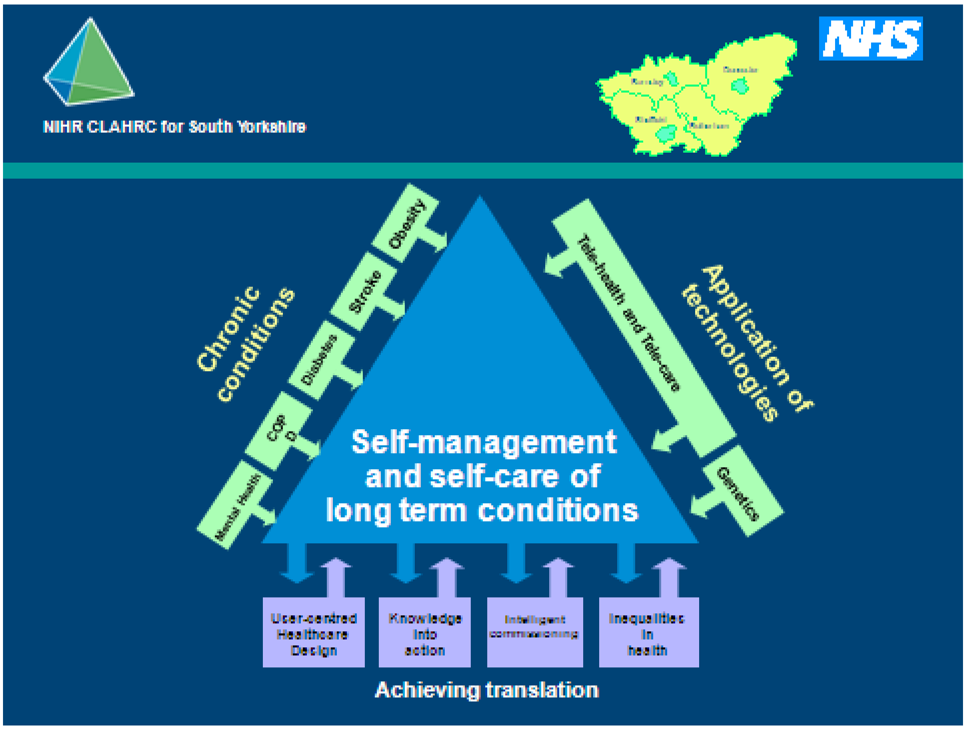
Reducing Health Inequalities Implementation Theme

Briefing Paper 2: How to incorporate attention to inequality in CLAHRC (SY) activity



Introduction

In Briefing Paper 1 we set out the rationale for having an "Inequalities in health" theme as part of the CLAHRC (SY) activity. In this second briefing paper we show how research conducted under the aegis of CLAHRC (SY) can address issues of health inequality.

As noted in Briefing Paper 1, a range of processes contribute to the inequalities in health status that we observe by class, ethnicity, age, disability and sex/gender. The health sector has an important role to play in tackling these inequalities through the provision of preventive and curative services. Furthermore, the increasing focus on the wider, structural determinants of health means that the boundaries of health sector intervention are expanding. Health research has contributed importantly to improvements in health; the task now is to ensure that the generation and application of research evidence benefits all sections of society equally. For instance, at present, there is evidence to indicate that those in higher socioeconomic groups are more likely to benefit from new interventions than those in lower socioeconomic groups.[1] Various studies have documented differential access to high tech procedures by ethnicity with some minority groups being far less likely to benefit.[2] We also know that men and women benefit differentially from certain service developments[3] and there is growing evidence that individuals with disabilities are less likely to receive screening services, as well as other interventions, than the able-bodied population.[4]

As health researchers we have the opportunity to promote equitable benefits from health service developments. The research questions we ask, how we seek to answer them, and the ways in which we disseminate and seek to translate our findings into practice are fundamental to the benefits that eventually accrue to society. There is an urgent need to increase the volume of research that effectively incorporates attention to inequality.

