

The contribution of nurses, midwives and health visitors to child health and child health services: a scoping review

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prepared by

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Executive Summary

Background

- Child health in England has improved greatly during the 20th century but significant health needs remain.
- Nurses, midwives and health visitors are a key component of the health care workforce upon which many child health services rely heavily for their effectiveness.
- These different occupational groups have distinct histories having developed in response to different health needs which until recently resulted in little interchange or shared vision regarding the totality of child health services.

Aim and objectives

The aim of the project team is to explore the actual and potential contribution that nurses, midwives and health visitors (N,MW&HV) make to child health and child health services, within the context of current and future service developments.

The specific objectives of the scoping project are as follows.

1. To conceptualise the actual and potential of N,MW&HVs to child health as a basis for further enquiry.
2. To consider the impact of the N,MW&HV contribution on child health outcomes.
3. To map out current and emerging organisational structures, policies and N,MW&HV roles within child health services.
4. To identify factors that enable and inhibit the contribution of N,MW&HVs.
5. To provide an account of the user perspective on the contribution and the extent to which N,MW&HVs are addressing the health needs of children.
6. To provide guidance for future enquiry in relation to the N,MW&HV contribution to child health.

Method

The scoping review was conducted in three phases: focused literature reviews, stakeholder consultation and synthesis of findings.

Topic areas for the focused reviews were selected with reference to the consultation document *Getting the Right Start* (Department of Health, 2004) and to reflect a broad range of practice areas and roles. The topic areas were: children with asthma; children with cancer; pre-school children in disadvantaged families; management of minor ailments in pre-school children; school health promotion; care of sick neonates; teenage pregnancies; children with complex needs; children in need of protection and 'looked after' children; and troubled school children.

Literature was identified primarily from electronic databases with secondary searching as appropriate. In total, 13,172 abstracts and titles were examined and 393 items were selected for inclusion in the reviews. Mini policy reviews were undertaken with reference to each topic area.

For stakeholder consultation, 113 delegates attending two participative conferences, discussed the contribution of N,MW&HVs.

The outputs of the focused reviews and the conference data were synthesised to conceptualise the contribution of nurses, midwives and health visitors across the core dimensions of contribution, namely: assessment, health promotion, clinical care, and health care organisation.

Findings

Assessment

The role of N,MW&HVs initiating assessment varied and was observed to have 4 objectives including: identification of need; confirmation of need; allocation of level of care; and evaluation of the effect of therapy. Multiple underlying 'gazes' (health promoting, holistic, medical) were reported within N,MW&HV practice. There was little evidence of integration between organisations. The focus was mainly at the individual level of child, young person or parent. There was little evidence of how effective assessments were in determining health needs.

Health promotion

Health education was the dominant reported form of health promotion in the form of therapeutic communication, individual and group health education. N,MW&HVs were also involved in peer group initiatives, community development and preventive treatment. Innovative ways of helping young people access health information was a recurrent theme. There was little evidence relating to the outcomes of health promotion interventions.

Clinical care

This contribution included emergency care, gateway/directional care, curative actions, symptom alleviation, care coordination, disorder adjustment/support, rehabilitation and palliative care. The clinical activities undertaken were broad and complex ranging from traditional nursing to supporting others who deliver care and substituting for doctors. The contribution of N,MW&HVs regarding comforting, nutritional management and safeguarding children was not extensively reported.

Health care organisation

There were five inter-related contributions, which were focused on: workforce development, management of the care system, cross-boundary working, health promoting systems and service development. The contributions were complex and multi-levelled from strategic to ward/community level. Six cross-cutting themes were identified: age appropriate care; improved service access; continuity of care experience; user involvement; optimal care environment; and evidence-based care.

General findings

A growing trend of specialisation was noted, comprised of two streams: doctor substitution, and specialisation in complex health technologies and care systems. The development of sub-specialities was also noted regarding delivering care to special groups, such as Sure Start. Key issues raised included: loss of universality, fragmentation of care, and location of the traditional role.

Emergence of increased intra-professional activity as well as inter-professional working.

The way services are organised and the resources available impacts upon the contribution and may be expressed as enablers and inhibitors to the contribution of N,MW&HV.

Users: There was little material regarding the contribution. Key themes included: some negative views of health services and health care professionals; young people with chronic illness find school-based care more acceptable; parent involvement was wanted but not necessarily as care deliverer; choice, flexibility, responsiveness and accessibility were desired; and care availability was important.

Limitations

Limitations of the scoping exercise include the following.

- the potential bias of the reviewed materials, which emphasised the novel to the neglect of established practice
- limited stakeholder consultation

- limited review of policies and organisational issues.

Conclusions

The contribution of N,MW&HVs is multi-faceted and integral to the delivery and organisation of child health services in England.

Practice is evolving to become more specialised with the emergence of new roles.

Traditional roles and activities also require attention.

An extensive research programme is recommended to generate descriptions of current activities, evaluations of the effectiveness of N,MW&HV interventions and comparisons of roles in different models of care.

The Report

Section1 Background to the review

1.1 Child health services

Child health in England greatly improved during the 20th century, reflecting improved social conditions, smaller families, public health initiatives and medical advances (Ross *et al* 1998). While abject poverty and malnutrition may have abated, significant challenges persist, with child health statistics consistently demonstrating an unacceptable difference in health outcome across socio-economic groups (Acheson 1998). These differences contribute to the UK's relatively poor standing in the league table of European infant mortality rates (WHO 2004).

Medical advances provide the opportunity for enormous progress in morbidity and mortality rates, with health problems of the past – such as premature birth, cancer and AIDS – increasingly regarded as treatable, if not yet curable. However, treatment advances may be accompanied by long-term disability through which children and young people and their families will need ongoing support if they are to achieve their maximum potential and well-being (Beresford *et al* 1996).

Contemporary child health services increasingly need to work within a social model of health, which is sensitive to the context of children's and young people's lives, if major health gains are to be realised. The evidence consistently demonstrates an inter-relationship between socio-economic factors and health outcome (Acheson 1998) and there is an increasing body of evidence that can inform practice to reduce these health inequalities (Roberts 2000). The *Wanless Report* (Wanless, 2002) has highlighted the enormity of the public health issues facing the UK and provides the background for the imperatives relating to the child population, namely, obesity, sexual health and risk taking behaviours such as smoking, alcohol and drug use.

While the majority of children grow up in safe and loving families, a number of children live with danger (Lloyd *et al* 1997). This might include unsafe urban areas as well as abusive home circumstances in which bullying, abuse, neglect and domestic violence occur. The tragic case of Victoria Climbié is a reminder that despite the existence of public services and previous child abuse inquiries, inter-agency working is not always effective (Laming 2003). Every Child Matters (DfES 2004) emphasised the importance of good support services together with timely intervention, clear accountability and better integration of services as foundations of effective child protection. Indeed, the need for effective cross-boundary working is not only important for promoting child safety but also for

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ensuring continuity of care as children and young people and their families experience different components of the NHS during their health careers.

Nurses, midwives and health visitors (N,MW&HVs) are a key component of the health care workforce upon which many services heavily rely for their effectiveness. A large survey was conducted in 2002 to map the current numbers and place of work of registered children nurses in England (practice nurses, school nurses, health visitors and midwives were excluded) and revealed a potential shortfall in qualified nurses which was particularly acute in some specialist services (Elston & Thornes, 2002). No data could be located regarding the current numbers of midwives, health visitors, school nurses and practice nurses and the extent, if any, of staff shortages.

This scoping review was conducted in three phases: focused literature reviews acknowledging the health needs and policy context of each review topic; stakeholder consultation; and synthesis of the findings. The methods adopted are described in Section 2.

1.2 The antecedents of the professional contribution

Nurses, midwives and health visitors have distinct histories, each profession having developed in response to different health needs. This distinctness has resulted in parallel development of their roles with, until recently, little interchange or shared vision of a contribution to the totality of child health services. In part, this uni-discipline approach has been reinforced by administrative structures. For example, at the inauguration of the NHS in 1948 paediatric nursing was hospital-based while health visiting and school nursing were local authority-based. Further, each discipline was focused on narrowly defined areas of practice. Thus sick children were perceived as the domain of registered sick children's nurses working in hospitals (with mothers responsible for the home care); neonates and expectant and delivered mothers were perceived as the domain of midwives; infants and young children living at home were the responsibility of health visitors; children attending schools were the responsibility of school nurses; while children with mental health problems came under the aegis of psychiatric nurses. Over time, services have been reconfigured both as the result of administrative changes and advances in treatment. Consequently most N,MW&HVs are employed within the health services, albeit administered through a variety of local service structures such as acute trust directorates and PCT localities.

Children's nurses

The Platt Report (Ministry of Health, 1959) emphasised the need to avoid the detrimental consequences of a child's separation from its family and is generally recognised as a watershed in paediatric hospital provision. Since that time, there has been a continual reduction in both inpatient admissions and lengths of stay (Audit Commission, 1993) with parallel increases in day-case work and home care. Thus day-case work not only includes surgical procedures and medical investigations but also treatments that cannot be delivered in the home setting, such as radiotherapy and chemotherapy.

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Prior to 1989, registered sick children's nurse training focused on care of the hospitalised child, with advice and support in the home falling to health visitors and 'hands on' nursing delivered by district nurses, if they were willing. The undesirability of this arrangement spawned paediatric home-care teams staffed by qualified paediatric nurses, some of whom also hold specialist community nurse qualifications. Paediatric community nursing services have enabled treatment at home thereby avoiding hospital admission. However, these services vary across England both in terms of coverage and the type of nursing support available, reflecting their local history (While & Dyson 2000).

