these are only rough guides; they have *no statistical basis*” (Babbie 1995: 262; again, emphasis added). Indeed, the opinions of the professional survey community (and the social science methodology text-book writers) are somewhat at odds with that of the statisticians (cf. Groves 1987; and especially the collection of essays in de Vaux 2002). Neuman’s summary should be noted: “survey researchers disagree about what constitutes an adequate response rate. Adequate is a judgment call” (Neuman 1991: 247).

In the health and epidemiological literature extremely high response rates are deemed essential, but this relates, firstly, to the peculiar nature of this data (it does, generally, differ from social science data), and secondly, because of the prevalence of low sample sizes (an unavoidable characteristic of some low-incidence health studies). The health economics and general health care literature has apparently followed the trend of their epidemiological colleagues in this respect – sometimes to the point of enforcing erroneous methodologies upon scholarship (Price et al, 2004) - but the obvious research program constraints enforced by lower sample numbers are not always seen as part of the “cost”.

With regard to our data collection, it is worth mentioning here that some demographic bias may have occurred in our survey sample. In fact, the survey attracted more women on average, more in older age groups (and hence also NILF (not in labour force) individuals), and has under-sampled immigrants and non-degree holders. It might be expected that such a questionnaire as ours, concentrating on matters possibly more relevant to older, settled folk, may not gain the same response from the young. Also, possibly reflecting the degree of difficulty (and interest) in some questionnaire items, it is noticeable that more professionals than expected have completed the survey.

B. Toward Typology

A number of clear factors or Principal Components (PC) emerge from the analysis, which represent fairly obvious groupings. The seven items that have to do with “self-harm” (or the opposite of “safe living”) such as substance abuse, together with criminal behaviour, group themselves together on the first component “safe living”. Interestingly, the HIV/AIDS item is also found here indicating that respondents associate a “self-harm” element with the condition. The second PC labelled “life style,” a less blameworthy group of “self-harmers”, includes characteristics related to healthy diet, exercise, productive and active living, and community contribution. A third grouping is described as “carers”, those looking after the elderly or children. “Sole breadwinners” are also grouped on this scale. The fourth factor includes giving preference to “brilliant scientists” (over production line workers) or “brilliant pianists” (over the untalented). “Someone who loves life” versus a “negative and depressed person” is also included in this group, though it is not highly correlated and therefore is not included for further analysis. Attitudes to a patient’s sexuality and sexual habits formed the fifth factor (“sexuality”). This scale

manifested sharp differences between particular demographic groups. Finally, two more groupings covering family, age and marriage status (“family”, factor 6) and poverty and citizenship status (“citizen”, factor 7) were also revealed, though the inter-correlation of items was not as pronounced as for the first five factors.

The analysis of PCA using Likert scales reveals that quite a high proportion of respondents provided equal priority: 72 to 89% to the “citizen” group; 65 to 73% to the “sexuality” group; 63 to 90% to the “gifted” group; and 50 to 69% to the “lifestyle” (except overweight item) group. It is important to note that “safe living” also attracts a strong proportion (13 to 30%) of respondents rejecting equal priority with regard to treatment.

With regard to preferences, significantly large proportions of respondents believe that priority ought to be given to those patients who are already in demanding caring roles in society – namely, individuals caring for children or elderly relatives. The fact that so little explanation is forthcoming (in either clear demographic or ideological terms) indicates that such preferencing is community wide, or to put it another way, that it commands such support across a wide spectrum of the Australian community that it is probably a well-accepted social characteristic.

By contrast, giving preference to those who are heterosexual and/or monogamous and conservative in their sexual behaviour is a highly contentious and divisive issue within the community. The fact that some 24 pairs of demographic or ideological positions (more than any other scale) are split regarding whether those patients with conservative sexual habits should be a higher priority for health care is noteworthy. It divides demographic groups according to age, gender, marriage, work status, and education; and a plethora of ideological and belief groups such as those relating to politics, economics, and Kantian ethics. Less surprisingly, it also divides religious belief from non-belief.