However, a word of caution is also needed. The axes of health inequality we are primarily concerned with - class/wealth, race/ethnicity, age, disability, and sex/gender - are also markers of social difference and hierarchy. It is all too easy for research to reinforce unhelpful stereotypes and to contribute to the very processes of exclusion that it seeks to address. We therefore call for considered and careful attention to inequality within CLAHRC (SY) work.

The present briefing paper aims to raise researcher awareness and to encourage reflection and further development. Our focus is on primary research that involves the collection and/or analysis of data from patients, members of the public or health professionals. A further aim is to encourage CLAHRC (SY) researchers to identify ways of working collaboratively with the Inequalities Theme to enhance the potential of their work to address health inequalities in South Yorkshire.

Stage 1: Identifying a research focus and research questions

In Briefing Paper 1 we identified three broad categories of research: that which is:

1) Directly concerned with issues of inequality;
2) Indirectly concerned with issues of inequality; and
3) Not concerned with issues of inequality (at this stage).

It would be wrong to expect all CLAHRC (SY) activity to address all dimensions of health inequality. Indeed, we should not even expect all activity to be directly or indirectly concerned with inequality at all. Perhaps we could say, however, that a research focus which directly or indirectly addresses issues of inequality will be viewed positively within CLAHRC (SY) and that an indication of having considered issues of inequality would add weight to a proposal.

Nevertheless, when a project includes attention to inequality it is important to examine the assumptions that underlie the research focus. Two particular questions deserve attention: (i) how and why have (comparative) groups or categories been identified; and (ii) whose perspectives have informed the identification of the research questions?

Identifying groups or categories:

A research focus on inequalities in health often involves the identification of, and drawing of comparisons between, groups of people. Though we are concerned to understand how *processes* of social differentiation, inclusion and exclusion act to undermine the health of some individuals, and how these processes might be tackled, this analytical endeavour may require us to operationalise the axes of inequality as discrete categorical variables. However, the fixing of such categories is to an extent artificial; in practice, neither the boundaries nor the content of these socially constructed groups are stable. Furthermore, the labels used and the categories delineated are context-specific. For instance, an individual may be labelled as 'disabled' by one set of criteria and not by another. Similarly, among two individuals with similar levels of impairment one may self-identify as disabled and the other may not. Further, in terms of the possible health-related implications, two individuals both categorised as 'disabled' may share certain factors, for instance difficulty in accessing clinic-based services because of poor public transport, but not others such as a heightened risk of hospital admission related to the various potential health problems associated with Down syndrome. Similar problems arise when we try to organise people into ethnic or class categories, and to a lesser extent by gender or age group. These problems may be lessened with more careful or precise measurement, but they do not disappear; they are part-and-parcel of these social constructions. This is not to say that ethnicity, gender, disability, age or class have no meaning or relevance; far from it. Rather, there is a need for clarity and critical thought on the part of researchers when seeking to categorise people along these axes of inequality. Measuring is a complex business, but this does not mean that we should not attempt to do it.

In particular, labels such as 'working class', 'minority ethnicity', 'disabled' or 'female' can be used only as exploratory markers of underlying, more proximate determinants of health. Research questions (and research designs) should be framed in such a way that the processes lying behind observed inequalities in experiences and outcomes can be uncovered. As we discuss in the section on analysis below, researchers must avoid the tendency to assume, or imply, the existence of underlying, essential factors. This has been a particular problem with much research into ethnic inequalities in health in that minority ethnic identity has often been used as shorthand for assumed, but unexplored, cultural or biological traits. For example, faced with a finding of an increased rate of diabetes in South Asians, we should not conclude that there is something genetic or cultural that causes this but rather we should use the finding as a trigger for further exploration for the underlying causes - for example, diet or stress.

It is also worth remembering that some categorisations will do a better or worse job of identifying a group of people with similar sets of characteristics or experiences. For instance, the census category 'Black African' has been highlighted as encompassing such a broad and heterogeneous collection of individuals as to be largely useless in many situations.[5] However, the extent of homogeneity and the pertinence of any particular categorisation will depend upon the particular topic under investigation. Researchers might also think about using continuous variables rather than categorical ones, though is not straightforward for all dimensions of inequality and not appropriate for all research questions.