Thus some areas have access to a hospital outreach service with an emphasis upon specialist clinical interventions, while others have access to an augmentation of primary care with an emphasis upon community and primary care. Increased use of home care has also been enabled by the development of portable technology (Kirk 1999).

Continued medical advances together with technological developments have also impacted upon paediatric hospital nursing with nurses taking on increasingly technical work combining advanced clinical procedures with the management of technology in their support of children needing intensive and high dependency care. This change has redefined the usual sphere of work in general paediatric wards and outpatient clinics with increasing numbers of unqualified health care assistants undertaking routine care procedures under the supervision of trained nurses.

Children's psychiatric nurses

Child mental health services emerged from adult psychiatric services when it was acknowledged that adult provision was not suitable for troubled children and their families. Similarly, child psychiatric nursing has developed as a sub-discipline of adult psychiatric nursing rather than paediatric nursing, with in-patient facilities situated within psychiatric hospitals.

Even today child mental health nurses are educated solely within the mental health nurse educational system, qualifying as generic mental health nurses before developing their specialist skills, training and experience. Further, their location within mental health services, which focus upon children referred by others due to their impaired mental state, has ensured their separateness from all other child health services. Indeed, the mapping of child and adolescent mental health services (CAMHS) across four tiers of provision highlights the challenge of integrating mental health promotion across all N,MW&HV practice within child health services. Much depends on trained mental health staff cascading their expertise beyond the specialist services of Tiers 3 and 4.

Midwives

Midwifery has had a distinct history, which has maintained its separateness from nursing. Like nursing, the registration act at the beginning of the twentieth century (1902 Midwives Act) formalised the competencies of practitioners. However, unlike nursing at this time, most practitioners had a community focus, founded on a social model of health: home deliveries were the norm (Towler & Bramall 1986). It was only with the inauguration of the NHS in 1948

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that deliveries and employment of midwives moved to hospitals. Since then, midwives have increasingly had to manage the potential conflicts between the social and medical models of health as they negotiate their roles with medical colleagues.

Recently midwifery practice has developed outreach models of practice, such as antenatal care delivery in community settings. However, midwives have always had little contact with nurses during training, with separate educational provision and social networks. Direct-entry training, which began in the 1990s, now forms the dominant entry pathway to the profession, accentuating this separateness and possibly impeding intra-professional working between N,MW&HVs.

Health visitors

Health visiting has also changed, with its post-war development into a family visitor (Clark 1973) and then universal child protection service (Robinson 1982). The increased professionalisation of health care had the potential to disempower parents, who could find their parenting style assessed as sub-standard. Health visiting was refocused in light of the first Hall Report (1989), which recommended a minimum number of universal child health checks at set intervals. It also advised that health visitors should 'listen to' parents, who know their child best and have a role in the identification of developmental difficulties. Subsequent editions of *Health for All Children* (Hall & Elliman 2003) have increasingly emphasised the social dimensions of health and particularly the importance of health promotion, primary prevention and timely intervention to minimise risk. Routine universal home visiting has been replaced by focused support for families who are in need, with the emergence of positive-parenting support and similar programmes. Increasingly, health visiting is also being called upon to help families manage the minor ailments of young children and to take a lead in public health work at a local level.

Harris (1995) has argued that the establishment of the school health service marked an important change in health care policy in the early 20th century with a departure from a concern solely with the environment to a concern with the individual child and their long-term well being. Additionally, the systematic collection of child health data provided a compelling rationale for the creation of the welfare state and a universal health care system. However, frequent reorganisation together with different health priorities have had a profound effect upon the development of health service provisions in schools despite the 1989 Children Act and addenda and the recent emphasis upon the imperative of public health. The absence of a distinct career path and the relatively small numbers of school nurses has also hindered their contribution to child health over time.

Summary

These different antecedents may provide role security and the foundations for appropriate practice within the context of changing health needs. Alternatively, they may lead to an insularity that impedes flexibility and the cross-boundary working needed within current child health services (DfES & Dept of Health

2004). However, common to all of the N,MW&HV disciplines is the very limited evidence base for practice, reflecting the lack of trials and rigorous evaluations. Indeed, a mapping exercise and literature search by Robertson *et al* (2002) concluded that there was a lack of evidence that children's nurses make a difference.

1.3 Cross-boundary working

The Laming Report (2003) showed that poor inter-agency working was a key component of the failure of the child protection system. In the light of these findings, more effective collaboration between services has become a consistent policy priority (Dept of Health, 2004; DfES, 2004; DfES & Dept of Health, 2004).

However, good multi-agency working between health, social services and education is not only imperative for children in need of protection, but also for child mental health, children with disabilities or chronic illnesses, excluded pupils, and looked after children (Sloper, 2004). The evidence suggests that poor collaboration places additional demands upon families and carers who find themselves dealing with different professionals and organisations thereby adding to their care burden and creating greater difficulty in accessing information and services. Indeed, there have been calls in the past for the establishment of 'key workers' to manage these problematic interfaces. However, there is no evidence which models of cross-boundary working yield the most positive outcomes for children and their families (Sloper, 2004). Nonetheless, if services come from different sources coordination is important to improve children's and families' experiences.

Children's Trusts provide a vehicle to promote integrated processes focused around the needs of children and young people. Joint commissioning underpinned by pooled budgets is designed to ensure that packages of services are of the highest quality through the most efficient use of resources. The interim national evaluation of the early 35 Children's Trusts (Husbands *et al*, 2004) has found a wide range of dynamic models in use, reflecting their early stage of development. However, all trusts have an emphasis upon sharing information, partnership in financial arrangements and commissioning, and there is greater multi-disciplinary and inter-agency training. Unfortunately there is little mention of the contribution of nurses, midwives and health visitors in the interim evaluation.

Section 2 Method

The method employed to undertake the scoping exercise had two main components: targeted literature reviews and participative conferences. The scoping was guided by an expert panel. The members were selected to provide specialist knowledge for each targeted review.

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The methods used within the scoping exercise are presented under the following headings.

- Aim and objectives
- Initial conceptualisation
- Literature review method
- Stakeholder conference method
- Synthesis

2.1 Aim and objectives.

2.1.1 Aim

To explore the actual and potential contribution of nurses, midwives and health visitors (N,MW&HV) to child health and child health services within the context of current and future service developments.

2.1.2 Objectives

The specific objectives of the scoping project are as follows.

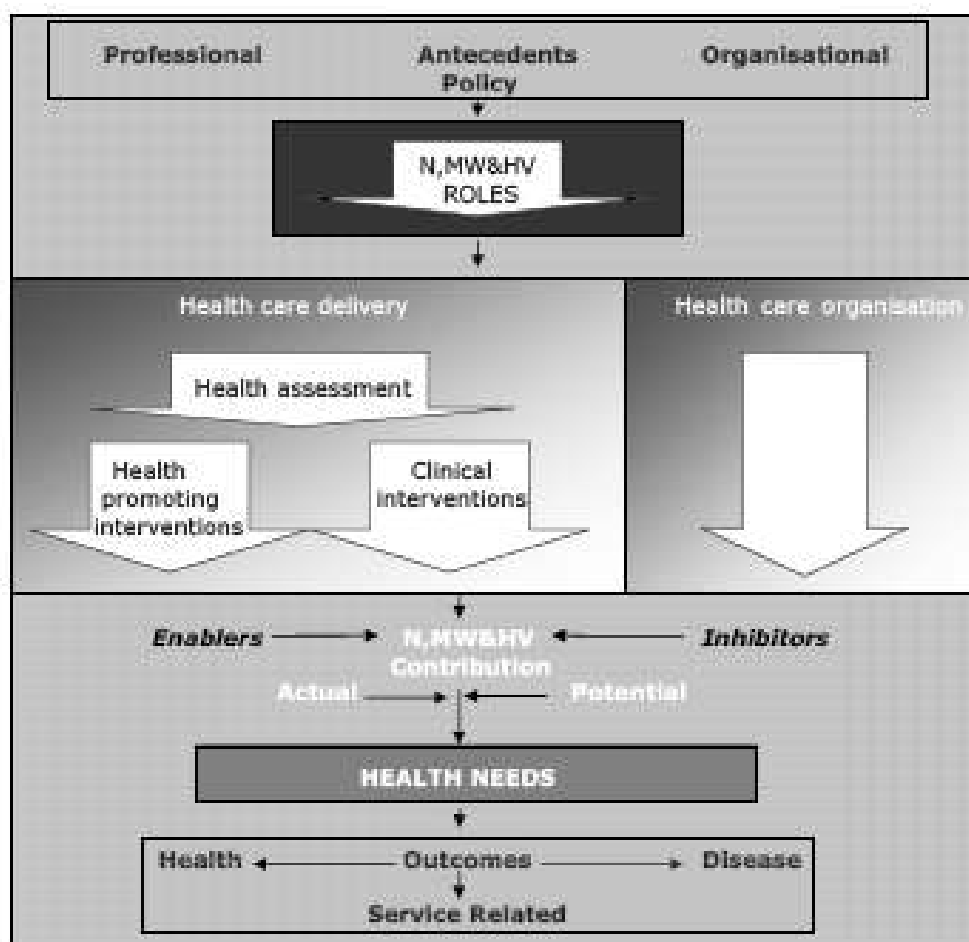
1. To conceptualise the actual and potential of N,MW&HVs to child health as a basis for further enquiry.
2. To consider the impact of the N,MW&HV contribution on child health outcomes.
3. To map out current and emerging organisational structures, policies and N,MW&HV roles within child health services;
4. To identify factors that enable and inhibit the contribution of N,MW&Hvs.
5. To provide an account of the user perspective on the contribution and the extent to which N,MW&HVs are addressing the health needs of children.
6. To provide guidance for future enquiry in relation to the N,MW&HV contribution to child health.

