Summary and conclusions

Introduction

- 1. In this report, we tackle an issue that has represented a major challenge for those concerned with the health and healthcare of children and young people: how can we ethically undertake the research needed to ensure their healthcare services are safe and effective, given that research often involves burdens and risks? Moreover, what role should children, young people and parents themselves play in influencing how research studies are carried out, and how can their voices help influence the wider research agenda?
- 2. The Nuffield Council on Bioethics has explored these issues through an expert Working Party, supported by a stakeholder group involving young people and parents. Throughout the project, input has been sought widely from young people, parents and professionals concerned with clinical research, in the UK and beyond. Views and experiences were sought through web-based surveys, an open 'call for evidence' and face-to-face meetings; through school projects in the UK and Kenya; and through networks of research professionals working in low and middle income countries from South East Asia to Latin America (see Introduction). While the focus of the report, and its concrete recommendations, are targeted primarily on the UK, we have thus sought to ensure that our ethical analysis and conceptual recommendations have as wide a resonance as possible.
- 3. In determining the scope of this report, we have interpreted what constitutes 'clinical research' broadly, as covering any form of research encounter with children and young people that holds out the prospect of improving healthcare, including preventative healthcare, in the future. While many of the 'difficult cases' cited to us during this project involve the administration of medicines or medical procedures, our approach is relevant to a wide range of research interventions.

Chapter 1: Context and ethos

The significance of context

- 4. In considering how clinical research involving children and young people may ethically take place, we start from a consideration of the *context* in which research takes place, and the many variables that may affect the ethical and social acceptability of proposed research studies. These variables include:
 - The nature and context of the research itself: 'clinical research' covers a wide range of potential research activity, with widely differing potential burdens and benefits for participants. The context in which it takes place creates different ethical challenges.
 - The context of particular children and their families: just as references to 'children' mask variations in age from newborn babies to young people on the verge of adulthood, different children within those age groups have different experiences and roles with respect to decision-making. These may be influenced by factors such as gender, family size and form, parenting style, health status, social and economic

- situation, intellectual ability, and educational opportunity. Where children are ill, the nature and severity of that illness may be a particularly important contextual factor.
- The context of the wider social and political environment in which children and young people are being invited to take part in research, such as the domestic governance of research; access to healthcare; and dominant social attitudes to the notion of research, to parenting, to health professionals, and to risk.

The ethos of this report

- 5. Some fundamental attitudes, both to research, and to children and young people, have underpinned the Working Party's approach throughout its work:
 - Scientifically valid and ethically robust research, that addresses questions of importance to the health of children and young people, should be seen as intrinsically good, and as a natural and necessary part of a healthcare system (paragraph 1.19). It should not be perceived as a threat to children, as something to be apologised for, nor indeed as anything unusual. Without well-conducted research, there is no prospect of improving healthcare for children now or in the future, and there is a real risk that children will be harmed by procedures and medicines that are ill-adapted for their age-group or lacking an adequate evidence base. Such an approach is certainly not a blanket prescription of 'research at all costs' but rather a challenge to the complacent notion that it is safe or ethical to continue promoting care to children without seeking to improve the evidence on which that care is based.
 - We base our work on an understanding of children and young people as people who, in the context of their own family and social environment, have the potential from an early age to play an active role in determining their own lives and in engaging with others (paragraph 1.25). Such an approach, which is commonplace in thinking about the role of children in many other areas of life, stands in stark contrast to many of the implicit assumptions of research governance, which tend to emphasise vulnerability and lack of competence.
- 6. Much has already been written as to what constitutes 'ethical practice' in clinical research but generally from the starting point of research with competent adult participants. In this report, by contrast, we aim to start with a consideration of children and young people, and of their lived experiences of participation in research. We then use this understanding to reflect critically upon specifically child-related issues arising in clinical research, including assumptions of childhood vulnerabilities, the role of children themselves in decision-making, and the role of parents and others in promoting children's welfare.

Chapter 2: Being invited to take part in research – evidence and law

7. The first contact that most children and young people, and their families, will have with clinical research is when they are approached and invited to participate in a particular study. This chapter reviews first the empirical evidence of how, in practice, children and families make decisions about research participation, and then the role played by national law, international declarations, and good practice guidance.

Empirical evidence

- 8. The way in which children, young people and parents respond to the possibility of participating in clinical research is likely to depend on three broad factors:
 - The **nature of the research**: for example, whether it relates to a child's own condition, and the severity of that condition; whether the need for a decision arises at a particularly traumatic time, and how much time is available to think about it; the degree of risk or discomfort involved; and time and opportunity costs involved in taking part.
 - The **situation of children and their families**: their existing knowledge of research, and their attitudes towards both research and risk in general; their desire to help others through participation in research; and their perception of potential health or other benefit deriving from participation.
 - The **relationships between researchers and families**: the extent to which there are trusting relationships between children/young people, parents and researchers; and the quality of the communication between them.
- 9. Children and young people themselves are involved in participation decisions in very different ways: from no involvement at all, to joint decision-making with parents, to being the final decision-maker. These differences do not simply correlate with age, but appear to be influenced by many other factors including the severity of any illness, the suddenness of either the diagnosis or the opportunity to take part in research, children's and young people's prior experiences, and general family dynamics in decision-making.

Law and guidelines

- 10. In contrast with the context-specific nature of decision-making emerging from the empirical literature, regulatory approaches focus very much on the role and status of the decision-maker. In most cases, children or minors are, by default, assumed to be unable to make their own decisions, and authorisation is required instead from a parent or another legally-authorised proxy. International declarations, regulations and guidance take diverse approaches to the extent to which children or young people should, nonetheless, be *involved* in the decision. Most, but not all, make specifications relating to the (age-appropriate) information children and young people should receive, and the importance of involving them in the consent process in a manner appropriate to their maturity.
- 11. The term 'assent' is used widely within both international declarations on research ethics and in some national legislation to encompass this involvement, but with very different meanings and implications. These vary from "the emergent capacity to agree" of a three year old, to the "knowing agreement" of an adolescent who has not yet reached the legally established age of consent but who nevertheless has the capacity to make their own decisions. Unlike consent, assent has no legal force, but some guidelines require documentation that a child has assented to take part.
- 12. There is similar variation in how a child's dissent should be handled: in particular whether it should be 'considered', or by contrast, 'respected'.

Chapter 3: Developing research proposals – law and practice

13. This chapter provides an overview of the often extended process by which clinical research studies reach the point of recruitment described in the previous chapter, It addresses both the 'drivers' of research, and the mechanisms designed to ensure the quality of research studies.