Researchers should also consider carefully *how* they will classify study participants - for instance whether to use bespoke or self-assigned open-ended categorisation or to employ standard groupings - and should report both the approach and its rationale clearly. Standardized categories have the advantage of being shared in other research findings and so are good for work which might be used in meta-analysis or synthesis. However, if it becomes clear that the standardized categories will distort or disguise findings then bespoke, more refined categories should be considered. For example, the census categories might serve well enough in large-scale population research of the prevalence of heart disease. However, examining the experience of a risk factor such as stress in a sub-group in Sheffield might require the use of carefully selected categories that capture meaningful groups of people according to different types of disability or ethnicity and so on.

Both qualitative and quantitative work should be alert to these issues, but qualitative work can and should do more to interrogate the meaningfulness of labels and categories and the underlying *processes* that create disadvantage.

Identifying issues worth investigating:
As researchers designing and reviewing research studies, we should consider also how the research focus has been decided and whose perspectives and priorities it reflects. It will often be the case that a proposal whose research questions have emerged from consultation with service users and/or members of the public from relatively deprived categories will be preferable to one that has been formulated in the absence of such involvement. Thus, for example, a research question related to obesity that has emerged from consultation with people living in a deprived area of South Yorkshire might have added merit. We should think also

about why a topic becomes the focus of research investigation and how associated research questions are framed. For instance, research that has explored the issue of congenital birth abnormalities in Pakistani populations has been criticised for its predominant focus on consanguinity as an undesirable cultural norm; a problem to be tackled. In contrast, ageing primagravida status in white middle class women, which is also associated with health problems in offspring, has tended not to be constructed as a problematic behaviour among researchers. The former reflects the more general tendency to pathologise minority groups; something that we should seek to avoid.

Thus, whilst CLAHRC (SY) should welcome research questions relating to inequality issues, these need to be carefully considered. Box 1 gives an example of a research project currently in development under the auspices of CLAHRC (SY) - the CABS project. This project is growing from a problem identified with the community and from work in that community to tackle the problem. It shows also the importance of imagination in developing research and initiatives. Community consultation can really help the researcher develop good projects; it does not have to be a mere tick-box exercise.

Stage 2: Research design and methods

Let us turn now to assessment of the overall proposal. A number of issues relating to research design are worth highlighting.

User involvement:

As with stage 1, the involvement of users/members of the public from the relevant groups in steering the research design would be welcome. It would help to ensure research conducted within the CLAHRC (SY) reflects the priorities of patients and the public. For example, it would be good to see people with learning disabilities involved in the development of proposals relating to that area, or representatives from deprived areas of South Yorkshire in the development of work on obesity. It is likely that meaningful involvement of people from more disadvantaged sections of society will require significant time and resources, for instance for interpretation, production of 'easy read' materials, transport costs, payments for carers/supporters and so on, and researchers should budget appropriately for these expenditures.

Sampling:

The process of taking a sample from a population is complex in relation to the issue of health inequality. Let us start with the general question of why representation of different groups within a sample might matter.

Should your sample be representative of the population about which you hope to generalise, or to which you hope to transfer, your findings? For example, should you be concerned if research you are undertaking on a new treatment for rehabilitation after stroke has a relative underrepresentation of people with disabilities, or men, or Somalis? One view on this is that it does not matter provided the findings will be applicable to those other groups. Hence, the underrepresentation is fine if we have no reason to believe that the efficacy of the new treatment would vary by sex/gender, ethnicity or disability.[6] An alternative view might be that involvement in research is an element of participation in social life itself that is, in general, a benefit. If that were so, then the lack of representation of certain groups in your sample might be of concern on grounds of equity even if you do not believe it will affect the applicability of the findings to those groups. This argument might be particularly strong if we consider that certain sections of society are routinely excluded from health research so that they lack the opportunity to benefit and to influence wider research agendas. Having said that, for any particular study it is surely the applicability of findings that is of greater import than the representativeness of samples. So perhaps in assessing proposals CLAHRC (SY) should take representation of groups to be of some importance for reasons of equity but take applicability of findings to be of far greater importance.