2.2 Initial conceptualisation.

The scoping was guided by an initial conceptual framework, mapping out the key dimensions of the contribution of N,MW&HV to child health (see Figure 1, below).

Child health was taken to comprise health needs along the continuum of positive health to disease-specific needs. Child health services comprised all those addressing health needs along the continuum. The framework provided the scoping review with a degree of structure to facilitate the identification and organisation of review materials and to provide a focus for the stakeholder conferences.

Figure 1 Initial conceptualisation



This structure was necessary to enable the scoping exercise to meet its objectives within the 9-month timeframe and limited resources. The conceptual framework was developed by the review team with reference to the expert panel supporting the study and through preliminary exploration of the literature.

More detailed conceptual frameworks were created for each of the targeted areas and in relation to the core dimensions of the contribution relating to care delivery and organisation (these are presented in Appendix 1). While this conceptualisation placed some structure on the way materials were collected and organised, the headings were broad enough to ensure that additional factors relating to the contribution were not excluded. These initial conceptual models were also reviewed at the participative conferences.

2.3 Literature review method

The contribution of N,MW&HVs to child health is broad, complex and multi-levelled. It was important, therefore, to ensure that the strategy used to determine the contribution was broad and inclusive. However, within the resources available for the scoping exercise, it was not feasible to sample all the practices, roles and activities that determine the contribution.

The strategy adopted was based on the selection of a number of topic areas reflecting a range of practice areas to provide focus for the scoping review. To ensure that the scoping review addressed 'emerging structures' (as demanded by the commission), alongside more traditional roles, the topic areas were selected with reference to the *Getting the Right Start* (Department of Health, 2003 a & b) documents that formed the basis for the final *National Service Framework for Children, Young People and Maternity Services* (DfES & Dept of Health, 2004). The topics chosen for the targeted reviews were carefully selected to ensure that a broad range of practices and roles (including a balance of nurses, midwives and health visitors) were included and that there would be opportunities to examine cross-boundary working. The rationale for each topic area is summarised in Table 1 (see page 20).

While this pragmatic approach enabled a broad range of material to be incorporated within the review, it is important to acknowledge the limitations of this strategy. The risk of adopting this approach was that it could have produced very general and largely descriptive accounts of the contribution without generating any new insights or theoretical constructions of the nature of the contribution. An alternative approach that could have been utilised to help reduce this risk would have been the application of a particular theoretical gaze through which to view the materials. The application of an organisational management theory such as contingency theory would have helped the review identify the location and nature of the contribution of N,MW&HV within different organisational contexts. Such an approach would also have facilitated the synthesis of the material into a common framework. Contingency theory is a particularly useful model as it contains both functionalist (i.e. organisational structure, roles, characteristics and relationships) and neo-Marxist (i.e. conflicts, hierarchies and change) perspectives thereby enabling a comprehensive analysis of complex organisational structures that are typical in health services at both the macro and micro levels.

However, the danger of imposing such a specific view is that it limits the discovery of other dimensions that may be relevant to a broader understanding of the contribution. The purpose of a scoping exercise is to 'map rapidly the key concepts underpinning a research area and the main sources and types of evidence available' (Mays *et al*, 2001 p.194). In addition, scoping reviews can also be useful in identifying any underpinning theoretical tensions within a topic so that imposing a particularly theoretical view from the outset could prejudice the discovery of such tensions. A further argument against the adoption of a strong theoretical approach was

that it may have been difficult to impose it on the highly heterogeneous and often low-quality material available to the review.

An organisational perspective in isolation would have reduced the scope of the review, since the contribution of N,MW&HV to child health is not only organisational but clinical, and is expressed across the health/illness continuum. Therefore, it is contended that the more general approach adopted was more suited to this task, with the initial conceptual model ensuring that the review addressed both the clinical (care delivery) and the organisational facets of the contribution.

Other approaches such as meta-ethnography and systematic review were deemed inappropriate as they are better employed in relation to more specific questions, although some of the techniques employed within these approaches were adopted to help in data retrieval and analysis.

2.3.1 Identification and retrieval of items

Items of literature were identified primarily from electronic literature searches with secondary reference being pursued where appropriate. For some searches the electronic searches were augmented with hand searches of particular journals (such as *The Community Practice Journal*). Members of the expert panel also suggested additional items that they viewed as important. Grey literature relating to policy and organisational-based material were also identified by searching government and specialist organisation websites. Random sampling of papers was employed for three searches (asthma, cancer and complex needs). The reason for this was pragmatic, since these areas contained a large volume of relevant material and, given the time constraints, it was not feasible to review all the material.

All the papers selected for inclusion in these reviews following the initial screening of abstracts and titles were assigned a number and were entered onto a database, which generated a random sample of 50 papers.

The searches were directed by explicit search terms relating to the topic (e.g. asthma, free text and indexed terms), the target population (synonyms for children and young people), and N,MW&HVs. The actual terms used are reported for each review. The searches were conducted on the following databases: Medline, CINAHL, BNI, ChildData, Caredata, and the Cochrane Library (which includes HTA database).

2.3.2 Inclusion criteria

As this was a scoping exercise, a broad level of suspicion was observed to expand rather than constrict content areas. However, to be included, the item needed to provide information on the actual or potential contribution of N,MW&HVs to child health in an explicit and unambiguous way (manifest presentation of ideas or example).

Care was taken to avoid repetition in item selection, although inevitably some elements of contribution were stronger in some topics areas than

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others. While the primary focus of the work was to identify the contribution within England and Wales, overseas material from industrialised nations (North America, Europe and Australasia) was included to identify potential N,MW&HV roles and models of working within the targeted search areas. However, only material which was considered to be potentially transferable was included and practices deemed by reviewers to be context specific were excluded.

Table 1 Rationale for targeted review

NSF Module	A. Acute care: hospital and other services for sick children	B. Healthy children and young people	C. Maternity	D. Disabled children and long term conditions	E. Children in special circumstances	F. Mental health and psychological well-being
Target areas	1.Children with asthma. 2. Children with cancer	1.Pre-school children in disadvantaged families. 2.The management of minor ailments in pre-school children. 3. School health	1.The care of sick neonates 2.Teenage pregnancies	1.Children with complex needs	1.Children in need of protection and looked after children	1.Troubled school children
Rationale for sample	1. Explores contribution in relation to: emergency, acute and chronic care management. 2. Explores in put of nurses throughout the 'cancer journey'	1. Explores the role of NM&HVs re: parenting & family support. 2. Explores advice and treatment for minor ailments. 3. Explores the contribution to health promotion.	1.Explores the in put of nurses and midwives in managing the care of sick neonates through the acute phase, discharge planning and follow-up. 2. Explores strategies to reduce teenage pregnancy.	Explores a whole range of different issues including: cross boundary working; case management and care planning; and support for families.	1.Exploring the contribution of NM&HVs in child abuse and in supporting looked after children.	Explores the contribution of NM&HVs incl.CPNs to psychological and psychiatric care.
NM&HV groups	Paediatric nurses. A&E nurses. Community paediatric nurses. Palliative care nurses Practice nurses. School nurses. Specialist nurses.	Midwives. HVs. Practice nurses School nurses. Public health nurses. NHS Direct nurses. Walk-in Centre nurses.	Neonatal intensive care nurses. Midwives. Community paediatric nurses. HVs Practice nurses. School nurses. Family planning nurses.	Learning disabilities nurses. Community paediatric nurses HVs. School nurses. Midwives. Paediatric and specialist nurses.	Paediatric nurses. HVs. School nurses. Child protection advisors.	Nurses working in primary & secondary care including those specialising in mental health. School nurses.
Cross boundary working	Interface between primary care, A&E, in-and out-patients services. Interface primary, secondary & tertiary care. Care of the dying child.	Multi-agency collaboration between health, education and other services. Issues regarding professional roles, particularly in relation to the role of the GP & SSD staff.	Primary, secondary & tertiary care interface; Inter-agency collaboration and information sharing	Primary & secondary care interface; case management & therapies; cross boundary interface SSDs, LEA, voluntary sector.	Interface between SSDs, education, health services & voluntary sector. Links to criminal justice and immigration systems.	Interface between primary and mental health services. Cross boundary interface with SSDs, education and health. Support of families. Links to criminal justice system.
Emerging structures	Links to: developments in primary care; clinical networks; Children's Trusts; continuity of care; and nurse prescribing.	Links to: Sure Start; Children's Centres, nurse prescribing; NHS Direct and Walk-in-Centres.	Links to: clinical networks; inter-professional role developments; Children's Trusts; Sure Start.	Links to: developmental continuity; Sure Start; Children's Trusts; Quality Protect programme.	Links to: Children's Centres; Sure Start	Links to: development of CAMHS; Sure Start; Children's Centres.

Data were extracted by two researchers who worked closely together to ensure consistency in data extraction. Extraction was facilitated by use of an extraction instrument embedded with an electronic database. The extraction tool was developed and refined through pilot searching. The content of the extraction tool was based on the initial conceptualisation (Figure 1, see page 20) and covered the following areas:

- item details (type of item e.g. descriptive, evaluative, review etc.)
- target population (e.g. child, young person, parent etc.);
- role details (type, level)
- role contribution (dependent, complementary, independent)
- contribution to services (development, delivery, access, workforce, education and interface)
- assessment details (health or clinical assessment at different levels, individual, parent, community etc.)
- intervention details (what the N,MW&HVs did to whom and where)
- outcomes (the results of the intervention or their intended targets)
- enablers and inhibitors (factors recorded as enabling or inhibiting the contribution)

While the extraction tool provided a degree of prior structure in determining what was collected and how the data were organised, each section had open categories to enable other material to be identified beyond the original conceptualisation. Any materials reporting user views or experiences were also collated and are presented discretely within the reviews.

