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Equity and efficiency preferences of health policy makers in China - a stated preference analysis

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ABSTRACT

Background
Macroeconomic growth in China enables significant progress in health care and public health. It faces difficult choices regarding access, quality, and affordability, while dealing with the increasing burden of chronic diseases. Policy makers are pressured to make complex decisions while implementing health strategies. This study shows how this process could be structured and reports the specific equity and efficiency preferences among Chinese policy makers.

Methods
A total of 78 regional, provincial and national level policy makers with considerable experience participated in a discrete choice experiment, weighting the relative importance of six policy attributes describing equity and efficiency. Results from a conditional logistic model are presented for the six criteria, measuring the associated weights. Observed and unobserved heterogeneity was incorporated and tested in the model. Findings are used to given an example of ranking health interventions in relation to the present disease burden in China.

Results
In general, respondents showed strong preference for efficiency criteria i.e. total beneficiaries and cost-effectiveness as the most important attributes in decision-making over equity criteria. Hence, priority interventions would be those conditions that are most prevalent in the country and cost least per health gain.

Conclusion
Although efficiency criteria override equity ones, major health threats in China would be targeted. Multi-criteria decision analysis makes explicit important tradeoffs between efficiency and equity, leading to explicit, transparent and rational policy making.

1. INTRODUCTION

China's economic growth enables substantial progress in public health and health care. While the poverty rate significantly dropped, educational standards improved, under- five mortality rates continue to decline as well as the undernourishment rate, the country is facing substantial challenges to serve its population of 1.3 billion with equitable, affordable and high quality health services (Liu and Griffiths 2011). Past and present reforms address low efficiency in health care delivery, inequity in utilization and access to health services, and cost escalation. China's "The Healthy China 2020 Reforms", aims at building a more harmonious society with universal health insurance coverage through the basic social medical insurance system (Li et al. 2011).

Despite increased resources - an unprecedented boost in per capita health expenditure - the advancing systems shows impaired improvements in aggregate outcomes: (I) a significant growth in 'out of pocket' expenses (Alcorn and Bao 2011, Langenbrunner and Somanathan 2011), (II) the stalled transition from publicly financed healthcare system to partial privatization of public or collective sectors, inadequate cost control and rising prices without any efficiency gains. Access to care is uneven, mainly determined by ability to pay, and the public hospitals have no options but to adopt cross-subsidy revenues by supplying more profitable, less appropriate services (Liu 2002, Alcorn and Bao 2011). Lastly, (III) in spite of China's earlier high levels of health outcomes prior to economic liberalization, presently, the nation faces large and widening health inequity in healthcare coverage, performances, spending and access. There is a major urban-rural divide in the coverage of health care services (Liu et al. 2007).

After lifting many millions of people out of poverty, the country faces rapid urbanization, very rapid ageing of the population, with concomitant increases in unhealthy behaviors and pollution, contributing to a sharp rises in chronic disease risks, especially among the poor and the oldest. There seem to be a need for a more evidence-based health development strategy, which prioritizes basic health care services and strengthens services at the primary level (Alcorn and Bao 2011, Liu and Griffiths 2011). A selection of priority areas has become essential in these new circumstances of health care reform in China. Often, in these environments, the rationales adopted are ad-hoc, based on political motives and on heuristic or intuitive approaches to simplify complexity but also compromising transparency, equity and fairness (Baltussen and Niessen 2006).

Stated preference techniques, in which the weight of different criteria can be derived from stakeholders' responses to hypothetical scenario or questionnaires related to preferences are increasingly being used for outcomes research in health care and in medicine as a means to identify and evaluate the relative importance of aspects of health outcomes and health care service. We term this a multi criteria decision analysis (MCDA) approach, which uses discrete choice experiments adopted from the field of market research. MCDA allows for a combination of efficiency criteria with societal values (Green and Gerard 2009, de Bekker-Grob et al. 2010, Noorani et al. 2007, Ryan et al. 2008; Mirelman et al, 2012). Equity versus efficiency trade-offs are a major issue when

prioritizing healthcare is requested. China has to reconsider access, quality, and performance within an ageing population exposed to severe risk factors and those prone to chronic diseases; equity and efficiency are likely to conflict in this environment. There is no consensus on methodologies on how to balance those two criteria so that the trade-off has often led to inconsistent decisions in the development of health policy (Baeten et al. 2010, Jehu-Appiah et al. 2008, Williams and Cookson 2006).