What research takes place and why?

- 14. Clinical research studies may be funded by the commercial sector, charitable foundations, or public money. Some charitable and public sector funders set out high level priorities for the kind of research they wish to fund, but in practice most funding is allocated in response to the perceived quality of researchers' proposals. Organisations such as the James Lind Alliance argue for a more targeted approach to research prioritisation, and involve both patients and professionals in their 'priority setting partnerships' (PSPs) which identify the most urgent research questions in particular areas of care.
- 15. Where research is funded by the commercial sector, governments may use regulatory requirements and incentives ('sticks and carrots') to influence their agenda. In the specific area of research on medicines, the EU Paediatric Regulation 2006 has increased the information available on medicines used for children and young people by requiring companies to develop paediatric investigation plans (PIPs) to include children and young people whenever they carry out trials of new medicines. New medicines are exempted from this requirement if they target conditions that do not arise in children, although the way these 'class waivers' operate in practice has been criticised. Incentives to encourage further research on off-patent medicines have not so far proved effective.
- 16. Action has also been taken at EU level to encourage collaboration, which is particularly important in research with children where conditions may be very rare and hence cohorts of potential research participants very small.

Scrutiny of research proposals

- 17. In order to protect potential research participants, international declarations and national guidance set a number of 'threshold' criteria that studies must meet, relating to the value of the research, the balance between benefits and burdens, and the management of risk. The design of research studies is subject to a detailed scrutiny process, involving both scientific (peer) and ethical review, to ensure that these requirements are met. The valuable contribution that children, young people and parents can make, both in commenting on study design, and ensuring information about the study is suitable for children and young people, is increasingly being recognised.
- 18. While many challenges arising in the peer and ethical review processes apply to all research scrutiny, regardless of the age of the potential participants, concerns specific to the ethical review of research involving children and young people were raised with the Working Party. These included anxieties that, the younger the potential participants, the more research ethics committees (RECs) tended to lean towards a protective or 'parentalist' approach. It was also argued that RECs must have access to specialist expertise in relation to relevant areas of children's and young people's healthcare in order to make a fair judgment about the risks and benefits of a proposed study.

Chapter 4: An ethical approach to children's involvement in research

19. This chapter draws on our underpinning ethos, on the available empirical evidence, and on our overview of existing regulatory approaches, to analyse the ethical issues at stake in seeking to involve children and young people in clinical research.

What is (ethically) different about children?

- 20. In order to consider what it is that is potentially different, ethically speaking, about children and young people in research, it is necessary to make some further distinctions within the very broad concept of 'childhood'. We identify three distinct paradigm cases: situations in which a child's or young person's potential for input into a decision about research raises distinct ethical questions:
 - Case One: children who are not able at this time to contribute their own view as to whether they should take part in research, such as babies and very young children, or children who are temporarily unable to contribute because they are so unwell or are unconscious.
 - Case Two: children who are able at this time to form views and express wishes, but who are clearly not yet able to make their own independent decisions about research involvement.
 - Case Three: children and young people who potentially have the intellectual capacity and maturity to make their own decisions about taking part in a particular research study, but who are still considered to be minors in their domestic legal system (paragraph 4.5).
- 21. All children, at the beginning of their lives, will fall into Case One, and most (although not all) will progress over time through Case Two to Case Three. This progression will not be straightforwardly linear, however. The nature of the particular research decision to be taken, and children's and young people's physical, emotional and mental condition at the time, will also determine which case is applicable for this child or young person for this decision. For example, a 12 year old might be in Case Two for some decisions, but in Case Three for others. A very ill 16 year old might be in Case Two, even if usually they would be in Case Three. Not all young people will reach Case Three for example, if they have severe learning disabilities and need help with day-to-day decisions.
- 22. The **developmental aspect of childhood**, from the complete helplessness of a baby in Case One to the relative self-sufficiency of a young person in Case Three, also provides a helpful pointer in identifying what it is that is distinct or special about childhood. A factor that unites all three cases, correlating directly with this developmental nature of childhood, is that children have **parents** who play an important role, from both legal and ethical perspectives, with respect to making decisions on their behalf. Throughout this report we use the term 'parents' to refer to one or more adults taking on this role of parental responsibility whether or not they have a biological connection with the child (paragraph 4.8).

Responsibilities of parents

- 23. Ethical considerations that parents should take into account when making decisions with or on behalf of their children include (paragraph 4.10):
 - Respect for children as individuals, regardless of their age or capacity. This may, for example, be expressed through consideration of children's wishes, and respect for their bodily integrity, although children's wishes may not always be determinative.
 - Recognition of children's developing capacity for autonomous agency and the supportive or educational role of parents in helping their child develop and 'practise' decision-making skills and confidence.
 - Concern for children's immediate and longer-term welfare. Immediate welfare interests at the time of the research may relate to factors such as any pain, anxiety, distress, or enjoyment associated with participation in research. Longer-term welfare interests relate to children's and young people's future 'good' including, but not limited to, questions of what is 'best' for them in terms of their physical health or personal interests. Parents also have a responsibility to seek to influence the values that their child acquires as they grow up, and to shape the kind of person their child becomes. This 'shaping' includes influencing how children understands their responsibilities to others, as social beings.

Understanding welfare

- 24. We suggest that an understanding of children's longer-term welfare should encompass the possibility of contributing to wider social goods. Such a contribution could take the form of participation in properly regulated clinical research in order to contribute to the knowledge base necessary to improve healthcare for all children in the future (paragraph 4.28). This is not, of course, to say that anyone has a specific *duty* to take part in research; rather that, in determining what is 'good' for their children, parents should take into account the fact that their children are growing up in a social context. Participation in properly regulated research offers one possible opportunity for expressing social solidarity, and hence may be regarded as good for the child.
- 25. At the same time, in inviting children and parents to contribute to the 'social goods' of research, researchers should be confident that the study protocol does not pose unacceptable risks or burdens for children. Thus, alongside participation in research understood as an act of care for others, there must be concern for the physical and emotional well-being of every child participant.

Compatibility with children's interests

26. The language of 'best interests' is often used to capture this general concern for children's welfare, but is misleading in the context of clinical research, given that research-related procedures are not, primarily, carried out for the personal benefit of participants. We therefore suggest that parental consent to research should be based on their confidence that participation in the proposed research is compatible with their child's immediate and longer term interests (paragraph 4.33).