Each item was examined in relation to these areas and any relevant content recorded. This meant that within the databases (different files were used for each search) a large volume of material was accumulated in relation to each of the different dimensions of contribution. Given the complexity of the roles and activities contained within the material, many practices were assigned to multiple categories in order to capture the different elements of those activities. While formal critical appraisal was not undertaken the researchers recorded the methods used and made a crude estimation of rigour (weak, moderate or strong).

2.3.4 Policy reviews and health needs

In addition to the main searches of practice activity, general reviews of key policies and child health needs were undertaken for each topic area. These reviews used mainly grey literature sources and also national statistical data on the prevalence of different health problems. To ease synthesis, the policy areas were grouped into the core dimensions of contribution (assessment, health promotion, clinical and health care organisation).

2.3.5 Synthesis

The method used to synthesise the material was thematic content analysis to enable theoretical synthesis (Forbes and Griffiths, 2002). Once the relevant content from the items included in the search was entered onto the database via the extraction tool, that content was then examined by the researchers and categorised. For example, the raw material from an item identified: 'nurse recommends over-the-counter (OTC) treatment for head lice'. This action was categorised as 'advice on OTC products'. Once all the content was categorised they were organised into the dimensions of contribution and group thematically, for example, advice on OTC products was identified as a clinical intervention and grouped under the thematic heading of health technology interventions.

Once all the content had been thematically assigned it was possible to map those thematic groups onto the policy and health needs. The mapping identified whether N,MW&HVs were contributing to the identified policies or needs and then considered whether that contribution was substantiated or not. The level to which it was substantiated was estimated as either weak (multiple examples with little empirical base or single rigorous studies) or strong (multiple examples support by rigorous study design).

2.3.6 Validation

The targeted reviews were examined by the specialist lead for each topic to assess whether the review had identified the key elements of the contribution. The themes and categories identified are presented with the item codes so that it is possible to determine the source items for each category. The output from the literature review was also compared to the output from the stakeholder conferences and any differences incorporated. It was also intended that the emergent thematic categories be validated in new material to establish the generalisability of the themes. However, there was insufficient time to achieve this aim.

2.4 Stakeholder conference method

The stakeholder consultation was an integral part of data collection for the review. The consultation aimed to seek first-hand accounts of the roles of N,MW&HVs as a supplementary source of data to extend the representation of the subject matter in its broadest understanding (Morgan, 1997).

The stakeholder consultation process occurred through two participative conferences in October and November of 2004. The conferences were held in Manchester and London to encourage countrywide representation. Attendance of key stakeholders representative of those involved in all aspects of child health including service users, social workers, medical staff and all specialities of nursing was sought.

2.4.1 Recruitment

A number of strategies were employed to recruit stakeholders for the conferences. In seeking balanced representation consideration was given to both geographical boundaries (to incorporate rural and urban settings) and the range of nursing roles and other contributors to care.

Attendance at the Manchester conference represented not only local cities (Manchester, Liverpool, Preston, Leicester and Leeds), but also representation from the Lake District, York, Gloucester, Swindon, and West Yorkshire. At the London conference there were a greater proportion of London and South East-based health professionals, with additional representation from Warwick, Devon, Northampton and Cardiff.

However, the greatest challenge lay not in nationwide representation, but in reaching N,MW&HV working in direct patient/client contact. Information sent to Heads of Nursing at hospital trusts and PCTs did not always cascade the information down through their health care organisations, making recruiting clinically-based nurses, midwives and health visitors difficult.

Direct invitation

The initial strategy comprised personal recommendations from the project team members. Invitations were issued to nurse, midwife and health visitor leads in NHS trusts, professional opinion leaders and relevant professionals and colleagues of project team members. Thereafter, contact was made with a number of networks and healthcare organisations as detailed below.

Professional fora

Contact was made with the Royal College of Nursing, Royal College of Midwives and British Paediatric Nurses Association, Community Practitioners and Health Visitors Association, Royal College of General Practice, Royal College of Paediatrics and Child Health, Royal College of Speech and Language Therapists, Neonatal Nurses Association, Nurse Practitioners Association, Advanced Neonatal Nurse Practitioners Association, and a public health network. Conference information was subsequently disseminated via specialist networks through the auspices of the fora leaders.

E-mail

Heads of Nursing of NHS Trusts were identified via websites and sent information about the conferences asking for representatives from across their service provision. Similarly voluntary organisations across the spectrum of children's charities (eg BLISS, Contact a Family, Candlelighters, CLIC, Scope, Mencap) were contacted and invited to identify a representative to attend one of the conferences.

Telephone calls

Where e-mail addresses were not readily available, telephone contact was also made with nurse managers within hospitals and PCTs who were asked to nominate staff and relay conference information to their clinical staff.

Snowballing

Recruitment through a snowballing technique became a prominent method in locating interested stakeholders. As information was passed on and e-mails forwarded, passive recruitment subsequently followed.

2.4.2 Conference participants

At recruitment participants were asked to identify their topic area of interest and once the maximum number of delegates for each group had been achieved, additional participants were given a waiting list place to ensure that all delegate places would be utilised. A systematic approach to recruitment attempted to ensure a good representation across the stakeholder groups.

The ten topic areas for discussion during the morning session were: children with asthma, children with cancer, pre-school children from disadvantaged families, the management of minor ailments in pre-school children, school health promotion, care of the sick neonate, teenage pregnancies, children with complex needs, children in need of protection and 'looked after children', and troubled school children.

Seventy participants were identified for each conference representing nurses, midwives and health visitors, service users, voluntary organisations, medical and allied professionals. However, despite this recruitment strategy only 57 of 70 delegates (81%) attended the Manchester conference and 56 of 70 delegates participated (80%) attended the London conference. The occupational titles of the conference participants are set out in Table 2.

Table 2 Conference Attendees

Attendees	Manchester	London
Paediatric oncology nurse	2	3
Paediatric asthma nurse	3	2
Paediatric cardiac nurse	1	0
Paediatric renal nurse	1	0
Neonatal nurse	2	1
Paediatric diabetic nurse	0	1
Cystic fibrosis nurse	0	1
Midwife	9	7
Health visitor	8	6
School nurse	6	4
Community paediatric nurse	3	2
Looked after/vulnerable children's nurse	4	2
Child and adolescent mental health nurse	5	2
Learning disability/complex needs nurse	2	1
Public health nurse	0	5
General practitioner	0	3
Public health consultant	0	3
NHS Direct nurse	0	1
Nurse manager	2	2
Practice development nurse	0	1
Nursing lecturer/academic	2	3
Nurse researcher	0	1
RCN officer	0	1
Social worker	4	0
Sure Start worker	2	0
Service user	1	2
Support organisation rep.	0	2
Total in attendance	57	56

2.4.3 Conference structure

Each conference adopted a structured format comprising a presentation of the aims of the scoping exercise and an outline of a draft schema of N,MW&HV roles prior to details of the tabletop discussion. The importance of all participants' views was emphasised together with the obligation to keep the tabletop discussions confidential. In addition there was scheduled time for consensus building within each group and full conference feedback after each tabletop discussion session.

2.4.4 Group composition

With different aims for the morning and afternoon session, two strategies were employed in allocating participants to appropriate groups for tabletop discussions. The morning sessions focused on specific areas of child health and as such relevant professionals were grouped together to include D grade nurses, nurse consultants and doctors in addition to user or voluntary organisation representation. Delegate name badges were distributed which disclosed only the participants name and not their professional or academic title to minimise hierarchical and professional boundaries and their impact upon the dynamics of the group discussion (Kitzinger, 1995).

Acknowledging that familiarity and acquaintanceship can also inhibit full participation (Millward, 2000), all participants were reallocated to different groups during the afternoon session to ensure a mixing of delegates occurred and no two table members previously knew each other.

The tabletop discussions were all conducted within groups of 5-7 participants.

2.4.5 Morning tabletop discussions

The morning discussion groups focused on a designated area of child health as detailed in Section 2.2. Each table was provided with feedback sheets and asked to discuss and record responses to the following questions:

- What are the actual contributions of nurses, midwives and health visitors in this area of care? Maximum of 10 responses
- What are the potential contributions of nurses, midwives and health visitors in this area of care? Maximum of 10 responses
- What are the 'enablers' of the contribution of nurses, midwives and health visitors in this area of care? Maximum of 5 responses
- What are the 'inhibitors' of the contribution of nurses, midwives and health visitors in this area of care? Maximum of 5 responses
- Please provide examples of cross-boundary working in this area of practice. Maximum of 10 responses

2.4.6 Afternoon tabletop discussions

The afternoon session focused on three over-arching topics relating to child health addressing promoting health, clinical care and service organisation. Three tabletop discussion groups considered each of these topic areas (with service users undertaking a one-to-one interview) and groups were asked to discuss and record their responses to the following five questions.