In this paper MCDA is used to elicit preferences of Chinese policymakers, with the objectives of evaluating their willingness to trade off equity with efficiency using multiple criteria (Peacock et al. 2009). Our focus is on Chinese decision makers and not the general public, as they are the primary actors with a mandate to address the present multifaceted complexities of an ever changing health care system. Here, they are in the position to value various aspects of healthcare interventions and address critical questions within the challenging social and economic policy balance. To illustrate how tradeoffs between efficiency and equity can be accounted for in priority setting, a composite league table is elaborated including a comprehensive set of chronic disease interventions (World Bank, 2011).

2. MATERIAL & METHODS

2.1 Discrete choice experiment

Discrete choice experiments (DCE) is a decomposition method, that uses a survey to elicit respondent's preference based on their choice among alternatives sets presented in a questionnaire where each set of choice consists of a bundle of criteria that describe the scenario in question. Each criterion varies over a range of defined levels. Analysis of the options chosen by respondents in each scenario reveals the extent to which each criterion is important to the decision and how tradeoffs are made among them. In the current study, sets of choices refer to some hypothetical interventions, and criteria are general for priority setting in health care decision-making (Green and Gerard 2009, de Bekker-Grob et al. 2010, Ryan et al. 2008).

Identifying context-relevant criteria and their levels is generally the first step. As a main rule, criteria must be relevant to the stated research question and be selected to assure completeness, feasibility, and mutual independence. A core set of preference criteria was used as attributes based on two literature reviews (Youngkong et al. 2009,Noorani et al. 2007) and adaptations proposed in focus groups of health programmers and experts within the initial three national settings. This was in Nepal, Ghana, and a formal working session with 28 leading HTA experts at HTAi conference 2008 (Mirelman et al. in a five country study; Baeten et al. on breast cancer; Baltussen et al, 2006 and 2007 on Nepal and Ghana). Six attributes were identified that represent key criteria used in health decisions and these have been included in the subsequent studies (Mirelman et al. 2012) and were confirmed in a global survey (Tanios et al., 2014). While the experimental context is not China specific multiple consultations with key informants (MoH, Planning Commission, College of Preventive Med, World Bank, WHO country office) on the use

of policy criteria (Human Development Unit, 2011) and a small focus group discussion with policy researchers showed a general agreement with the criteria/attributes. The wording and presentation of the level values used have been adapted to fit each country and ensure cross-country comparability. The six criteria used in this experiment were: 1) 'severity of disease' (i.e. capturing prioritization of severely ill populations as a result of a greater need for health care and diminishing marginal utility of health), 2) 'age of target group' (i.e. capturing different age preferences based on ethical or economic considerations), 3) 'willingness to subsidize others' (i.e. capturing that access to healthcare services will be guaranteed through collective pooling e.g. subsidies in order to reduce individuals financial burden), 4) 'number of potential beneficiaries' (i.e. capturing differences in interventions' target population size and overall impact for society), 5) 'individual health benefits' (i.e. capturing comparisons of interventions of equal total effect but targeting few individuals with large impact versus many individuals with small impact) and 6) 'cost-effectiveness' (i.e. capturing prioritization according to cost-effectiveness information, especially given budgetary considerations). The equity criteria include the three first ones while the latter three represent efficiency criteria. Levels and definitions are detailed in Table 1.

2.2 Experimental & instrument design

For the questionnaires submitted to respondents, the chosen attributes are grouped and assigned into sets of scenarios, with each containing the same attributes but with differing levels across scenarios. We used an existing questionnaire reported earlier for other countries (Baltussen et al. 2006, Koopmanschap et al. 2010, Mirelman et al, 2012). On the basis of five attributes at two levels and one attribute at three level yields 96 possible unique combinations for inclusion in the full factorial experimental design, representing all possible combinations. To facilitate administration and to avoid the use of blocking, Sawtooth Software was used to select 32 unique alternatives from the full factorial design which led to 16 forced-choice paired scenarios ensuring level balance and near orthogonality. Such designs have good statistical and survey efficiency and allow for estimation of all main effects within the DCE questionnaire (Baltussen and Niessen 2006; Mirelman et al, 2012). The administered survey is given in Appendix A.