The examination of respondents’ attitudes towards patients and the analysis of PCA reveal that there are significant differences between individuals and groups in terms of their preference for different groups of patients. It can identify five key clusters of factors that signal explanation for health care preferencing among the general public.

Firstly, the main genetic demographic is *age*, and it affects, in varying degrees, at least four of the preferencing scales (Caring; Gifted; Sexuality; and Citizenship). Nearly half of all respondents in the “Born 1910 to 1945” bracket favoured a patient who is the primary carer for an elderly person whereas in the younger age group (born in 1965 or later) only 3 in 10 would favour these carers. In the case of the “Sexuality” scale, around 45% of the older respondents would preference patients who are sexually conservative. Age also affects whether gifted patients should be preferred over the less-gifted. In this regard, 13% of older respondents and 10% of young respondents favoured a patient who is a “brilliant pianist” over one who is a “production line worker”. For the Baby Boomers (those born from 1946 to 1964 inclusive), the preferencing drops to only 4%. Similarly, both the older (20% of these respondents) and Generation X groups (23%) would give preference to a “brilliant scientist” over a “production line worker”, a level which drops markedly for the Baby Boomers to less than one in ten. It is the Generation X group that would significantly favour an employed patient (one in five, in fact) over the older cohort (8%) and Baby Boomers (6%).

Secondly, *married* respondents are considerably different from *divorced or separated* respondents. The difference is dramatic either side of the divide between those who have and those who have not experienced marriage breakdown. It affects four of the seven preferencing scales. An overwhelming majority of the married group would favour patients who have never

touched drugs (in preference to a drug addict), the preferencing proportion among the divorcee and separated group is only 50%. Eighty per cent of the married group would preference a non-alcoholic patient over an alcoholic – almost twice the rate among the divorced and separated (44%). Over half of the married group would favour patients who look after their bodies by eating healthy diets, while the preferencing rate in the other group plummets to 17%. Regarding the sexuality scale, more than three times the married group (40%) would preference a sexually conservative person over a promiscuous patient (11%).

Educational level is identified as a third important factor. It affects largely the non “blameworthy scales”, including the “gifted”, “sexuality” and “family” scales. About 15% of highly educated respondents would preference a “brilliant pianist” over a “production line worker” (versus only 4% in the less-education demographic). Likewise, nearly one in five of the educated group would preference a patient who is a “brilliant scientist” (versus one in ten of those without a university qualification). Nearly twice as many in the lower education demographic (29%) would preference a heterosexual over a homosexual for health care than their more educated counterparts (16%) – though this result is strongly affected by age level as well.

Fourthly, differences in health-care preferencing cluster around an individual respondent’s *general economic and social welfare beliefs*, particularly as these are mediated through political positions and voting (left-wing/right-wing orientation), attitudes to privatisation, and measurement scales concerned with hard work, self-sufficiency, and income distribution. Differences were apparent on various economic and social beliefs across at least four (and possibly more) of the seven scales. Most respondents who tended to support the Coalition party would favour the preferencing of medical care to patients who do not use recreational drugs. The rationale for this pattern is somewhat more focused when we consider another scale: an averaging of individual items concerned with hard-work and self-sufficiency. The respondents at the “high” end of the self-sufficiency scale, by contrast with those at the lower end, would give preference to patients who eschewed recreational drugs. These respondents, populating the conservative end of the political spectrum, likewise found sexual behaviour a cause for preferencing. Around 43% of Coalition voters would preference sexually conservative patients (versus 28% of Labour supporters and only 9% of Greens voters). Put another way, 34% of those on the political Right would preference heterosexuals against only 14% of those on the Left. Again, 31% of those on the Right would favour Australian citizens over refugees, as would only 16% of those on the Left.

Fifth, and finally, there is a cluster of attitudes around morality and religion as a factor in preferencing. When it came to the “blameworthy scales” – those concerned with preferencing according to the safe living scale and the life style scale - religiosity, of itself, did not appear to make a great difference: neither the overall scale for safe living, nor any of the seven items that made up that scale, indicated any statistically significant differences between those who reported high importance for religious faith, and those who did not. Likewise, there were no statistically significant differences between these two groups for either the life style scale, or any of the five component items that make up the scale. Religiosity is clearly neutral.