Decision-making in the three paradigm cases

- 27. The way different families manage these ethical concerns will vary considerably. However, the *balance* is likely to shift in important ways as children progress through the three cases.
- 28. In Case One, where children cannot participate in decision-making, the sole focus is on the role of others (first and foremost children's parents) in making decisions on their behalf. While this report challenges the automatic assumption that all children are vulnerable in research in a way that adults are not (see paragraph 34), children in Case One are clearly vulnerable in a way that children in Cases Two and Three may not be, in that at this point they are entirely dependent on others to make decisions for them. Parents' primary concern in such circumstances will be for the welfare of their child.
- 29. In Case Two, children are able to contribute their view, but are not capable of making a participation decision independently. In addition to making judgments about their child's immediate and longer term welfare, parents will therefore need to determine how these factors should be balanced both against the respect due to their child's own views and feelings regarding research participation, and parents' general educational obligation to develop their child's decision-making capacity. Relevant considerations in any such decision include:
 - the potential for their child to derive direct or indirect benefit from the proposed research, and the likelihood and severity of any associated risks;
 - the burden of research participation for their child for example, whether they have particular anxieties about any of the procedures involved;
 - their child's own views and feelings about the proposed research;
 - the maturity and understanding of their child;
 - the value placed by the parents on the role of participation for their child's longer term welfare:
 - the relative strength of the parents' views with respect to the various welfare considerations listed above, and their child's feelings; and
 - the likely impact on their child's immediate and longer term welfare of overriding their preferences for example, the degree of immediate distress and the risk of future lack of trust in clinicians or researchers if they are required to take part against their will (paragraph 4.39).
- 30. In Case Three, by contrast, the distinctive feature is children's or young people's potential capacity to make research participation decisions for themselves. Nevertheless, parents still retain important responsibilities with respect to promoting their children's welfare and seeking to influence the way they grow up. We suggest that, instead of seeking primarily to identify who (child or parent) is entitled to provide a legally effective consent or veto on research participation in this Case, the ethical focus should be on obtaining agreement within the family unit concerned. Thus, the starting assumption in any discussion as to whether a child or young person within Case Three should take part in a research study would be that this should normally be a shared family decision.
- 31. In other words, we are making the claim that there *is* a morally significant difference between 'competent children' and 'adults', which may potentially justify differential treatment. Children, however intellectually capable, do not have full adult powers and the corollary of that is that they also do not have full adult

responsibilities. Parents are there, both ethically and legally, to share that responsibility until the agreed threshold of adulthood is reached (paragraph 4.47). In making this claim, it is crucial to acknowledge that 'childhood' is, at least in part, a social characterisation that will vary from society to society. The law in each society will set a norm judged appropriate for this parental power and responsibility to end: that is, the age of majority. It will vary around the world, and move over time; some jurisdictions may also choose to specify different ages for particular aspects of parental power to end. However, a line is always drawn somewhere.

- 32. Our threefold analysis of parental responsibilities is thus also applicable where children and young people fall into Case Three but the *balance* of those responsibilities will be exercised differently from Case Two. The parental role in helping their child to *develop* capacity begins to fall away, but has not yet become redundant. Respect for their child as an individual who is able to make their own decisions will increasingly be the dominant feature of the parental role, but concerns about welfare will still be significant. In Case Three though, by contrast with Cases One and Two, such concerns will be expressed primarily in the form of *advice and support*, rather than through exercising the role of a substitute decision-maker.
- 33. An important aspect of this analysis of parental powers and responsibilities lies in their discretionary nature. A key aspect of parenting consists in the gradual yielding of responsibility, accompanied by appropriate levels of support, from parent to child.

Challenging vulnerability

- 34. The straightforward association often made between 'childhood' and 'vulnerability' was strongly challenged throughout the Working Party's consultative activities. In many cases, the factors that may potentially make children feel, or be, vulnerable in the context of clinical research do not arise inevitably because of the nature of childhood; and nor are they necessary features of research. Rather, they arise in the *context* of the developmental nature of childhood experienced, for example, in young children's need for practical and emotional support in understanding what is proposed, or anxiety about the impact of research participation on their school life. Once the relevance of this context is recognised, there will often be scope to reduce vulnerability by modifying some aspects of the research.
- 35. The risk is that an unduly protective response to perceived or actual vulnerability may not only exclude children and young people from opportunities to participate in research activities, but also harm the interests of many children in the future by preventing potentially valuable research from taking place. However, an awareness that children *may* potentially be vulnerable in a research setting may nonetheless provide a useful alert to those professionally concerned with research: in brief, to ask themselves 'does this research raise particular ethical challenges and what can I do about them?' The real challenge for those professionals is thus the nature of the *response* they make to that alert. References to vulnerability in the context of children's and young people's involvement in research should never be treated as an automatic 'brake' on a research proposal.
- 36. We suggest that an appropriate response by professionals to concerns about children's potential vulnerability in research is to ensure that they work in partnership with children, young people and parents throughout the whole endeavour of research (paragraph 4.59). Such a partnership approach will ensure that, whenever children and young people are invited to take part in clinical research, the procedures to which they are being invited to consent have been developed with the

input of others in a similar situation to themselves. Where it is not feasible to seek direct input from children in similar situations (that is, for some of the children in Case One), then this engagement will be carried out on their behalf by parents; but, as we discuss earlier in this chapter, parents will also continue to play a role as their children develop through Case Two to Case Three. Such an approach implies a fundamental shift from seeking to protect children 'from' research, to protecting them through their own active engagement with the way that research with children and young people is designed and carried out.

37. Finally, it is also important to be alert to the fact that parents, too, may often need support in the context of their child's research involvement (paragraph 4.61). Parents' day-to-day decision-making responsibilities are inevitably more challenging to exercise if the decision to be taken involves potential burden or risk for their child, or arises in highly emotional and difficult situations. This is an important recognition but, as with our analysis above with respect to children's potential vulnerabilities, should not be seen as placing an automatic brake on certain kinds of research being undertaken. Rather it acts as a prompt to consider how research studies may be developed and carried out, and how professionals can appropriately support parents, in a way that does not make unreasonable demands on either parents or children.

Chapter 5: Developing research proposals – the role of professionals

38. The question of whether or not research participation is compatible with children's or young people's interests depends not only on the view taken by individual children/young people and their parents as to the value of contributing to that research, but also crucially on the aim and design of the research itself. This chapter now considers the role of the many professionals involved in research, whose actions and attitudes have a powerful, if sometimes unseen, influence on the decisions that children and their parents are asked to make.