The respondents of this experiment included a sample of mainly experienced policy makers and health professionals involved in health care decisions making, programme management and public health provision. In order to allow respondents to represent the opinions from different administrative levels, respondents have been recruited from every administrative level, i.e., national, provincial, as well as prefectural level. Four sessions with policy makers in health or health professionals were organized at workshops or conferences, and personal interviews were added. Officials were recruited mainly through snowballing. In total, 78 respondents were recruited and participated. All had substantial background in the concepts and praxis of policy decision making, and were familiar with economic evaluation studies. All returned a valid completed questionnaire. Socio-demographic information was also collected to allow testing for systematic differences in preferences (i.e. preference heterogeneity) based on these characteristics.

2.3 Data collection & analysis

All levels for all criteria were qualitative and data were dummy coded. The observed sources of utility can be defined as a linear expression in which each attribute is weighted by a unique parameter to account for that attribute's part-worth utility. Estimated parameters indicate the sign of the effect of a variable on the probability of selection of an intervention, the absolute value of the coefficients denote the relative importance of particular levels of a criterion in comparison to other levels of all other criteria. Criteria with higher probability will have higher chances of influencing the selection of the interventions (Ryan et al. 2008, Mangham et al. 2009).

Both unobserved and observed heterogeneity are incorporated and test in the model. Unobserved heterogeneity was initially modelled through a latent class conditional logit specification (with and without making the class probability a function of individual characteristics). However, such model performed less well compared to the standard conditional logit model (based on the BIC). Observed heterogeneity was incorporated in the model through two-way interactions of all attributes with individual characteristics. Using backward selection (at 0.10 significance level) we arrived at our final model. Our model is based on a traditional additive linear utility, where utility has the traditional deterministic and stochastic components. Assuming that the errors follow a extreme value type I distribution McFadden's (1974) conditional logit (CL) can be estimated where the probability that an individual will choose a specific alternative in a set is a function of the attributes. All attributes studied are categorical with two levels, with the exception of age of target group which has three levels with "young age group" being set as the reference category. As estimated parameters have limited interpretability results are discussed in the context of percentage changes in predicted probabilities for each attribute (Lancsar et al, 2007) and as aggregate (i.e. setting all equity attributes to one for a "fully" equitable alternative or all efficiency attributes to one for a "fully" effective alternative). We also compute aggregate equity/efficiency ratios providing an empirical estimate of the 'size' or 'magnitude' of the efficiency/equity trade-off. Given the three level Target Age attribute, a different calculations is presented for each level.

2.4 Composite league table

A selection of interventions of interest in the country was considered. The disease burden of the country was taken in consideration as well as the control of chronic, non-communicable disease threat and risk factors associated, as developed by WHO in a 'package of essential non-communicable (PEN) disease intervention for primary health care in low resource settings (WHO 2010). Preventive and curative type of interventions are included.

The interventions are selected to provide a broad picture of existing and possible interventions across disease areas, to draw out the kind of context in which the MCDA is expected to guide decisions. On the basis of the DCE results, a composite index that represents the relative priority of each intervention as a function of their characteristics

was computed. The information of severity of disease, number of potential beneficiaries and individual health benefits was based on information used in the epidemiological disease models employed in WHO-CHOICE. The cost-effectiveness information of interventions was based on the same project (Evans et al. 2005).

In order to elaborate the composite league table, the set of interventions to be prioritized is mapped against the study's selected policy criteria and a "composite index" (CI) is obtained that represents the relative priority of each intervention as a function of their characteristics, based on the criteria weights. The index of an intervention is then equal to the sum of the weight of its criteria levels. The "probability of selection" is estimated for each intervention using the regression model and a rank ordering of all intervention on the basis of this composite index results in a composite league table (Baltussen et al. 2006, Baltussen et al. 2007).

The research proposal has been submitted to the ethics committee on human research at the Johns Hopkins Bloomberg School of Public Health, and has been waived of requiring a formal ethics approval.

3. RESULTS

Table 2 presents demographic information showing that males are dominant in the sample as they are in Chinese policy making. Likewise, those working on health programs and on policy and implementation are the vast majority in the sample, similarly reflecting Chinese realities. The sampled individuals are quite experienced with over 40% of them having more than eleven years in their current position and a 30% between six and ten years.