If it is not religiosity as such, which aspects of morality appear to affect the propensity to preference patients according to personal characteristics? The answer is threefold. Firstly, it resides in those groups that can be distinguished by their *tolerance for social freedoms in society* (especially sexual freedom and drug use – which are partly tautological, since the “blameworthy” scales include items regarding equal priority for drug users). Those respondents who reveal a low tolerance for sexual freedom, for example, are more likely to preference patients who are “law abiding citizens” compared with drug traffickers than their counterparts who exhibit a high tolerance for sexual freedom.

Secondly, the “moral stance” factor centres on views regarding a respondent’s *philosophy of personal significance and worth*, views grounded, more particularly, in character, achievement, and good deeds as *the basis* of such human worth. This is of interest again for the religiosity issue, because a (largely) competing view – namely, that humans have worth as being made in the image of God – does not rate as a factor in determining preferencing.

Thirdly, we also tested for a module of items concerned with belief in overall *design, evolution and Social Darwinism*, and these provide the third leg of the religion and morality aspect. Three scales - “Gifted”, “Family”, and “Citizenship”- were affected. While 13% of those who could be termed “Social Darwinian” in their philosophical outlook would preference a brilliant pianist over a production line worker, and one fifth of the Darwinians would preference a clever scientist (over a production line worker), the contrasting proportions in the non-Darwinian group were, respectively, only 4% (for pianists) and 8% (for preferencing scientists). Similarly, those who rated highly in a scale measuring non-intelligent-design philosophy (in this case, high support for the fact of evolution) would be more inclined to preference Australian citizens over refugees (36%) as opposed to those who reject the factuality of evolution (just 16%).¹

5 Conclusions

It is clear from the evidence presented above that the general public does not have a problem with preferencing patients for medical treatment according to their personal characteristics. There is evidence, however, that the general public favours “me” or people “like me” over anyone else! This is true in the favouring of medical treatment for carers among the elderly, in the reluctance to preference sexually conservative patients among the young, and in the preference for “brilliant” individuals among the highly educated. By contrast, 42% of smokers favoured non-smokers for medical treatment as against 81% of non-smokers. The fact that 42% of smokers are willing to relegate themselves second in the queue indicates that our respondents are also not entirely self-focused. In at least this case they accept that their own possession of a vice or bad habit is grounds for reduced priority.

Nevertheless, one lesson from the study is this. Even when members of the public are asked to adopt a social perspective as opposed to a self-interest perspective – when they are asked to judge for others - a careful analysis of responses indicates there is still likely to be a large self-interest component in the views expressed. The very name “caring for others perspective” (Nord, 1999: 8-12) suggests that when respondents are allowed to adopt a social perspective on priority setting – when they are allowed to express their ethical views – these will inevitably reflect a concern with social justice. The results of the present study suggest that this assumption must be treated with caution. As noted previously, it does not follow that views that are motivated by self-interest are necessarily indefensible on ethical grounds. However, it does suggest the need for close scrutiny of those views, for more sophisticated studies (perhaps utilizing focus groups, that concentrate on reasons, help respondents to become clearer on their own views, and require public justification), and the need for ethical analysis of the results. This iterative process of public consultation, ethical analysis, and further testing, is sometimes called “Empirical Ethics” (Richardson & McKie, 2007).

¹. There is also some evidence that Social Capital (community networking) may also figure highly as an explanation. Unfortunately the sample size here was too low to be sure, but some confirmation may come with the next stage of the survey research and the inclusion of new questionnaires with an extended suite of attitudinal demographics.

What is clear is that individuals at different stages of life and with different outlooks preference *different types of patients* according to particular characteristics. It is also apparent that different groups of individuals may preference *for quite different and multiple reasons*. It is our hope that this paper will contribute to a better understanding of the views of the public – particularly their origins and interconnections.

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