The role of professional virtues

- 39. Any system, however well-intentioned, devised to encourage and promote ethical research with children, may unwittingly lead either to unthinking adherence to a checklist of requirements, or may create such onerous hurdles that it acts, in practice, as a barrier to research. The question then is how to develop *reflexive* ethical practice that is not simply enforced top down by external requirements or organisations, but that becomes an inherent part of professionals' daily practice, and is sensitive to difference in national and social contexts. In the specific context of research with children and young people, we identify three particular virtues or values that have emerged repeatedly throughout the development of this report and that we suggest lie at the heart of professional ethical practice in this field:
 - Trustworthiness, facilitating trust: children and parents will only feel able to take part in research if they can trust both the researchers with whom they are interacting, and the way the research is organised. Any functioning system of governance must also be able to trust the researchers who are subject to that governance.
 - Openness: researchers need to share information clearly and honestly with children and parents – when inviting them to take part in research, during the research itself,

- and afterwards. They also need to be willing to collaborate with, and learn from, other sectors of the research community, and across countries and continents.
- Courage: some research is difficult to do, and it may seem easier just not to do it. But if research is not carried out, then children will not have the best possible healthcare, and may even be given treatments that are harmful, because no one has done the research to find out. The proper involvement of children and young people in the research process, which involves at least some degree of transfer of power between adults and children, also involves courage (paragraph 5.8).

Professional responsibilities in developing research

- 40. In Chapter 4, we suggest that research professionals should respond to concerns about children's potential 'vulnerability' in research by asking themselves: 'does this research raise particular ethical challenges and what can I do about them?' We further argue that these challenges can best be explored in the light of children's and young people's own perceptions of the demands of the study. In the design and development of clinical research studies, researchers thus need to ensure that they have worked in partnership with children, young people and their parents from the beginning. Genuine partnership will help to ensure that important aspects of the research question have been considered from the perspective of those whom the research aims to benefit; that researchers are aware of and respond to those aspects of study design that might be of concern to prospective participants; and that information materials are clear and age-appropriate. There is a well-established network of young persons' advisory groups in the UK who are well-placed to take on aspects of this role, as are voluntary sector organisations that support children and families with particular conditions.
- 41. We strongly welcome the approach taken in the UK by the Clinical Research Network: Children, and by the Scottish Children's Research Network, in establishing and supporting young persons' advisory groups. We note and welcome how similar groups are being developed in other countries, and in specific areas of healthcare, such as mental health. We also recognise that such groups are not cheap to run, and that at present their costs tend to be borne out of public funding allocations for research which are already under considerable pressure. All stakeholders need to work together in order to ensure that these groups have a secure funding base for the future, and where necessary are able to expand in order to respond to increasing numbers of requests from researchers. In particular, it seems evident that the commercial research sector, which makes use of the groups' services, should contribute towards their costs. Whatever the funding mechanism chosen, it is clearly critical that the independence of the groups should be maintained (paragraph 5.15).

Recommendation 1

We recommend that the Clinical Research Network: Children and the Scottish Children's Research Network should initiate discussions with their industry partners on ways in which industry could contribute to the costs of young persons' groups in the UK, without compromising their independence.

Recommendation 2

We recommend that all sponsors of clinical research develop systems to guarantee that their quality control of research proposals involving children and young people exposes those proposals to expert advice on good practice, and to the views of young people and parents.

Recommendation 3

We recommend that INVOLVE should collaborate with the National Institute for Health Research's Research Design Service and relevant experts at the Medicines and Healthcare Products Regulatory Agency to explore how the design and regulatory scrutiny of clinical trials can take more account of the experience of young people who have previously taken part in trials, and of their families.

Professional responsibilities when reviewing research

- 42. When reviewing research protocols, research ethics committees (RECs) should have in view both their 'protective' and 'facilitative' roles. Consideration of the potential risks and burdens of the research *must* certainly play a central part in the ethical review of any research protocol, but at the same time the potential value of the research should not be overlooked.
- 43. Most jurisdictions require that research procedures should pose no more than minimal risk or burden to children and young people participating in the research, unless those risks and burdens are judged to be outweighed by the prospect of direct (health) benefits. Such an approach, however, stands in contrast to the risks that children and young people of a similar age are permitted, or even encouraged, to run in other areas of their daily life that may far exceed any definition of 'minimal', such as those involved in contact sports, or in learning to drive. While in some cases these risks may be recognised and explicitly justified by the (direct or indirect) benefits they are perceived to bring, this cannot always be assumed, particularly where participation is compulsory as in some school-based activities. How are members of RECs to respond to these conflicting societal messages as to what degree of risk is acceptable for what degree of (potential) gain? Rather than attempting to reproduce or revise any such lists of acceptable procedures, or comparator activities in daily life, we suggest that it is more appropriate to focus on the expertise that RECs, those tasked on a regular basis with making these judgments, are able to draw upon when approaching these questions.
- 44. We conclude that, in order for RECs to be well placed to make these (sometimes very finely balanced) decisions as to whether, in a particular case, the burdens and risks presented by a study protocol can ethically be justified, it is essential for them to have access to appropriate expertise. We highlight two forms of such expertise: that of professionals with specialist knowledge of children's healthcare; and that of children and families (paragraph 5.23).

Recommendation 4

We recommend that, whenever research ethics committees consider protocols relating to research with children, they should always ensure that they have timely access to expert advice from the relevant area of children's and young people's healthcare. Such

expertise may need to be obtained through an external adviser co-opted for the particular decision.

Recommendation 5

We recommend that the National Research Ethics Service, in cooperation with relevant Royal Colleges and other professional bodies, should establish a database of experts who are willing to act as REC advisors, from across the full range of potential clinical research areas involving children. The National Research Ethics Service might also consider ways in which researchers and research ethics committees might better communicate with each other with respect to any specialist areas of knowledge required to inform assessment of the protocol, for example through specific prompts in the online application form.

Recommendation 6

We further recommend that the National Research Ethics Service should keep under review the experiences of both research ethics committees and researchers with respect to the current system of 'flagging' committees as suitable for considering research with children and young people. If the evidence suggests any systematic difficulties with respect to the scrutiny of particularly complex or sensitive studies, the National Research Ethics Service should consider exploring alternative models, such as the creation of a limited number of expert research ethics committees, on the model, for example, of the Social Care Research Ethics Committee.