Table 3 shows the estimation results from the conditional logistic model. The main effects of criteria related to the number of total beneficiaries, targeting middle aged groups and cost-effectiveness are all statistically significant and are increasing the probability of choosing and intervention, i.e. for cost-effectiveness, the probability of selecting an intervention that is cost-effective is higher than one that is cost-ineffective. The absolute values of the regression coefficients potentially indicate their relative importance in priority setting, although this is more clearly shown in Table 4, where changes in predicted probabilities are calculated. In that respect, the number of total beneficiaries, the middle age group (prioritized over the young age-group) and cost effectiveness are the most important criteria for Chinese policy-makers within our sampled population, showing a large preference for efficiency with a significant trade off of equity over efficiency.

Looking at overall preference between efficiency and equity, a fully effective intervention has an increased probability (compared to the base alternative) of about 7.7% irrespective of whether it is targeted at young, middle or old age groups. Turing to ratios of the aggregate predicted probability differences, a ratio of about 20 and 34 respectively is obtained for young and old age interventions, while a ratio of 2.8 is found for middle

age interventions, all indicating a strong preference for interventions geared towards achieving efficiency.

Male policy makers (as compared to females) appear to attribute reduced weights, or utility, to interventions with large individual benefits and large numbers of potential beneficiaries. At the same time those with more work experience seem to favor interventions that target younger population and interventions that are willing to subsidize the entire population. Finally, those working in implementation show a large increase in utility from interventions that meet the cost-effectiveness criteria.

To illustrate the usefulness of our findings, computations of the composite table are detailed in Table 5. Prevention interventions addressing cardio-vascular diseases and pulmonary diseases (COPD and lung cancer) are top ranking and thus, properly undertaken. Maternal and neonatal health, an important issue in rural areas, also receives a great attention by policy-makers, using an MCDA approach. Several interventions related to mental health would receive additional significant attention.

4. DISCUSSION

The group of policy-makers shows a strong preference for efficiency over equity based on weights given to intervention cost-effectiveness, the magnitude of the health benefit, and total-beneficiaries criteria. Also, focusing on the mid-age population group, policy-makers seem to pay attention to potential economic impact as economic development is a key factor in government performance. The survey results for this group of Chinese policy makers exhibit a profile that resembles more closely profiles of higher-income countries like Norway where universal coverage is in place (Mirelman et al., 2012; Baeten et al. 2010).

Although equity impact in health allocation decisions is becoming increasingly important in many countries (Koopmanschap et al. 2010; Mirelman et al., 2012), Chinese policy-makers prioritize efficiency and the presented example league table addresses the Chinese disease burden of chronic diseases (World Bank, 2011). Table 4 shows that there seems to be no conflict between efficiency and equity in the Chinese decision-making context, confirming Culyer's assumption (2006) that both are necessary and not necessarily competing ingredients, in a deliberative process.

Disparities in health service access has attracted attention in the literature of health reform in China, where income remains the principal determinant of access and use, regardless need (Zhongliang et al. 2011, Alcorn and Bao 2011). Chinese policy makers, like many other governments, struggle with equity concerns in priority setting in health care (Kamae 2010). Now, decision makers increasingly use economic evaluation to inform their decision, and - as we report here - efficiency criteria often override equity. However, the relative nature of the efficiency/equity weights elicited does not necessarily imply a lack of concern for equity itself. A multi-criteria decision analysis approach to priority setting might be an attractive approach also in China to measure the implications

of trade-offs between different concerns on settlement (Ratcliffe et al. 2009). The inclusion of explicit societal attributes is important to make the prioritization effort transparent and socially acceptable and, from a policy perspective, to assess how policy-makers' preferences match the government's long run welfare goals. By doing so, the implications of placing more or less weight on efficiency and certain equity concerns can be discussed in an open, more rational manner (Williams and Cookson 2006, Culyer 2006).