This leads us to the question of how to assure that results are applicable or transferable to groups in the population that suffer health inequality. Here it is useful to distinguish three categories of study.

1. Exclusive: these are studies that focus on a particular group (experiencing health disadvantage) within the general population. The aims and objectives of the research relate primarily to that group. An example would be research looking at the experience of Sheffield's disabled population in using a diabetes clinic. Such a study might be justified by the lack of prior evidence relating to the group and/or evidence that the group experiences particular disadvantage. Box 1 describes a study that is in development within the Inequalities Theme that takes an exclusive design.

2. Comparative: these are studies that aim to compare different groups within the general population, perhaps groups that experience different levels of health and health care. An example would be research comparing the experience of people from different areas of Sheffield in using a rehabilitation service such as pulmonary rehabilitation; similarly interesting might be the different experiences of men and women in this area.

3. Generalisable: these are studies that aim to produce results that are applicable to a wide or universal population. An example would be a project looking at the experience of people who use diabetes clinics in the UK (where there is no intention to do a sub-group analysis of any part of the sample).

Box 1: Working with South Asian taxi drivers to prevent CHD Champions for Achieving Better health in Sheffield (CABS)

UK statistics have shown that Asian men's health and life expectancy are adversely impacted by above average susceptibility to coronary heart disease, stroke and diabetes. In response to this, NHS Sheffield initiated a project focusing on the health needs of Sheffield taxi drivers. This occupational group is largely South Asian in origin. Their sedentary lifestyle, patterns of late shift working, poor eating habits and high levels of smoking also put them at greater risk of disease.

Project ideas were formulated in collaboration with South Asian taxi drivers at a community meeting where drivers were informed of the elevated risk of coronary heart disease (CHD) which South Asian communities face. As a result, a core group of 15 taxi drivers attended a 2-day training course on CHD in Feb 2009 and subsequently became health champions for the project. They now work to raise awareness of health issues within their families, community and among fellow taxi drivers and customers.

6 weeks after the CHD training, trainees had already made a number of important changes to their own lifestyles, selecting more healthy food options and engaging in regular exercise. As part of the CABS project 80 South Asian taxi drivers attended cardiovascular and diabetes screening in June 2009. 35% of them needed a follow up appointment, 13% requiring treatment and one driver found to be 'dangerously ill'. A total of 33 drivers have now been trained and further cardiovascular screening is planned for November 2009. This project is developing as an action research project under the auspices of CLAHRC (SY).

Let us now look at the issues in relation to these three categories.

1 & 2) Exclusive and Comparative

In relation to research in the first two categories (exclusive and comparative) we might want to think about the following issues.

First, is the group (or are the groups) identified relevant in relation to the research question? We have discussed this question above in the section headed "Identifying groups or categories". The key point is that we would expect the researchers to be able to define and justify the groups and categories they have identified as important in their study. A second point here that is also discussed above is the homogeneity of the group in question in relation to the issue of interest; a category such as 'Black African' or 'women' might be insufficiently homogenous for many research questions.

2) Comparative

There are two further issues in relation to what we have termed "Comparative" research.

The first relates to recruitment. In order to achieve adequate samples of all groups of interest, special recruitment measures may be needed. However, if you take special measures to recruit a particular section from a population then that section might differ in important ways from the rest of your sample. For example, you might be concerned that your current sample has very few people from a deprived area of Sheffield. To tackle this, you go to community groups in that area and put out additional information to them; or you offer additional compensation for taking part. This increases your representation from that area but at the cost of adding participants who have been recruited differently and who may therefore differ from the rest of the sample in important ways, for example, in level of motivation to participate.