45. The Working Party was also struck by the difficulties that health professionals and others engaged in research sometimes appear to encounter in convincing their employers that the time required to serve as a REC member is time well-spent (paragraph 5.25).

Recommendation 7

We recommend that the UK Departments of Health, NHS Employers, Universities UK and the Health Research Authority should jointly consider what steps they can take to protect the professional time needed for research ethics committees to work effectively.

Recommendation 8

We further recommend that the Royal Colleges and professional bodies concerned with children's and young people's health should make their commitment to evidence-based care clear by reinforcing the professional responsibilities of their members to contribute to the ethical review of research over their professional lifetime. For example, involvement of some form in a research ethics committee (including in an *ad hoc* advisory role) could be encouraged as part of continuing professional development schemes. A number of rotational posts for trainees working in different areas of children's and young people's healthcare could be linked with their local research ethics committees.

46. The equally critical input that can be obtained from parents, children and young people as to the acceptability of particular risks and burdens in the context of research should be set alongside the importance of access to specialist professional expertise. RECs should routinely expect researchers to have involved children, young people and parents, as appropriate, in the design of their studies. RECs will then be able to draw on the reported opinions of children, young people and parents in order to assure themselves whether the study design is appropriate, whether any risks and burdens have been minimised and justified, and whether information materials are comprehensible to their target audience.

Recommendation 9

We recommend that research ethics committees should routinely require researchers to have involved children, young people and parents, as appropriate, in the design of their studies. Researchers who have not sought input in this way should be required to justify to the research ethics committee why this was not appropriate in their case, and be able to demonstrate an appropriate knowledge of relevant literature and guidance.

- 47. However, the responsibility of determining the ethical acceptability of a protocol, of making independent judgments about acceptable levels of risk and burden, and how these may be balanced against any possible benefits, remains with the REC. This assurance role of the REC is important not just with respect to the potential participants in the particular research study, but in order to promote wider public confidence and trust in the whole endeavour of research, especially where public knowledge of research and research procedures is lacking. We take the view that the fundamental role of ethical review is to ensure that an invitation to participate in research would constitute a 'fair offer' to children, young people and their parents, where the value of the research and its likely risks, burdens and benefits have been carefully weighed up (paragraph 5.28).
- 48. In focusing on the role of the REC in ensuring that research involving children constitutes a fair offer to children and parents, it is also important to recognise the REC's second and equally important function: its *facilitative* role, which arises in recognition of the essential social good of well-designed and well-conducted research. It is not an ethically neutral act to say 'no' to a research proposal that might potentially lead to better outcomes for children's and young people's healthcare (paragraph 5.34).

Drivers of research

Research prioritisation

49. There are major challenges inherent in determining what forms of research with children and young people should be prioritised. While the overall burden of any particular condition is clearly highly significant in considering priorities for research, this is not the only factor to be taken into account, as such an approach would necessarily overlook the impact of rare diseases on children and their families. Other considerations that must also be taken into account include the practical scientific question of which research directions are most promising at any particular time; and the unpredictable nature of research, with the prospect of findings in one field having unexpected influence in another.

- 50. Given the complexity of these judgments on priorities, made more complex still by the myriad of potential funding sources, we conclude that our primary ethical concern with respect to prioritisation should relate to the *process* by which such decisions are reached. Drawing on our emphasis on the importance of partnerships between research professionals and potential research participants, we suggest that the key challenge for those responsible for making decisions about which studies to fund must be to ensure that key stakeholders, including children, young people, parents and professionals, are appropriately involved in those funding decisions (paragraph 5.40). The model of the James Lind Alliance's 'priority setting partnerships' provides an excellent example of how this is already being achieved in some areas, such as in the care of preterm babies, and treatment of teenage cancer.
- 51. The European Medicines Agency's (EMA) Paediatric Committee (PDCO) also has an important part to play in this process of prioritisation, through its ongoing work developing inventories of 'paediatric needs' for medicines research across a range of therapeutic areas. We note, and support, PDCO's general commitment to involving children and young people in its activities, and, in particular, proposals made in 2013 that such involvement should include input into the definition of significant therapeutic needs. We strongly encourage PDCO to continue to take these plans forward (paragraph 5.42).
- 52. We similarly endorse and encourage ongoing work by Enpr-EMA (the European 'network of research networks'), exploring how European children's research networks can contribute to the priority-setting debate, and how they can facilitate the involvement of children, young people and parents in those discussions. More, however, needs to be done to encourage debate at national and regional level about priorities across the range of childhood conditions. We encourage health departments (within the UK and beyond) to take the lead in initiating debate on the most pressing priorities in child health research in their own countries, and in ensuring that children, young people and parents, as well as relevant professional experts, are appropriately involved in those discussions (paragraph 5.41).

Incentivising medicines research with children and young people

- 53. The 2006 Paediatric Regulation, combined with the incentives included within the Orphan Medicines Regulation, has started to make a real and welcome difference to the amount of information available to prescribers on the effect of medicines on children and young people. We welcome the significant benefits that the 2006 Paediatric Regulation has brought about within Europe, in increasing the focus on medicines research with children. We recognise, in particular, the very positive and proactive approach EMA and PDCO have taken to their regulatory role, using it not only simply to police the system established by the Regulation, but also actively to promote effective, collaborative, research with children and young people through a variety of practical means. We strongly encourage the EMA and PDCO to build on these successes, using the opportunity of the forthcoming tenyear review of the Regulation with respect to any identified need for legislative change (paragraph 5.44).
- 54. It is, however, clear to us that the class waiver system, whereby medicines targeting 'adult-only' conditions are exempted from the requirement to include children and young people in trials, is not working as originally intended. As a result, the opportunity for research that might in fact benefit children (for example, where the mechanism of action of the medicine is relevant to a different condition in children and young people) can be

lost. We note earlier in the report, in the context of ethical review, that it is not an ethically neutral act to say 'no' to a research proposal that might potentially lead to better outcomes for children's and young people's healthcare. Similarly, a loss of opportunity to promote research that is potentially important for children is a matter of ethical concern. We note that there is nothing to *prevent* sponsors of research from choosing to put forward a paediatric investigation plan (PIP), even where they would be entitled to receive a waiver, and indeed that some sponsors have done so. We urge sponsors to consider this option, and PDCO to raise awareness of it.

Recommendation 10

We recommend that the European Medicines Agency's Paediatric Committee should complete its review of the class waiver system as a matter of urgency and ensure that where the mechanism of action of a medicine is potentially relevant for children and young people, research with children and young people goes ahead.