- What are the actual contributions of nurses, midwives and health visitors in this area of care? Maximum of 10 responses
- What are the potential contributions of nurses, midwives and health visitors in this area of care? Maximum of 10 responses

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- What are the 'enablers' of the contribution of nurses, midwives and health visitors in this area of care? Maximum of 5 responses
- What are the 'inhibitors' of the contribution of nurses, midwives and health visitors in this area of care? Maximum of 5 responses
- Please provide examples of cross-boundary working in this area of practice. Maximum of 10 responses

2.4.7 Facilitation of the tabletop discussions

Facilitation of the tabletop discussions comprised clarification of the tasks set, answering of participant queries and reminder of time. The project team, however, did not participate in the tabletop discussions, rather they adopted a supportive peripatetic role across all groups. Tabletop discussion feedback sheets were collected at the end of each session.

2.4.8 Consensus building

At the end of the morning and afternoon sessions conference feedback was conducted in an attempt at consensus building across the conference group as a whole. Each group was asked to identify a key theme from their discussion regarding the actual and potential contributions of N,MW&HVs, enablers and inhibitors of these contributions as well as an example of cross boundary working to present to the conference as a whole. Where a theme had already been nominated, another theme was then proposed.

2.4.9 Outcome

Four groups of data were generated at each conference. Individual tabletop groups (one in the morning and one in the afternoon) provided a record of their discussions and full conference feedback was recorded on flipcharts for subsequent analysis. The full conference feedback provided the opportunity not only to generate a consensus, but also to clarify emergent themes similar to 'member checks' during qualitative data analysis.

The conference data were subject to thematic content analysis following the same stages as the literature synthesis. The analysed data were utilised within the detailed topic reviews and within the scoping synthesis. The output from the conferences is presented discretely (except for the enablers and inhibitors which were integrated with the output of the literature) within the targeted reviews and then any differences to the findings from the literature observed.

2.5 Synthesis

The overall synthesis integrated the output and synthesis from the targeted reviews (including the conference data) to provide a conceptual overview of the contribution of N,MW&HVs to child health. This synthesis was driven by the study objectives.

The primary objective of the synthesis was to conceptualise the contribution. This objective involved examining the collective output of the targeted reviews in relation to the original conceptual model. Thus, the identified themes attributed to the core dimensions of the contribution (i.e. assessment, health promotion, clinical and service organisation) from each review were integrated into unitary models detailing the contribution in each dimension. As there was a large volume of thematic groups within each review these themes were further organised to provide overarching classification of the collected interventions and to determine the underlying mechanism for these interventions. Within this process consideration was also given to the level at which initiatives operated (individual, family, community etc.) and the outcome areas associated with the contribution, bringing these factors into the conceptual models.

In undertaking this work the interactive nature of the categories also became clearer. For example, in the minor ailments review a thematic category was parent support with a particular item being direct parent in self-care at home. One of the items contributing to this category was related to NHS Direct where the nurse was establishing the most appropriate care action. There are clearly a number of underlying operators here: the level of care (the parent); the action (self-care advice); and the underlying purpose of the interaction (determination of clinical action). In the overall synthesis these elements were attributed as follows: the underlying purpose was viewed as 'gateway or directional care'; the specific intervention was 'self-care advice'; the level was 'parent (indirect)'; and the outcomes were minor illness (cure) and family related (parental coping). This critical examination of the collective output from the reviews generated new theoretical insights into the nature of the contribution. The product of this theorising was the development of the conceptual models presented in the next chapter (this work was undertaken iteratively between two researchers (AW & AF) who agreed the final classifications)

In conceptualising the health promoting contribution reference was made to Tannahill's model of health promotion identifying the interventions in relation to the overlapping domains of education, protection and prevention (Downie *et al*, 1989). In terms of the health care organisation contribution it was possible to distinguish discrete areas (such as clinical management) and areas which were more diffuse (such as ensuring a child centred approach).

Subsidiary objectives were to: examine the contribution in relation to emerging structures and roles; identify enabling and inhibiting factors; and consider the user perspective. The synthesis for these objectives involved identifying the major trends and themes from across the reviews to

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establish the overall parameters of these issues in relation to the contribution of N,MW&HVs to child health. The user views were identified in relation to both their general perceptions of the contribution of health services and those specific to the contribution of N,MW&HVs.

3 Output part 1 – targeted reviews

Following an account of the methodology (Sections 3.1 and 3.1.1) and overview of the review findings (Section 3.1.2), the output from each of the reviews is presented in six sections, based on the review's objectives:

- conceptualising of the contribution
- structures, policies and roles
- enablers and inhibitors
- user perspectives and participation
- suggestions for future inquiry
- limitations of the scoping exercise

3.1 Overview of targeted reviews

Ten targeted reviews were completed in the fields of: asthma; cancer; disadvantaged families with preschool children; minor ailments; school health; sick neonates; teenage pregnancy; complex needs; child protection & looked after children; and troubled school children. The reviews incorporated material from the literature and the participative conferences (see Section 2.4 for details of participants).

3.1.1 Literature retrieval

The content, volume and quality of the items (journal papers) identified in the reviews varied, reflecting the differences in the level and foci of the contribution within each of the targeted areas. Table 3 (see next page) summarises the number of items identified, reviewed and included in each review.

In total, 13,172 abstracts and titles were examined and 393 items were included in the reviews. The majority of the items were UK specific, although non-UK items were included where the reported practices were transferable. Non-UK items were categorised as demonstrating 'potential' rather than 'actual' practices. Additional items were retrieved from secondary references, hand-searching of specific journals and from the policy reviews. If a large volume (>200 items) of potentially appropriate items were identified by the search a random sample were selected to make the review process manageable.

Table 3 Item retrieval and inclusion by review

Review	Items identified	Items reviewed (random sample)	Items included (country of origin)					
			Total	United Kingdom	North America	Europe	Australasia	Other
Asthma	651	254(50)	48	24	17	2	4	1
Cancer	1,855	280(50)	50	15	26	0	3	6
Disadvantaged families	761	46	27	24	2	0	1	0
Minor ailments	870	55	25	17	3	2	3	0
School health	1,445	139	58	42	11	1	4	0
Sick neonates	1,023	62	40	13	21	0	2	4
Teenage pregnancy	2,788	186	30	18	9	0	1	2
Complex needs	871	231(50)	43	22	20	0	1	0
Child protection & looked after	2,100	136	34	24	10	0	0	0
Troubled school children	808	136	38	26	11	1	0	0
Total	13,172	910	393	225	130	6	19	13

The majority of the items included in the reviews were descriptive in nature (n=243, 62%) and non-research (n= 239, 60%) based (see Tables 4 & 5 on pages 32 & 33). Nearly a quarter of the items reported evaluation studies. A smaller number of reviews, developmental (describing a service innovation) and user items were identified. The user items were identified opportunistically to provide some account of the user's perspective in addition to that provided by the stakeholder conferences. While the high proportion of descriptive studies was consistent across all the reviews, there were variations in relation to the proportion of evaluation studies, which were particularly low in the child protection and cancer searches.

Table 4 Item type by review (% within review)

<i>Review</i>	<i>Descriptive</i>	<i>Evaluative</i>	<i>Developmental</i>	<i>Reviews</i>	<i>User</i>
Asthma	23(48)	21(44)	0(0)	4(8)	0(0)
Cancer	32(64)	3(6)	5(10)	5(10)	5(10)
Disadvantaged families	18(67)	6(22)	0(0)	3(11)	0(0)
Minor ailments	15(60)	5(22)	2(6)	3(12)	0(0)
School health	39(67)	14(24)	1(2)	3(5)	1(2)
Sick neonates	21(53)	15(37)	1(3)	3(7)	0(0)
Teenage pregnancy	21(70)	5(17)	0(0)	4(13)	0(0)
Complex needs	31(72)	11(26)	0(0)	1(2)	0(0)
Child protection & looked after	19(56)	2(6)	3(8)	9(27)	1(3)
Troubled school children	24(64)	7(18)	0(0)	7(18)	0(0)
Total	243(62)	89(23)	12(3)	42(10)	7(2)

The empirical items were mainly evaluation studies (n= 89, 58%), the majority of which were quasi-experimental. There were variations between searches, with the cancer search containing more qualitative studies and the asthma search a higher preponderance of RCTs. While items were not subject to a full critical appraisal, very few items were of high methodological quality, excepting a few well-conducted qualitative studies, RCTs and meta-analyses. These data suggest that overall, the empirical-base for the contribution of N,MW&HVs to child health is weak in many areas. Full details of all the included items are presented in the specific reviews (see Appendix 2 containing reviews).

Table 5 Research by review (% within review)

Review	Research items	Qualitative	Evaluation			Survey	Other
			RC T	Quasi- experiment	other		
Asthma	26(55)	0	10	10	1	4	0
Cancer	16(33)	8	0	3	0	2	3
Disadvantaged families	9(33)	2	3	1	2	1	0
Minor ailments	7(28)	0	3	1	1	2	0
School health	22(38)	7	1	9	4	1	0
Sick neonates	28(57)	0	5	10	0	4	9
Teenage pregnancy	11(37)	3	1	1	3	2	1
Complex needs	19(40)	6	0	7	4	2	0
Child protection & looked after	6(18)	2	0	2	0	1	1
Troubled school children	11(29)	3	2	5	0	1	0
Total	155(39)	31	25	49	15	20	14

3.1.2 Overview of reviews

The literature and stakeholder conference data utilised within each review generated a large volume of material detailing the roles, practices and therapies that underpin the contribution of N,MW&HVs to child health. Those roles, practices and therapies were categorised and thematically labelled within the four contribution domains (assessment; health promotion; clinical care; and health care organisation) defined within the review's objectives.

A brief summary of each review is presented below, together with a short illustrative case study. The case studies have been included to provide a more in-depth perspective on the nature of the contribution in these areas with a particular focus on cross-boundary working. The case studies also indicate the extent to which the effect of these examples has been demonstrated.