Second, there is the question of how the researcher will proceed with sub-group analysis of the data? This question should be asked of both qualitative and quantitative researchers. Most quantitative research will be statistically powered to answer a question for a population. If, for example, you find that a new treatment is effective for people with COPD you will say so within confidence intervals to a certain power. What, though, if the treatment is differentially effective; that it is not so helpful for, say, the Somali population (for whatever reason)? Imagine that you have a representative sub-group of Somalis in your sample. Now if you just look at the results as a whole, then you will underestimate the treatment effect in non-Somalis and over-estimate it for Somalis. Alternatively, you might decide to do a sub-group analysis of the Somalis and find it suggestive of a lesser effect in that group. What can you conclude? Unless the sub-group analysis was pre-planned, the number of Somalis in the sample is likely to fall short of sufficient power to be anything other than suggestive. So to answer the question for the Somali population the research will need to be repeated - which might beg the question of why you didn't take a large enough sample in the first place. Furthermore, there is a danger of data-dredging. If you do too many sub-group analyses without appropriate adjustments then you are likely to find some suggestion of a difference purely due to statistical fluke.

If done carefully, sub-group analysis can be very useful, particularly as existing evidence relating to differential effects by ethnicity, disability, class or sex/gender is frequently lacking. This can be planned in the initial protocol; such planning has the virtue of reducing the risk of errors outlined in the previous paragraph. Even so, secondary data sets can be used after the initial research provided the potential for error is borne in mind.

For qualitative research, the key issue arises from the relatively small samples that are usually used. While qualitative sampling can take many forms, it is common in qualitative health services research to find samples drawn on the basis of fixed categories (e.g. disability or ethnic groups) in much the same way as quantitative work. If such samples are taken to represent the population then a number of problems arise. First, small-scale studies will be unlikely to include the range of disabilities, ethnicities, ages, classes, genders and so on that are represented more broadly within the population. Second, when a small number of participants are included from any particular 'group', researchers must be clear about the extent to which, and the ways in which, these data might be illustrative of and transferable to the broader group. Qualitative researchers need to be aware of these issues.

These issues should not deter a researcher from designing a study in such a way as to generate samples that allow the exploration of inter-group differences. Indeed, they are part of the challenge in researching a complicated social world. But researchers need to be aware that the problems are there and take them into account in their research design and subsequent analyses.

3) Generalisable

The key question we should ask of research in this third category is whether its findings truly will be generalisable or transferable to the whole population. We might suspect this not to be so of, say, qualitative research that takes the experiences of white British diabetics to be transferable to all diabetics. It is perhaps more likely that some quantitative research will fit more easily into the "Generalisable" category. For example, there might be little reason to expect a medical device to work vastly differently in sub-groups of the population based on class, ethnicity, disability or gender (although this is not necessarily so, of course). Where this is the case, we might also be fairly unconcerned about the make-up of the sample; whatever it is, the results should still be applicable to all.

Alternatively, researchers might be unsure whether or not a new intervention will have differential effect through groups in the population. In response, they might take measures to ensure that there is a proportionate representation of these groups, such as gender, ethnicity, disability or class. The results would then apply to the population as a whole. This would often be reasonable. However, the researchers would need to be aware of the problem mentioned in the previous section; that if there is a differential effect it will be masked in the results: the new intervention will look better than it is for some groups and worse for others. Furthermore, the general tendency will be for differential effects in small groups within the population to be overwhelmed by the effects on larger groups.

It should be borne in mind for all three categories of project, particularly the third, that having findings that are applicable to a wide population does not equate to their being applied. We discuss below the role of the researcher in ensuring that the results of research do reach groups who suffer health disadvantage.

Data generation:

In generating data from samples including individuals from disadvantaged groups attention should be given to the likely effectiveness and meaningfulness of the data generation tools that are employed. It will often be the case that established tools and measures used in quantitative research have been validated solely in white, English-speaking, middle class, able-bodied populations. It will be important for researchers to consider whether such tools are adequately valid for use in other groups. For instance, are the measures of functionality employed in a study of stroke recovery meaningful across all sub-groups within the study? In some studies there will be an obvious need to ensure effective translation across languages, but measurement and communication issues may also be pertinent to other studies where differential life circumstances mean that worldviews and understandings differ importantly between participants. The suitability of data collection techniques for particular disadvantaged groups also deserves attention since variable levels of articulacy, literacy, confidence and so on can affect the data that are elicited. Box 2 describes a project that is using effective methods for gaining involvement and data collection from participants that have sometimes been considered 'hard-to-reach'.