Recommendation 11

We recommend that where research sponsors are eligible for a waiver under the current class waiver system, they consider the evidence on the possible relevance of the mechanism of action of their product for *other* conditions occurring in children and young people. Wherever appropriate, they should undertake research with these age groups on a voluntary basis.

55. More needs to be done to incentivise or promote research with children on the use of off-patent medicines, including the development of age-appropriate formulations. A number of approaches were cited to us which we feel merit further consideration including those of transferable market exclusivity (allowing the value of an incentive to be transferred to a different product), or the use of imaginative tax breaks, if necessary on a country-by-country basis (paragraph 5.46).

Recommendation 12

We recommend that the European Medicines Agency should give serious consideration to innovative approaches to incentivisation for research with children on the use of off-patent medicines, as part of its preparation for the ten-year review of the 2006 Regulation.

Collaborative working

56. Industry is not, however, the only possible source of research activity with respect to off-patent medicines in children. Academic researchers and patient groups may also be well-placed to initiate work in this field, collaborating as appropriate with industry, or seeking additional support from the EMA, to ensure that regulatory requirements are met. The potential value of collaborative working as a response to the difficulties encountered with respect to off-patent medicines serves to highlight the much more general need for cooperation within children's research. While the realities of different academic, professional and commercial interests across the research sector cannot simply be ignored, we suggest that there is a strong ethical imperative for researchers working in the field of clinical research with children and young people to work collaboratively with each other, and with key stakeholders such as

condition-specific family support groups, to the maximum extent possible (paragraph 5.47).

Chapter 6 – Taking part in research: professional responsibilities

- 57. We now turn to consider responsibilities in connection with professionals' *direct* interactions with children and their families: those that arise when children and young people are invited to take part in research, and indeed those that arise throughout and after the study itself.
- 58. While researchers do not take on a parental role, at particular points in time they occupy a professional role with respect to particular children or young people which, as an adult-child relationship, brings with it associated responsibilities. We suggest that these responsibilities might therefore be characterised as obligations to:
 - treat children and young people as individuals of value in themselves;
 - support parents in their attempts to help their children develop their ability to make autonomous choices;
 - act in accordance with children's and young people's immediate and longer-term welfare (for example, minimising any distress arising in connection with research involvement, only proceeding if confident that participation in research is compatible with their interests, and being sensitive to the importance of maintaining family harmony with respect to research participation); and
 - act in accordance with the professional virtues outlined in Chapter 5: trustworthiness, openness and courage (paragraph 6.3).

Responsibilities to children and young people: consent and assent

Children and young people in Case Three

59. Children and young people fall within Case Three where they are capable of understanding what is involved in taking part in a particular piece of research and of deciding for themselves whether or not to take part, but are not as yet given full decision-making power under national legislation. We take the view that, where children and young people have this level of understanding, professionals have an ethical obligation actively to seek their consent, not their 'assent', regardless of any additional requirements of national legislation (paragraph 6.5). At the same time, we recognise that parents continue to have a legitimate interest in their children's decisions until their child is formally recognised as an adult within their national jurisdiction.

Recommendation 13

We recommend that, where children and young people have sufficient maturity and understanding, but are not yet treated as fully 'adult' by the law of their country, professionals should, wherever possible, seek consent from both the children or young people concerned, and from their parents.

60. The consent, once given, should be recorded in a way that is culturally appropriate and compatible with local socio-legal norms. In a UK context, this is likely to involve both the young person and parents signing the consent form; but other methods of documenting the consent process, such as audio or video recordings, or a note by the researcher,

may be equally acceptable, particularly where those methods are chosen as a result of local community engagement in the development of the study. A signature on a consent form is only a means of *recording* a decision; it is the decision itself, and the (ongoing) process that underpins that decision, that is the ethically significant part of the 'consent'.

61. There will, of course, always be cases where this shared decision-making model does not work: because of the nature of the research; or because of disagreement within the family; or in cases where children and young people do not have the kind of family support envisaged above. We return to the latter two cases below. Where the nature of the research is such that parental involvement is believed to be inappropriate, or might undermine the research objective or even threaten a young person's well-being, we take the view that it may be ethically acceptable to approach children and young people in Case Three without parental knowledge or involvement. However, such approaches should be subject to specific review by a REC. (paragraph 6.7). It would thus be open for a REC to approve a proposal that children and young people in Case Three be invited to participate in research, such as research exploring young people's drug use or sexual activity, where there was good reason to believe that parental involvement in the decision would prohibit the research, or compromise the accuracy of the information received.

Children and young people in Case Two

- 62. As soon as children are able, even at a basic level, to express views and wishes about the research, we argue that researchers have an obligation to *involve* them in a way that is appropriate to their understanding and development, and that respects the particular parenting approaches of their parents. The term 'assent' is often used to describe these interactions with children who do not, as yet, have the capacity to make independent decisions about research participation. However, there is little consensus on what, precisely, assent means, or how or when assent should be sought. A requirement for written assent further risks focusing attention primarily on the *act* of obtaining a signature, and away from the ethically-significant *process* of involving and engaging children appropriately.
- 63. We thus suggest that much greater clarity with respect to the assent of children to participation in research would be obtained by distinguishing clearly between the process of involving children in participation decisions, and the manner in which this involvement is subsequently recorded.

Recommendation 14

We recommend that requirements in guidance and regulation to 'seek' or 'obtain' assent from children who are being invited to take part in research should be understood as requirements to *involve* children, as much as they wish and are able, in the decision about participation. In devising assent processes, researchers should primarily be concerned with how best to develop trusting relationships with children and communicate information appropriately throughout the research.

64. The ways in which this involvement may be achieved will clearly vary significantly. Information materials appropriate to children's level of understanding and to the cultural environment in which the research is taking place are important, but even more important is the emphasis to be placed on sensitive and skilled communication. Researchers seeking ethical approval of their studies with children should be able to

demonstrate that all those who will be interacting directly with children and families as part of the proposed research have the necessary communication skills to do so effectively.