3.2 Asthma

The asthma review identified the contribution of N,MW&HVs in relation to the prevention, identification and management of the disease, although the emphasis was on supporting young people and their parents in living with asthma and targeting therapy to minimise complications. Supporting teachers and minimising the effect of the disease on schooling were also important aspects of contribution.

3.2.1 Contribution dimensions

Assessment practices carried out for children with asthma aimed to identify asthma-related needs (for example, severity and control of symptoms, improving inhaler technique, and identifying educational needs). Most assessment-based consultations included a combination of assessment systems (e.g. monitoring the efficacy of medication and carrying out educational needs assessments) and were focused directly on the child or young person themselves. Where a young child was involved the assessment involved at least one parent as well as the child. The majority of assessments targeted asthma as a chronic illness, with few addressing health-related behaviour or environmental conditions.

Direct interventions (focused on the child/young person themselves) identified comprised: disease-based education (e.g. correct use of medication); clinical care (e.g. administration of medication); care planning (development of individualised asthma management care plan); discharge planning; monitoring (e.g. of symptoms and effectiveness of treatment); support (e.g. building of therapeutic relationships, particularly with adolescents); health technology (e.g. use of inhalers and peak flow meters); prescription of medications; onward referral, and diagnosis (identified for US practice only).

Indirect interventions (focused on carers including parents, health professionals and teachers) identified comprised: parental education (e.g. asthma triggers; correct use of inhalers and peak flow meters); parental support (e.g. provision of information and advice to reduce parental anxiety); inter-professional education (e.g. training teachers in asthma management); inter-professional liaison (e.g. between school nurses, teachers and GPs in providing whole school asthma policies), and co-ordination of care (e.g. to enhance inter-professional communication prior to discharge from hospital).

3.2.2 Stakeholder perspectives

The stakeholders identified similar contributions as those identified in the literature. The suggestions for potential contributions included increased political participation and advocacy to bring about policy changes relating to smoking. Stakeholders also proposed that N & HVs could make a substantial contribution to coordinating care and improving continuity.

Case study 1

Children with Asthma

Case Study. The Bronchial Boogie

The programme was set up by Oldham PCT to educate children through various means, including playing woodwind instruments to help the children manage their asthma better. Further teaching through quizzes and games increased children's understanding of good inhaler techniques, understanding triggers and how the lungs are affected and importance of regular medication.

N, MW & HV Role

Assessment: respiratory assessment using diaries (asthma symptoms, peak flows, medication use, disturbed sleep);

Health promotion: group teaching of breathing exercises; teaching musical skills to improve self-esteem; asthma education (asthma triggers, lungs & asthma, use of inhalers before sports); asthma awareness sessions for parents; one-to-one advice.

Clinical care: safe medication education including inhaler use; advice to child and parent re. self-care;

Health care organisation: Inter-agency working between PCT and LA (schools & music service); inter-professional working with education staff.

Following the group music lesson, the school nurses provided games to increase knowledge in self-management of asthma with the specialist asthma nurse giving further advice on respiratory health through quizzes. Parents and children were encouraged to keep diaries of sleeping patterns and medication usage.

Cross-boundary working

The project was financed by Oldham's Children's Fund and run in conjunction with school nurses, specialist asthma nurses, a health care assistant, parents and music teachers from a local music centre. Local head teachers and schools supported the project.

Effectiveness

Improvement was found in all areas of the child's life including:

Reduction in school absence due to asthma; 35% down to 5%

Increase in no activity symptoms; 23% up from 83%

Reduced numbers reporting no sleepless nights; 47% down to 90%

Reduction in no asthma symptoms during day; 40% down to 90%

Reduction in need for inhalers to relieve symptoms; 83% down to 33%

Daniel L 2004) Tackling childhood asthma.
Primary Health Care, 14(4): 14-16

3.2.3 Structures, policies and roles

Asthma care is provided in a range of primary and secondary care settings. Guidelines for service delivery include structured care including the promotion of self-management skills and recording morbidity, inhaler technique and treatment regime. Some evidence exists to suggest the benefit of nurse-led clinics including school-based clinics, outpatient clinics and practice nurse clinics based in GP surgeries.

The term 'asthma nurse' is widespread and has been used to describe different levels of practice including registered nurses, clinical nurse

specialists and advanced nurse practitioners. Nurse-led care, including nurse-run clinics, can involve nurse practitioners, clinical nurse specialists or advanced nurse practitioners.

Cross-boundary working in service provision for children with asthma occurs most commonly at the health/education interface (for example, school nurses liaising with teachers) and discharge from hospital to primary care services.

3.2.4 Evidence of outcome

Outcome areas included: clinical outcomes (e.g. successful disease management, reduced hospitalisations, improved knowledge); health outcomes (e.g. reduced risk of developing asthma; improved general health); disability (e.g. increased participation in physical education at school); mental health (improved psychological well-being); environmental (e.g. reduced environmental risks); educational (e.g. improved school attendance) and service development (e.g. reduced costs). Unfortunately, no strong evidence was identified to support any of these outcomes.

3.2.5 Links to health needs

The literature review identified that nurses and health visitors provide care that aims to meet most of the health needs of children with asthma as identified from policy themes in the fields of health promotion, health assessment and direct and indirect interventions. Unfortunately there is little evidence as to how effective the care provided is in meeting those health needs. There was no evidence of UK nursing or health visiting input aimed at reducing health inequalities or diagnosis of asthma.

3.2.6 User perspectives

Few examples were found that described the user perspective. The reluctance of adolescents to engage in health care is apparent from the literature, suggesting this group may hold negative views of health care services. School-based care appears to be more acceptable to this age group.

3.3 Cancer

The cancer review identified the contribution of N,MW&HVs in relation to the identification of care needs, disease-based interventions and management of the treatment effects, indirect care to parents and significant others including peers and teachers, and care coordination. Psychosocial support of the child/young person and their family was an important aspect of the contribution.

3.3.1 Contribution dimensions

The aims of cancer-related assessment fall into two broad categories: to promote and support healthy choices, and to identify care needs.

The majority of the published literature that included assessment focused on the latter (e.g. identification of symptoms caused by therapies, information needs, support needs of the family). As with care of children with asthma, assessment often included multiple systems including screening and monitoring, care needs assessment and information needs assessment, with most assessments being focused on the child or young person. Most assessments identified were targeted at the care and management of cancer and its treatments (both short-term and long-term effects).

Most nursing interventions identified were disease-based interventions. Direct interventions identified comprised: support (e.g. psychosocial support through development of a trusting relationship; effective, appropriate communication; providing continuity of carer); clinical care (e.g. administration of chemotherapy; alleviating side-effects of chemotherapy; pain relief); disease-based education (e.g. information giving, being open and honest, teaching oral hygiene); monitoring (e.g. therapeutic effects of treatment, immediate side-effects of treatment, follow-up of long-term effects of treatment); health technology (e.g. technologies associated with administering therapies); referral (e.g. multi-agency referral as part of case-management); diagnosis (e.g. early detection of cancer at long-term follow-up clinics), and rehabilitation (e.g. psychosocial adjustment).

Indirect interventions included: parental education (e.g. information about disease and its treatment); parental support (e.g. emotional support; practical support such as respite care provision); education of child's peers (e.g. classroom sessions by nurses); inter-professional liaison (e.g. working as a member of a multidisciplinary team, liaison nurse at hospital/primary care interface); intra-professional education (e.g. development of competencies); inter-professional education (e.g. education of teachers); co-ordination of care (e.g. case-management).

Case study 2

Children with Cancer

Case Study. Long-term follow-up care of children with cancer

A nurse-led long-term follow-up service at Great Ormond Street Hospital has been developed. All children 5 years post-completion of treatment attend an annual review clinic in GOSH and are reviewed by both the doctor and the nurse. The doctor reviews recent investigations and confirms health status.

N, MW&HV Role

Assessment: psycho-social and cognitive assessment; monitor well-being.

Health promotion: One-to-one education; promote healthy behaviours; promote self-esteem; advise teachers.

Clinical care: psychosocial support; advise re. health issues and treatment sequelae; referral.

Health care organisation: cross-boundary & multi-agency working.

Cross-boundary working

The nurse is able to initiate direct referrals to specialists and primary care professionals including educational psychologists and social workers.

Effectiveness

Long-term service effectiveness is yet to be evaluated. However, there is a need for greater clarity regarding the roles of the nurse consultant, nurse specialist and nurse practitioner. The service users' wants and needs also call for additional exploration.

Gibson F and Soanes L (2001) Long term follow-up following childhood cancer: maximising the contribution from nursing. *European Journal of Cancer*. 37: 1859-1868

3.3.2 Stakeholder perspectives

The stakeholders identified similar contributions as those identified in the literature emphasizing clinical care and psychosocial support of the child/young person and significant others. The nursing contribution to care continuity was also identified. The suggestions for potential contributions included engaging other groups in the care and long-term support of children/young people with cancer such as youth workers and teachers. Stakeholders also proposed that N & HVs could contribute to the rehabilitation and long-term support of 'survivors'.

3.3.3 Structures, policies and roles

Care of children with cancer is provided through 17 treatment centres in England, some of which offer adolescent care in addition to the eight Teenage Cancer Trust Centres. In addition, there are shared care centres based within paediatric secondary care services, which are affiliated to the United Kingdom Cancer Care Study Group-accredited treatment centres. In addition to specialist clinical care, psychosocial care is of tremendous importance for families of children with cancer and access to social work support is an essential adjunct to nursing and medical care. The development of the nursing role in providing nurse-led, long-term follow-up care is evident from a review of the literature.