This point applies across our varied dimensions of inequality. In the case of disability, deafness and the use of signing present a good example of a need that is often missed. The provision of written information sheets to some profoundly deaf people who do not use English will effectively exclude them. The same would be true of the reliance on such sheets for those who are not literate. If there is a need to include particular groups in the generation of data then this will usually require allowing extra time and resources. Without these, those groups will be "constructively excluded" from studies.

Researchers should also make an attempt to gather data on a wide range of factors that could explain the experiences and outcomes of disadvantaged sections of the population. In this way, they can avoid closing off potential hypotheses and explanations at the analysis and interpretation stage of the research process. For example, a researcher might explain poor lifestyle choices on lack of knowledge when, in reality, far more complicated factors are at play. Processes of discrimination are often subtle and require careful methods of investigation if they are to be adequately understood.

Box 2: Helping people to get more active in deprived Sheffield communities: the BOOSTER Trial

We know from national surveys that people in more deprived neighbourhoods and from Bangladeshi, Pakistani and Chinese communities are particularly at risk from the chronic conditions associated with sedentary lifestyles. The BOOSTER trial aims to recruit middle-aged sedentary individuals living in the Enhanced Public Health Programme areas in Sheffield - which have poorer health outcomes and significant ethnic minority communities - to a trial of support to help them sustain increases in physical activity.

The study is using an interactive DVD to introduce people to ways in which they can be more active using facilities in their own community. The study keeps written materials and questionnaires that require completion by participants to a minimum. The study employs team members who speak local community languages and also targets community groups and venues in order to recruit participants who may be reluctant to respond to a written invitation which arrives by post. This approach is supported by research evidence which suggests that although ethnic minority populations are under-represented in research, when approached face-to-face by individuals they trust, they are as positive about research participation as better represented groups.

For further information contact Trial Manager Dr Danny Hind: d.hind@sheffield.ac.uk or PI Liddy Goyder: e.goyder@sheffield.ac.uk

Stage 3: Relevant approvals: ethics and Independent Scientific Review (ISR)

Most research proposals will need approval from, for example, ethics committees. A CLAHRC (SY) internal process of ISR will also operate. In order to get such approvals, researchers often need to show that they have engaged with issues of representation and application. If researchers are able to show they have engaged with the issues in the ways we have set out here they will meet this requirement.

Care of research participants:
Ethics committees and codes of ethical research practice usually devote considerable attention to the care and safety of research participants. Researchers whose projects include participants from less advantaged sections of the population will often need to take particular steps to ensure sensitive and appropriate treatment because such participants may be vulnerable in a number of ways. Researchers should be alert to potential issues relating to: gaining informed consent, ensuring confidentiality (for instance when participants come from small, easily identifiable communities), and avoiding participant discomfort/harm. Junior researchers might wish to take advice from more experienced colleagues and to consult with people who can represent the views of participant groups in order to put in place appropriate measures. Such measures are likely to include (but not be limited to): presentation of study information in easily comprehensible formats; respect for participant preferences relating to privacy; and adequate preparation of researchers to ensure culturally competent and respectful interactions with participants.

Stage 4: Analysis and interpretation

We have already touched on three important issues that relate to the analysis stage of a research project as well as earlier stages.

The first is the need to be aware of the inevitably limited acuity of the social categories that are employed. This is fairly obvious with large catch-all categories such as Black African, Social Class V and Women. However, even more refined categories, such as Somali or High-functioning Autistic might turn out to be misleading to the researcher who is tempted to explain findings in terms of the category itself. It follows that researchers need to be aware of the importance of (i) exploring intra-group variation, (ii) seeking to uncover underlying causal factors and (iii) being open to the conclusion that the chosen categories were not particularly helpful in illuminating the issue under investigation.