- 65. The fact that children have been appropriately involved in the participation decision should be recorded for future reference. However, this record must not be perceived as the main point of the process (paragraph 6.12). Assent forms constitute one possible form of documentation. They are not, however, the only (or necessarily the best) way of recording children's involvement. Alternative forms of documentation might include inviting children and young people to co-sign the consent form with their parents, or for parents to note on the consent form that their child has been involved in the decision. Increasingly, though, it may become more appropriate to use interactive online technologies, both as a means of sharing information about the research and recording children's involvement. The format of record chosen to document children's involvement must also, crucially, be culturally appropriate. In some contexts, signing a form may be perceived as threatening, rather than empowering. In such cases, alternative methods of documenting both assent and consent, such as voice or video records, drawing pictures, or making a note in children's health records, should be employed.
- 66. We recognise that the approach to consent and assent advocated in this chapter represents a significant shift in current practice, in emphasising how context-specific and child-specific these processes need to be. Such an approach imposes additional challenges both for researchers, and for those responsible for the scrutiny of research proposals. Practical guidance on realising these aims in practice will be needed.

Recommendation 15

We recommend that research funders encourage or commission good quality research proposals exploring how the approaches to consent and assent put forward in this report might best operate in practice. Such research would provide a secure foundation for future good practice guidelines, tools and resources that are sensitive to a range of contexts.

Responsibilities to children and parents together: challenges in shared decision-making

67. Parents take very different views on how their children should be involved in decision-making. We suggest that the starting point for professionals should always be one of respect for the parent's role in determining how, and at what speed, their child develops towards being an independent decision-maker. When approaching children and young people about the prospect of research participation, professionals must therefore be sensitive to the very variable forms of family dynamic that may be in play. However, this respect for individual parental approaches must run alongside and, where necessary, be constrained, by professionals' own direct responsibilities to children and young people: to respect them as individuals and to have regard for their welfare. While professionals should respect parents' views with respect to their child's participation in decisions about research, parental preferences cannot act to cancel out professionals' own responsibilities. While parental consent renders their child's participation in research legally permissible, it does not make it mandatory, thus leaving an important area for professional discretion and judgment (paragraph 6.19).

- 68. Where disagreement about research participation arises within families, it is the professional's responsibility to engage with both parents and children, with the aim of negotiating an acceptable solution that is respectful of all parties. Young children's wishes cannot always be determinative, particularly where researchers and parents reasonably believe that they might obtain significant benefit from participation, and it may well be appropriate to persuade or cajole them. However, professionals' own responsibilities towards children, and in particular the importance of creating a trusting relationship with them, place strict limitations on how far they should proceed in the absence of consensus.
- 69. Where children (even young children with limited understanding of what is proposed) explicitly and consistently dissent, there will generally be both ethical and practical reasons why it would be right for professionals to accept that dissent, despite parental willingness to proceed. The more children are able to understand what is involved in a research proposal, the greater the justification needed to act against their clearly expressed wishes. The multiple factors in play in such cases, however, make simple 'yes' or 'no' answers as to how professionals should approach these difficult decisions impossible to offer (paragraph 6.24). Rather, they reinforce the fundamental importance of reflexive professional practice, directed towards the creation and sustaining of open trusting relationships with children, young people, and their parents.
- 70. Similar issues may arise where children or young people in Case Three wish to participate in a research study, but their parents do not agree. In such cases, professionals have an important role in seeking to inform and encourage parents. However, if these attempts prove unsuccessful, then in most cases participation in research should not go ahead (paragraph 6.25). Even in countries where the law recognises coexisting powers of children/young people and their parents to consent (hence providing for a legally effective consent from a minor), professionals must take into account the position of children and young people within their families, and cannot simply ignore the realities of family hierarchies and the consequences for those involved of overriding them.
- 71. Questions of professional judgment may become particularly acute in circumstances where professionals have dual roles, both as researchers, and as clinicians providing care to children and young people who might potentially participate in their studies. In such cases, professionals must ensure that their own legitimate interests in the success of their research are not permitted to compromise the interests of children and young people under their care.

Recommendation 16

We recommend that, where a protocol indicates that children and young people may be recruited by a health professional responsible for their care, research ethics committees should explore with researchers the justification for this approach. Where such recruitment procedures are appropriate, research ethics committees may wish to assure themselves that there are support arrangements in place, such as access to another member of the research team to whom families can turn for additional information if they wish.

72. As we note in Chapter 1, innovative or experimental treatments may, occasionally, be provided outside the context of research (see paragraph 1.6). We take the view that,

wherever possible, novel therapies of any kind should be subject to properly evaluated research. Where, exceptionally, novel treatment outside the context of research is appropriate (for example, in some cases of 'compassionate use') it should be regarded as a professional obligation of the health professional concerned to ensure that information about the outcome of treatment and the clinical course of the patient's condition is collected and made publicly available, for example through a registry or publication.

Recommendation 17

We recommend that the Royal College of Paediatrics and Child Health takes the lead with other Royal Colleges and relevant professional bodies in exploring how best to ensure that information as to the outcomes of 'innovative' or 'experimental' treatment given to children or young people outside the context of research is properly documented and made available to others concerned.

Responsibilities in the absence of parents

Temporary absence

- 73. Temporary absence of parents may arise either in the form of actual physical absence, or of 'situational incapacity' where parents are present but too shocked or distressed to make a decision. In such cases, professionals' responsibilities towards children and young people take on an added importance, as they will be exercising these responsibilities alone rather than in support of parents' decision-making role. If research decisions can reasonably be delayed until a parent is present and able to make a decision, clearly there is no justification for proceeding in their absence. However, there will always be some health-related situations linked, for example, with emergency care for children and young people, where the question of enrolling a child or young person in research without the support of their parent will arise. In such cases, the role of the REC in scrutinising the risks, burdens and benefits of the research will take on added importance.
- 74. Where a study involving emergency research in the absence of parental consent is approved by a REC, it will be critical to inform and involve parents as soon possible after the research begins. This process should not be understood as 'deferred' or 'retrospective' consent, but rather, first, as the provision of information about what has happened, and then as an invitation to consent for future procedures (where appropriate) and for the use of any data gathered as a result of the earlier procedures (paragraph 6.35). Similarly, where children and young people were in Case One at the time the research began because they were unconscious or in too much pain or distress, they should be invited to engage in discussion and participate in future decision-making as soon as they have recovered sufficiently to do so. Where children and young people were in Case Two at the time a decision to participate in emergency research was required, then all means (appropriate to the urgency of the situation) should be used to encourage them to participate in the decision. Unless there are very strong welfare reasons to the contrary, any hesitancy on the part of children or young people to participate should be respected. If young people are in Case Three, then their own decision to consent or refuse should similarly be respected.