Nursing roles within the field of cancer care include nurse practitioner, specialist nurse and paediatric oncology nurse, although roles were rarely defined within UK nursing literature.

Examples of cross-boundary working included nurse provision of educational sessions in schools for classmates of children with cancer; support at home provided by the paediatric oncology outreach nurse acting as a link between hospital and community-based services; and education of other professional groups such as teachers.

3.3.4 Evidence of outcome

Outcomes of nursing and health visiting intervention were identified for the following areas: clinical outcomes (e.g. treatment of disease, relief from pain, alleviation of unwanted side-effects); mental health (e.g. improved psychological well-being, improved coping, anxiety/stress reduction); social outcomes (e.g. increased social support, prevention of social withdrawal); educational (e.g. improved school attendance); and service development (e.g. improved nursing care). Again there was no strong evidence to determine the impact of specific interventions in relation to outcome.

3.3.5 Links to health needs

The reviewed literature contained descriptions of a range of nursing activities undertaken to meet the health needs of children with cancer as identified from policy. No strong evidence exists for the effectiveness of these interventions, however. No evidence of nursing input was found regarding safe medication practice and promotion of concordance with oral therapy.

3.3.6 User perspectives

When young children were asked directly what they wanted in a 'really nice' hospital they most frequently drew their mother. The second most frequently drawn person was a smiling nurse. The role of the nurse as comforter is a vital component of the nursing care of sick children. The importance of the nurse recognising children's needs without having to be asked, being available as someone to talk to, and someone who would provide honest information was also evident in the children's drawings. This was particularly linked to undergoing painful procedures such as those involving needles.

Findings from studies involving adolescents suggest that this group prefer adolescent-designated units and place a high value on staff competency and expertise.

3.4 Disadvantaged families

The principle area of contribution of N,MW&HVs identified in the disadvantaged families review was in relation to parental support through the determination of health needs and identifying resources to meet those needs. There is also the suggestion that these actions have important additional benefits at the community level by supporting social cohesion, although no empirical evidence to substantiate this suggestion was found in the review. It was interesting to note that most of the reported activity focused on child and maternal health, with very little material relating to fathers or male household members.

It is important to note that this was the last review to be completed and because of the time pressure in completing the review it was not possible to conduct a thorough examination of the policy and health needs associated with this review. However, key policy trends were identified in relation to a number of the interventions found in the literature. Furthermore, there was a bias in the material towards health visiting and again the time limitations precluded follow-up searching to determine the contribution of other disciplines.

3.4.1 Contribution dimensions

Assessment practices carried out by N,MW&HVs were: fitness for immunisation; health needs assessment (formal and informal); the identification of behavioural issues; health needs assessment (formal and informal) at the individual, family and community levels; maternal assessment including mental (e.g. post-natal depression) and physical (ante-natal and post-natal) state; and developmental surveillance. The assessments focused mainly on the child and the mother, although there was also evidence of assessment at the family and community levels. No specific assessments of paternal health were identified. The output of the assessment was primarily the determination of needs. Needs were defined both objectively (i.e. post-natal depression scores) and subjectively (i.e. parent driven). It was noted that health visitors use these items to prioritise families as low, medium or high level of need/risk. The assessment is being used to determine the level of support provided. No empirical evidence was found to demonstrate how needs at the individual level were used in practice to determine needs at the community level.

Health promoting interventions were the most commonly identified interventions in this review. These interventions included health education (e.g. parental advice on issues such as weaning and safety), health protection (e.g. child protection and accident reduction), and preventive activities (e.g. immunisation). There was some material that suggests that health visiting practice is changing, and while activities such as parental advice on nutrition and safety, and maintaining the immunisation and screening programmes remain core to this area of contribution, support was also being targeted specifically towards disadvantaged families (e.g. the Sure Start programme). There was also material to suggest that the

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contribution involves community development work, promoting social networks and cohesion. The limited number of clinical interventions identified were orientated toward issues to do with growth and development (e.g. referral to speech therapy) and the management of psychological morbidity (depression and behavioural problems).

Case Study 3

Preschool children in disadvantaged families

Case Study. Sure Start – a collaborative approach

A Sure Start project was set up in Ore Valley, Hastings, seeking to work with parents and children to promote the physical and social development of preschool children. Using a partnership approach a range of high quality outreach support, health and play services for families was provided.

N, MW & HV Role

Assessment: ante-natal; child social and emotional development; parenting skills; risk assessment.

Health promotion: intensive family support; breast feeding; group cooking course; young parent group; smoking cessation; parentcraft; funding of child safety equipment; free playgroup places; referral to Playlink & Book Start; working with LA re. creation of safe play areas; traffic-reduction; access to Early Years Service for pre-school children with special needs; reduced rates for Relate counselling; after-school clubs; food cooperative to supply fruit & vegetables.

Clinical care: Counselling; referral; play therapy.

Health care organisation: user participation; inter-agency & inter-professional working; multi-professional team-working (health visitors, nursery nurse, midwives, speech & language therapist; occupational therapist, voluntary organisation workers [NCH], volunteers).

In addition to full-time health visitors, family support health visitors with advanced counselling skills provided weekly visits to families in crisis with a three-month follow-up. Midwives also provided antenatal care, including parent-craft and smoking cessation clinics.

Cross-boundary working

Occupational therapists and speech and language therapists support children with special needs or delayed speech. Workers from the NCH Action for Children service provide parenting advice in drop-in sessions. Referrals made to available local LA and voluntary organisation resources.

Effectiveness

Success was dependent on collaboration between residents, practitioners and service providers and continued consultation with service users. The project hopes to become a Trust with professionals and residents working together.

Webster A (2001) Client involvement is a better way to health.
Nursing Times 97(40): 36-37

In terms of health care organisation, the main contribution is developing services to support marginalized and disadvantaged families access health services. This work involves tailoring services to the cultural needs of different populations. Other areas of contribution included developing community networks, and connecting families to other organisations and services (voluntary and statutory).

3.4.2 Stakeholder perspectives

The stakeholders identified similar contributions as those identified in the literature identifying parenting, home safety, child protection, parental support and child health measures such as immunisations. In addition they emphasised the universal nature of the health visiting service and the

contribution in addressing health inequalities. In terms of potential contribution the emphasis was on more preventive and less crisis work.

3.4.3 Structures, policies and roles

Traditionally, much of the work in this area was undertaken by health visitors and midwives delivering a universal family visiting service. This work is supplemented through the provision of health support groups and networks such as post-natal support groups and community outreach work. New developments such as Sure Start adopt a more targeted approach, identifying communities with particular problems and high levels of disadvantage. These initiatives aim to promote greater social inclusion by enabling young parents to access education and work, and by providing a greater stimulation for infants and children from deprived families. The aims of the Sure Start Programme are to enhance social and emotional development, improve health, improve learning, and strengthen families and communities.

This area of practice is also associated with a high level entrepreneurial activity with novel practices being developed usually to address specific health issues (e.g. setting up a Pakistani women's cookery group to show them how to prepare culturally acceptable and nutritious food). However, the extent to which such practices are being initiated across the UK is unclear. There is a concern that some services, particularly traditional health visiting roles, are becoming increasingly medicalised, taking on work previously done by GPs and community medical officers.

Cross-boundary working was evident at the intra- and inter-professionals levels. This working was particularly evident in the Sure Start programme with health visitors, midwives and community support staff working in integrated teams. Cross-boundary working was also evident at the inter-agency level with collaboration with social services and police being central to child protection practices. No material relating to the integration of health education was found except in relation to the Sure Start programme where there were connections to nursery services and children's centres.

3.4.4 Evidence of outcome

Outcome areas included: reduced maternal child abuse, immunisation uptake, positive parenting skills, behavioural management, infant nutrition, maternal health outcomes, and accident prevention. However, some of the evaluations that have been undertaken in areas such as home visiting and accident prevention have shown mixed benefits. Indeed evidence from the HTA systematic review of domiciliary health visiting (Elkan *et al*, 2000) concluded that it was unlikely that home visiting in isolation would bring about major improvement in health and social outcomes. Another systematic review identified that home visiting significantly reduced childhood accidents, but it was not possible to show that home visiting reduced child abuse due to the methodological weakness of the studies. One RCT included in the review showed a reduction in abuse with home visiting,

but the effect was only in relation to maternal rather paternal or partner abuse (Roberts *et al*, 1996).

3.4.5 User perspectives

Overall, very few user accounts were identified. However, Knott and Latter (1999) reported the views of 'unsupported mothers' in relation to health visitors with some participants regarding the health visitor as judgemental, stigmatising and more focused on the baby rather the parent.

3.5 Minor ailments

The minor ailments review identified the contribution of N,MW&HVs in relation to the prevention, identification, treatment and symptom alleviation of minor illness in pre-school children.

3.5.1 Contribution dimensions

Assessment practices undertaken by N,MW&HVs were: identifying new disorders, prioritising problem severity (triage), identifying underlying environmental risk factors, and determining parental management (self-care) skills.

The systems utilised were: general clinical/physical examination, the use of standardised systems (e.g. severity algorithms such as those used by NHS Direct), and holistic assessments (incorporating bio-psycho-social assessment).

The target of the assessment was not only to determine the nature of the problem (diagnosis and/or severity) but also to assess the psychological effect of the problem, parental knowledge (self-care) and any underlying risk factors. The output from these assessments was rarely explicit, but included the identification of: appropriate diagnosis, a prevention or management plan, and the appropriate action model (self-care v medical care).