The second is the need to be alert to the ways in which any methodological approach may serve to privilege particular voices or understandings of the world. Researchers should consider whether their research is proceeding on the basis of hidden and not (or not yet) justified assumptions; for example, that consanguinity is a problem to be tackled. Researchers should ensure that their approach to analysis (which in turn is driven by the research focus and questions) is open to alternative interpretations; that they adopt a reflexive approach to their work. This could be done by, for example, feeding back results to the groups concerned.

The final point is more generic and could be made of a wide variety of research: it includes:

- Ensuring that the volume of data is adequate to sustain comparative analyses;
- Considering absolute levels as well as relative; in other words, we should be interested in the levels of a particular health problem in all groups as well as whether or not these levels differ significantly between groups;
- Looking for similarities of experience across groups as well as differences between them; for example, old people across social classes and different ethnicities might have shared problems in gaining access to health resources.

Stage 5: Reporting and disseminating findings

In addition to adhering to general good practice in the reporting and dissemination of research findings, researchers should be alert to some additional considerations that are specific to research relating to health inequality.

The first is the need to avoid misrepresentation arising from poor initial research design. An important lesson to remember is that associations do not necessarily imply causation. Just as we need to be cautious in setting up the research question and methodology, so we need to be cautious in our interpretations and reporting. Researchers should be careful not to stray from *description* of differences into *attribution* of causes where this overstretches their data. Researchers also need to head off other people's tendency to read off explanations that have not been offered such as the common practice of offering genetic or cultural explanations for ethnic variations. Careful labelling of research categories can help. For instance, using the phrase 'participants reporting their ethnicity as 'Black African', rather than 'Black Africans', though wordy, alerts the reader to the fact that there is no essential, fixed set of characteristics that makes someone 'Black African' and that we are working with imprecise and complex social categories.

This takes us to a second point: the danger of reporting findings that could, or could be used to, reinforce negative stereotypes or discrimination. Axes of health inequality tend to mirror social disadvantage more generally, with certain groups suffering such prejudice; examples include the so-called underclass, "chavs", people with learning disabilities, and some ethnic minorities. Again, much of the danger of reinforcing prejudice will be avoided through careful setting up of the research question and method. Nonetheless, there could be legitimate research and research findings that need to be handled carefully. For example, it would be unfortunate if research on childhood obesity was reported in the press in a way that blamed parents for children's diets rather than explaining the complex factors that shape life-styles. It is easy to think of similar examples. Researchers need to be sensitive to this and to ensure that their results are presented in such a way that simplistic and prejudiced interpretation is rendered difficult. Careful control of media interpretation will be warranted in some cases.

There is a final question here: should researchers ever not publish a finding because of the way it might be represented? This is probably beyond the remit of this briefing paper to discuss. However, the importance of withholding findings under certain circumstances is advocated by some: for example, the ethical guidelines of the Association of Social Anthropologists state:[7]

> In certain political contexts, some groups, for example, religious or ethnic minorities, may be particularly vulnerable and it may be necessary to withhold data from publication or even to refrain from studying them at all (SS 1(2a)).

Stage 6: Translating findings into practice and policy

As with the other stages, there are generic points to implementing findings that hold for research related to inequality as elsewhere. One additional point that relates to inequality-related research is that we should seek to ensure that findings are implemented in such a way that they either reduce health inequality or, at least, do not increase it. In practice this is not easy. Simple reports of research findings generally filter out to the relatively privileged first. Consequently, it would be good to see research protocols that include details of how research findings will be taken beyond this group. Innovative dissemination tools and user engagement from the early stages of the project may help.

The promotion and facilitation of evidence based practice and Knowledge Transfer are key elements in CLAHRC(SY). One theme is devoted to the complex area of Knowledge Translation, lead by Professor Kate Gerrish. The Inequalities Theme also focuses on the generation and implementation of evidence to address inequalities, supported by three R&D Facilitators funded by CLAHRC. The Inequalities Theme would welcome opportunities to work with other Themes and the KT Theme to explore ways of translating research findings into positive changes in policy and practice. Particular issues that deserve reflection include:

1) The contentious nature of work relating to social hierarchies and inequality will tend to make the KT process additionally complex and challenging.