The interventions of the league table relate to prevention, addressing risk factors for chronic pulmonary diseases and lung cancers. These are highly prevalent diseases in China. High blood pressure and cholesterol are also preferred intervention when weighted by the criteria coefficients. Although mental health and alcohol associated-disorders are often neglected areas for policy-makers, and is actually poorly assessed in China (Phillips et al. 2009), in the current model, they receive substantial weight. While currently China does not have a formal priority setting process, the study results have been presented to stakeholders at two national workshops organized by the World Bank on priorities in chronic diseases and one workshop by UNICEF. Albeit our table only includes selected cost-effective interventions, which limit discussion for a broader set on interventions, the use of this linear additive model, as previously applied in Ghana and Nepal (Baltussen et al. 2007, Baltussen et al. 2006), provides interesting results indicating the potential of the approach to inform policy-makers on actual priority setting. Another limiting factor in using the results of Table 5 is the inclusion of few curative interventions as the packages are designed for low resources settings (World Bank, 2011). Here, our selected interventions and criteria, as a general approach for prioritization, are therefore not entirely country-specific. Whilst the criteria applied in this research clarify some of the most important efficiency and equity concerns and follow the growing recent descriptive equity research on China (showing substantial inequities) along similar equity dimensions (Dong et al, 2014; Brixi et al, 2013; as two examples out of many), they are not exhaustive. We acknowledge that important elements of the decision-making process, such as ethical issues, feasibility, and historical embedment, are not explicitly taking into account in the applied MCDA approach.

Given the constraints and assumptions mentioned above, the resulting values for Chinese policy makers observed in the survey seem to confirm that MCDA may not replace any existing process of prioritization but it may supplement any existing procedures with the aim to help stakeholders make more informed decisions while understanding the implications of their choices. Systematic methodologies in identifying relevant attributes need to be incorporated in research designs to test questionnaires and validate findings. At the same time, one has to exercise caution as the representativeness of smaller samples is not always confirmed in larger surveys. The present importance of viewing MCDA as a supplementary tool in decision making is further dictated by its hypothetical nature and its basis on a stated rather than revealed preference exercise (Johansson-Stenman et al., 2008)). While studies have argued for the validity of intentions in predicting actual behavior (Lusk JL et al., 2004) and the validity of DCEs (Gollwitzer PM et al., 1993; Carlsson F and Matinsson, P, 2001; Sheeran P, 2002), caution is suggested in the interpretation and implementation of present findings. Yet, earlier studies have shown an agreement of MCDA results and formally stated policy goals in two countries (Ghana and

Norway) (Baltussen 2006; Defechereux et al, 2012). Finally, depending on the decision-making processes, we further acknowledge the need to study citizens' preferences to reflect and capture overall societal values in health policy decision-making and achieve better representativeness and generalizability, something that future research should include.

5. CONCLUSION

In the efficiency-equity balance, efficiency dominates decision making among Chinese policymakers. If successful, this will lead to increased overall population health. In the reported MCDA approach and in the resulting example of a composite league table, the China profile addresses the major health challenges as reported for China: the control of chronic diseases (World Bank, 2011). Equity and solidarity in relation to formulated insurance plans and universal health coverage efforts to promote access to care are major elements within any innovating health care systems. Addressing disparities is seen to be necessarily linked to improved universal health outcomes. Multi-criteria decision analysis or comparable methods may be relevant approaches to assess the health system balance in terms of equity and efficiency within the formal context of a transparent deliberative process in complex decision making settings.

ACKNOWLEDGEMENTS

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Table 1. Definition of attributes and levels

ATTRIBUTE	LEVEL	DEFINITION
Severity of disease	Not severe Severe	Health expectancy > 2 years without intervention Health expectancy <2 years
Number of potential beneficiaries	Few Many	< 100,000 > 100,000
Age of target group	Young age Middle-age Elderly	0-15 years old 15-59 years old > 60 years old
Individual health benefits	Small Large	< 5 healthy years > 5 healthy years
Willingness to subsidize	< 70% of total health expenditure > 70% of total health expenditure	Financial burden reduction criteria: subsidize at more or less than 70%.
Cost-effectiveness	Not C-E C-E	Cost/DALY > GDP/capita Cost/DALY< GDP/capita

DALY: Disability-adjusted life year; GDP: Gross domestic product

Table 2. Demographic descriptive statistics for the estimation sample

Male	72%
Job Description	
Policy and implementation	37.3%
Health programs	54.7%
Academia/consulting	5.3%
Other	2.7%
Experience	
0-5 years	25.3%
6-10 years	30.7%
>11 years	44.0%

Table 3. Conditional logit estimation results with individual characteristics interactions