Permanent absence

- 75. Some children may simply not have parents to support them at all. This may arise more often in low income countries, where a high number of children may be orphaned, living either in child-headed households or on the periphery of wider family groups without the regular support of a meaningful parent-child relationship. However, issues may also arise in high income countries in circumstances where teenagers live away from their immediate family as a result of relationship breakdowns, or where parental responsibility is exercised through institutional means: for example, where a local authority has parental responsibility for children and young people in care.
- 76. In the UK context, although the difficulties involved in seeking consent where parental responsibility is held at institutional level should not be underestimated, there will still always be *someone* who has the authority to give consent for looked-after children and young people (those in the care of the local authority) to take part in research. Work by the former Medicines for Children Research Network (MCRN) has demonstrated the crucial role played by individual research professionals in facilitating access to research for children in this situation; and also the importance of developing good working relationships with local social service departments, and raising their awareness of the potential value of such research participation.

Recommendation 18

We recommend that the UK children's research networks (Clinical Research Network: Children and the Scottish Children's Research Network) work with the Children and Family Court Advisory and Support Service (Cafcass) to develop good practice guidance for social services departments and researchers to facilitate the opportunities for looked-after children and young people to participate in research.

- 77. While consent from a person (or organisation) with parental authority will always be necessary for children in Case one or Case Two, somewhat different issues arise in the context of children and young people in Case Three. Where researchers have reason to believe that those eligible for their study may include looked-after young people, and the burden and risk of the research is low, RECs could be asked to consider whether exceptions to the need for parental consent could be agreed.
- 78. In low income countries, however, it may often be the case that there is no one at all who is able to give or withhold consent on behalf of a child without parents. Where professionals have reason to believe that participation in research includes the prospect of direct benefit for children and young people, then there may be good welfare reasons why they should attempt to facilitate their access to research that has been judged to be both of value and a 'fair offer'. Judgments like these, however, require confidence and reflexivity on the part both of the researchers responsible for the study, and the REC members responsible for scrutinising it. Local stakeholder involvement will play an important role in helping RECs to determine whether research in these circumstances does indeed constitute a 'fair offer' for these children and young people. The challenges faced by professionals in these circumstances highlight the critical importance both of researchers' access to training in ethical considerations and of capacity building for RECs. Where it can be foreseen at the planning stage that children without parental support are likely to be eligible to participate, additional protections, such as an independent advocate able to witness the recruitment process, could be considered.

79. For young people in Case Three, in the absence of any adults who are able to give a legally effective consent, the young person's own consent, or decision not to participate, should be determinative. In making a judgment as to whether children or young people have this degree of maturity, researchers may legitimately take into account the degree of control and responsibility that children or young people are used to exercising in other areas of their life. However, in so doing it is critical to take into account whether children or young people really are able to take on this responsibility without finding it an undue burden. The role of professional discretion is crucial in ensuring that children and young people are not inappropriately excluded from worthwhile research, while avoiding burdening an already over-burdened child.

Points to consider when carrying out clinical research with children and young people

- Have you involved children, young people and parents in the development of your study?
 - In the design of the study itself? (e.g. the number of appointments or interventions required)
 - In the development of easy-to-understand information about the study?
- Does your study represent a fair offer to prospective participants? Are you confident that the value of the study, and its likely risks, burdens and benefits, have been carefully weighed up from the perspective of potential participants? Have children, young people and parents been involved in identifying possible benefits, risks and burdens?
- Is expertise in a particular area of children's healthcare important in order for the REC to understand the approach taken in this study? Has this been communicated to the REC, so that it is well placed to obtain advice if necessary?
- Are you able to demonstrate how you will communicate, and discuss, information about the study appropriately and sensitively with potential participants and their parents, so that they are able to make free and informed choices about whether to take part? Does everyone in your team who will be interacting with children, young people and parents have the necessary communication skills?
- Good assent practice is about the *process* of involving children and young people meaningfully in decisions about research. Are the particular methods you have chosen for involving children and young people in decisions about taking part the most appropriate ones?
- Children and young people who have the capacity and maturity to make their own decision about your study should be invited to give consent (not assent), even if the law additionally requires parental consent. Does your consent process and documentation allow for this?
- Decisions about research participation should, wherever possible, represent a shared decision between parents and children/young people. How will you encourage shared decision-making?
- Is the subject matter of your research such that it may be appropriate or necessary to recruit children and young people *without* the involvement of their parents? If so, can you justify the approach you have chosen?
- What arrangements have you made to support children and young people who do not have a parent, or another adult exercising a parental role, so that they are not excluded from your study?
- Will clinicians be responsible for recruiting children and young people, for whom they are providing care, to take part in research? If so, is this the most appropriate approach? Have you considered alternative approaches?
- Does the information provided for children, young people and parents explain how and when they can find out about the outcomes of the research? Will those outcomes also be explained in accessible language?

Chapter 7

- 80. In a brief concluding chapter, we return to the question at the heart of our terms of reference: that of determining how a proper balance is to be achieved between the benefits that clinical research may bring, the involvement of children and young people, and the protection of research participants. Drawing together the conceptual conclusions and recommendations that have emerged from our analysis, we argue that a critical feature of ethically robust research in which this balance is achieved lies in the recognition of children, young people and parents as genuine partners with professionals in the whole research endeavour. Clinical research must always be with children and young people, not 'on' them: they are not mere passive subjects but rather active participants in a joint enterprise of research. Such an approach casts a whole different light on how we understand the notion of the vulnerability of children and young people in research, and on how the potential for such vulnerability can be minimised through active participation of children, young people and parents in the prioritisation, design and scrutiny of studies.
- 81. Such partnerships complement, but do not replace, the responsibilities of professionals, whose practice should be guided by the professional virtues of trustworthiness, openness and courage, and who remain ultimately responsible for ensuring the proper protection of research participants. A third feature of ethically-robust research rests in its recognition of the diversity of both childhood experience, and the context in which research takes place, and the demands this diversity places on reflexive professional practice.
- 82. Finally, we note the commitment to evidence-based care that will be required in order to reach the point where clinical research is genuinely seen as a core 'everyday' part of health service provision. Substantial commitment will also be required on the part of policy-makers to increase knowledge of research among the general public.

Recommendation 19

We recommend that the All Party Parliamentary Group on Medical Research should take the lead in exploring ways of increasing general public awareness of clinical research in general, and of the benefits of such research for children's and young people's health and healthcare.

83. We thus conclude our report by highlighting the central importance of further work exploring the most effective methods of increasing knowledge and awareness of research, and the means of implementing them. For research to become part of the 'core business' of the NHS and other health services, it is important that we see an increasingly positive attitude towards research among potential participants and health professionals, together with confidence in the ethical robustness of that research.