2) There is a need to be alert to the differences between translating knowledge into practice changes at the individual patient level and the processes of informing change at the level of (i) groups or 'communities' and (ii) the policy level.

3) It is important to combine an understanding of differentials in experiences and outcomes between groups with an understanding of how processes of exclusion, inclusion and disadvantage operate within society so that research findings that explain differences are translated into effective prescription for how such differences might be tackled.

4) Finally, since much research will continue not to include attention to axes of inequality, there is a need for researchers to explore ways in which research findings can be extrapolated or extended, perhaps via collaborative work with the Inequalities Theme, to produce recommendations for the more disadvantaged sections of society.

Conclusion

CLAHRC (SY) is committed to addressing inequalities in health in South Yorkshire. We have chosen to focus on five dimensions of inequality: class, ethnicity, disability, age and sex/gender that are particularly pertinent for the focus of CLAHRC (SY). For example, many of the chronic conditions with which CLAHRC (SY) is concerned are distributed unevenly across class lines, with the poorest in society suffering the highest morbidity. One goal of CLAHRC (SY) is to help reduce these inequalities. As we showed in Briefing Paper 1, tackling health inequalities is also core to national and regional governmental priorities. As such, CLAHRC (SY) researchers have much to gain from ensuring that their work engages appropriately with the health inequalities agenda. We hope that this Briefing Paper helps in the endeavour. Many of the issues highlighted here relate to sound ethical and scientific practice that should apply to all research. However, the nature of the subject matter means that more is at stake when researchers undertake research into axes of inequality based on poor conceptual, methodological and ethical foundations.

We invite researchers to read Briefing Papers 1 and 2 and to reflect on the prompting questions that have been included within the ISR process for CLAHRC (SY).

References

1. Directors of Public Health in South Yorkshire. *Improving health, narrowing the divide.* NHS South Yorkshire; 2006.
2. Harriss K. Ethnicity and Health. POSTnote. London: Parliamentary Office of Science and Technology; 2007.
3. Petticrew M, McKee M, Jones J. Coronary artery surgery: are women discriminated against?*. Br Med J* 1993;306(6886):1164.
4. Commissions DR. Equal Treatment: Closing the Gap A formal investigation into physical health inequalities experienced by people with learning disabilities and/or mental health problems*. London: DRC* 2006.
5. Aspinall PJ. Collective terminology to describe the minority ethnic population: The persistence of confusion and ambiguity in usage*. Sociology* 2002;36(4):803-16.
6. Allmark P. Should research samples reflect the diversity of the population?*. Journal of Medical Ethics* 2004;30(2):185.
7. Ethical Guidelines for Good Research Practice. Available at: http://www.theasa.org/ethics/guidelines.htm. Accessed 14/07/2009.

Further resources:

Canadian Institutes of Health Research: Gender and Sex-Based Analysis in Health Research: A Guide for CIHR Researchers and Reviewers
http://www.cihr-irsc.gc.ca/e/32019.html

Nazroo, J. (ed.) (2006) *Health and social research in multiethnic populations.* Routledge: London.

NHS Evidence- Ethnicity and health. Includes many relevant policy documents, toolkits and reports:
www.library.nhs.uk/ethnicity

NHS Evidence - Race Equality. Includes many relevant policy documents, toolkits and reports:
http://www.library.nhs.uk/healthmanagement/ViewResource.aspx?resID=276957

NHS Evidence - Learning Disabilities
http://www.library.nhs.uk/learningdisabilities/

Office for National Statistics measuring equality:
http://www.ons.gov.uk/about-statistics/measuring-equality/index.html

Office for National Statistics: health inequalities in the 21st century:
http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=15056

Strategic Review of Health Inequalities in England Post 2010 (Marmot Review)
The aim of the Review is to propose an evidence based strategy for reducing health inequalities from 2010.
http://www.ucl.ac.uk/gheg/marmotreview

Valuing people and research: the Learning Disability Research Initiative - overview report
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_083079

WHO, Department of Gender, Women and Health: Gender and Health Research Series.
http://www.who.int/gender/documents/en/researchseriesonepager.pdf

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