<u>Equity attributes</u>	
Severity of Disease	0.0384
	(0.0538)
Age of target group: Middle	0.253**
	(0.113)
Age of target group: High	0.125
	(0.106)
Willingness to subsidize others	0.0985
	(0.0900)
<u>Efficiency attributes</u>	
Number of potential beneficiaries	0.301***
	(0.0906)
Individual health benefits	0.0763
	(0.118)
Cost-effectiveness	0.248***
	(0.0735)
<u>Interactions</u>	
Target age mid * Experience(>10 years)	-0.307*
	(0.169)
Target age high * Experience(more than 10 years)	-0.290*
	(0.150)
WTS* Experience(>10 years)	-0.262**
	(0.124)
Total ben * Male	-0.241**
	(0.106)
Ind health ben * Male	-0.267*
	(0.137)
CEA* Job type (Policy and implementation)	0.312**
	(0.141)
# individuals	75
Obs	2,400

Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Table 4. Predicted probabilities, % changes in predicted probs and efficiency/equity trade-off

	Pred Prob [b]	%Δ compared to base	Interventions Targeting Young Age groups		Interventions Targeting Middle Age groups		Interventions Targeting High Age groups	
			%Δ for aggregate Eq and Eff	Efficiency/Equity ratio	%Δ for aggregate Eq and Eff	Efficiency/Equity ratio	%Δ for aggregate Eq and Eff	Efficiency/Equity ratio
Base alternative [a]	0.562							
Equity attributes								
Severity of Disease	0.567	0.825						
Age of target group: Middle	0.576	2.429	0.387		2.765		0.224	
Age of target group: High	0.562	-0.142						
Willingness to subsidize others	0.560	-0.434						
				19.82		2.776		34.32
Efficiency attributes								
Number of beneficiaries	0.578	2.661						
Individual health benefits	0.548	-2.55	7.677		7.677		7.677	
Cost-effectiveness	0.606	7.66						

[a] Base alternative is based on setting all attributes at their mean

[b] Each alternative is identical to the base with the exception of the attribute of interest that is set at one.

Table 5. Composite league table for interventions targeting young age

Intervention	Young Age	Middle Age	Old Age
CVD risks: population-based interventions (health laws on food)	1	1	1
CVD: Single risks (BP, cholesterol)	2	2	2
Maternal and Neonatal Health: Normal delivery by a skilled attendant	3	3	--
Maternal and Neonatal Health:Support for breastfeeding mothers	3	3	--
Alcohol Use: Comprehensive ban on alcohol advertising	3	3	3
Alcohol Use: Random Breath Testing of motorised vehicle drivers	3	3	3
Alcohol Use: Reduced access to alcoholic beverage retail outlets	7	7	5
Alcohol Use: Excise tax on alcoholic beverages	7	7	5
CVD risks: Combined pop-based and high risk approaches	9	9	7
Tobacco Use: Information dissemination	9	9	7
CVD risks :Multiple risks (BP cholesterol)	11	11	9
Tobacco Use :Nicotine replacement therapy	11	11	9
Tobacco Use Comprehensive advertise banning	11	11	9
Tobacco Use Global average tax rate (44%)	11	11	9
Tobacco Use Highest regional tax rate (75%)	11	11	9
TB: As for SmearPos, plus treatment of smear-negative cases under DOTS	13	19	15
Maternal and Neonatal Health Community newborn care package	16	16	--
Maternal and Neonatal Health: Preeclampsia screening	17	17	--
Depression: Brief psychotherapy administered in primary care	18	18	14
Blindness (cataracts, trachoma) Targeted treatment of trachoma with surgery (at 80% of current prevalence)	19	19	15
TB:SmearPosMDR plus DOTS-plus treatment, and a second-line drugs	19	19	15
TB: Combination: As SmearPos, plus DOTS, plus DOTS-plus standardized second-line drug re-treatment	19	19	15
TB: SmearPos: Treatment of new smear-positive cases only under DOTS	19	19	15
Schizophrenia: Older (neuroleptic) anti-psychotic drug plus psychosocial treatment	24	24	20
Depression: Older (tricyclic) anti-depressant drug administered in primary care	24	24	20
Depression: Newer anti-depressant drug administered in primary care	24	24	20
Epilepsy: Older anti-epileptic drug (phenobarbitone or phenytoin)	24	24	20
Epilepsy:Newer anti-epileptic drug (carbamazepine or valproic acid)	24	24	20
Bipolar Affective Disorder: Newer mood-stabilising drug via a community-based ser.	24	24	20
Bipolar Affective Disorder: Older mood-stabilising drug (lithium)	24	24	20