Both health promoting and clinical interventions were identified. The health promoting interventions were targeted towards educating parents in illness prevention (e.g. hygiene advice), self-care (e.g. managing fever), and the prevention of cross-infection. Primary prevention of problems included encouraging positive health behaviours (parental smoking cessation), and hygiene and nutritional practices (including breast feeding). Clinical interventions included: the initiation and management of health technology (e.g. prescribing or advising on use of over-the-counter medicines); interventions to minimise the effect of illness and prevent its re-occurrence; the identification of self-care strategies; and symptom management. Indirect care focussing on parental support was a key element of the clinical care contribution, including the management of parental anxiety.

The health care organisation contribution included: service development (e.g. developing services to meet identified gaps); maintaining health

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technology systems (e.g. managing the delivery of clinical results to GPs); care efficacy (prevent unnecessary use of specialist or medical services); care management systems (follow up of patients); relational care (support care continuity); application of the evidence-base to practice (implementing clinical guidelines); improve service access (e.g. staff open access out of hours services like NHS Direct); health care environment (e.g. prevent cross-infection); and promotion of user involvement (develop systems to support parental self-care).

3.5.2 Stakeholder perspectives

The stakeholders identified similar contributions as those identified in the literature emphasizing diagnosis, health promotion through empowering parents to self manage minor ill health, nurse prescribing and telephone consultation. The nursing contribution to the development of new services such as walk-in centres and Minor Injury Centres was also identified. The suggestions for potential contributions included further development of nurse-led services and outreach to excluded groups. Stakeholders also proposed that HVs could develop their diagnostic and treatment skills.

Case study 4

Minor Ailments in Preschool Children

Case Study. Hospital at Home

A hospital at home service (HAH) was set up by Wirral Health Authority to enable at home management of ill pre-school children presenting with diarrhoea, pyrexia, or breathing difficulties traditionally treated with a hospital admission.

N, MW & HV Role

Assessment: health status.

Health promotion: one-to-one parent education; parent empowerment.

Clinical care: monitor child's condition; education for self-care; discharge; referral.

Health care organisation: 24hr seven day a week nursing service provided up to 1-4 home visits daily. Team comprising nurses and paediatricians.

Cross-boundary working

Multi-professional team working across primary-secondary care.

Effectiveness

Readmission rates were lower in the children cared for at home compared to those receiving standard hospital care. Difference attributed to increased parental coping skills gained through the HAH scheme.

Sartain S, Maxwell M, Todd P, Jones K, Bagust A, Haycox A, Bundred P (2002) Randomised controlled trial comparing an acute paediatric hospital at home scheme with conventional hospital care. *Arch Dis Child* 87:371-375

3.5.3 Structures, policies and roles

A key structural change in this area of practice is the development of a more central role for N,MW&HVs in either the diagnosis or risk assessment of minor illness in children and young people. These structures are linked both to the development of specialist roles (advanced practice roles) and services (NHS Direct and Walk-in Centres). N,MW&HVs are contributing practices that reflect current policy developments in ensuring: prompt diagnosis and treatment; developing the parental role; increasing access to medicines through prescribing; and improving service access. However, it was not clear how they were increasing user involvement in decision making and ensuring age appropriate care.

A broad range of different roles were identified including health visitors, midwives and a range of specialist nurses (mainly eczema). Only one nurse practitioner role was observed in general practice dealing with minor illness, but this may be related to the under-five target population, with many services not providing nurse-led care to very young children. One observation made in relation to NHS Direct services was that nurses with a specific children's qualification may be better in managing calls.

Cross-boundary working was evident in two areas: firstly, evidence that N,MW&HVs are taking on work traditionally within the medical domain; and secondly in the relationship between generic practitioners (e.g. health visitors) and specialist practitioners (e.g. eczema nurses) that provides an example of intra-professional cross-working.

3.5.4 Evidence of outcome

Outcome areas related to: the management of the minor illness (e.g. prevention, cure and the minimisation of complications); user outcomes (e.g. improved satisfaction and choice); health care utility (e.g. prevention of hospital admissions; reduced use of doctor time); health technology outcomes (e.g. appropriate prescribing, such as a reduction in antibiotic use); and parental outcomes (e.g. improved self-care). In this review stronger evidence was found demonstrating that N,MW&HVs may contribute to: reductions in the complications associated with some minor illnesses; increased convenience and satisfaction with care; improved continuity; and improved parental self-care capacity.

3.5.5 Links to health needs

It is not possible to directly map the N,MW&HV contribution onto the identified health needs for this review as they were very general. There was, however, empirical evidence to show that the N,MW&HV contribution may help reduce use of A&E and GPs by providing parents with the support and guidance necessary to enable more effective self-management. There was some information to suggest that N,MW&HVs contributed to the prevention and minimisation of minor ailments in young children, although the evidence for such claims were generally weak.

3.5.6 User perspectives

Limited material relating the user view was identified. One item suggested that parents did not find the help offered by professionals including N,MW&HVs useful preferring advice from family and friends. It was also observed that health professionals were quite dismissive of problems despite the fact that they were anxiety provoking for parents. The review also found material to suggest that users were generally satisfied with telephone advice services such as NHS Direct.

3.6 School health.

The school health review identified the contribution of N,MW&HVs to the health of children and young people of school age. The review identified practices targeting young people directly and indirectly, through parents and teachers.

3.6.1 Contribution dimensions

Assessment practices aimed to identify or confirm health needs and to identify care needs within established disorders. There was evidence of multiple assessments systems (interviews, profiles, diagnostic and screening) targeting health behaviours, health issues (physical, mental and social), chronic disorders and the environment. Assessments focused on the individual, parents, families, teachers, the school and the wider community.

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There was little explicit identification of the output of these assessments and their contribution to child health.

Health promoting interventions were the most commonly identified interventions (largely related to the school nursing role). These interventions included health education, health protection and preventive activities. Specific interventions to promote the mental and social well being of young people were also observed. Indirect interventions targeted parents (e.g. education on managing minor illness), the wider community (e.g. development of social networks) and teachers (e.g. health advice for teachers). Clinical interventions were targeted at managing established disorders (mental and physical), meeting nursing needs (disability), and in managing minor illness (providing frontline advice and treatment). Indirect interventions aimed to support parents and teachers in dealing with minor and chronic disorders. Helping parents to manage minor illness was seen as a way of improving school attendance.

The contribution to health care organisation involved: the development of health promoting systems (e.g. school health programmes); the maintenance of health monitoring systems (e.g. screening children and families although some have contended that this a social policing role); care management systems (e.g. ensuring children with chronic disorders are reviewed regularly); relational care (e.g. being available to provide confidential advice and pastoral support within the school); contribute to service accessibility (e.g. providing care in schools so young people do not miss out on health care); workforce support and development (e.g. providing inter- and intra- professional education); ensuring a healthy environment; and promoting user involvement.

3.6.2 Stakeholder perspectives

The stakeholders identified similar contributions as those identified in the literature emphasizing assessment of children to identify health needs, health promotion including immunisation and well-being support, clinical care related to chronic disease management, behaviour problems and sexual health and support of the healthy school programme. The suggestions for potential contributions included a greater role in public health and obesity prevention. Stakeholders also proposed that nurse-led services could be developed outside schools to improve access to health support.

Case study 5

Promoting School Health

Case Study. Reshaping school health nursing services

School nurses in Walsall, West Midlands created a team to pool their skills and knowledge and implement a corporate caseload. This resulted in a more equitable service to all 30 schools covered by the service.

Nursing Role

Assessment: selective school entry health assessment; assessment of referred children including those causing concern; risk assessment; height & weight measurement of every child.

Health promotion: one-to-one advice within health interviews; 3 sessions within the personal and social education programme of school curriculum for 4-5 year olds (My body including dental care & personal hygiene; Being careful including accident prevention, sun safety & drug guidance; healthy eating); parent road-shows at key events during reception year (health in young children; accident prevention; purpose of school health service); monitor immunisation programme

Clinical care: referral with parental consent; participate in immunisation programme.

Health care organisation: service reorganisation; maximisation of team skills; team working; inter-professional and inter-agency working; strong relationships with CAMHS for advice and referral.

Cross-boundary working

Referrals accepted directly from teachers, parents or other health services. Meetings with consultant paediatricians and school doctors to plan care of children requiring medical and nursing services.

Effectiveness

Pilot project helped other school nurses see the benefit of the team approach for nurses, schools, children and their families. Difficulties arose over changing practices due to 'ownership' issues. Administrative support and nursery nurses part of team to maximise resources. Consideration of school nurse welfare improved recruitment and retention of staff through peer support and better job satisfaction. New service was better able to manage fluctuating staffing levels.

Sutton S, Gill J and Millard L (2004) Reshaping a school health service.
Nursing Standard 16(18):40: 33-35

3.6.3 Structures, policies and roles

Within school health care services there is a focus on both positive health and the management of chronic disorders within schools. The material suggested that N,MW&HVs are undertaking work that reflects current policy trends that emphasise health needs assessment, targeting health behaviours and school health programmes. There is currently a degree of contention about the usefulness of the universal health assessment of children with targeted assessment based on risk factors being advocated. The health promoting school is an emerging philosophy for school health provision but as yet there is little evidence to suggest that it makes a difference to the health of this population.

The school nurse was the main role identified within the review. However, there seems to be a great deal of diversity in the nature and focus of school nursing roles, together with an inequitable distribution of the school nursing resources. Other key roles identified included: specialist nurses (e.g. epilepsy and diabetes); mental health nurses; and learning difficulties nurses.

Cross-boundary working was evident principally at the health-education interface, although there was also evidence to show that N,MW&HVs provide an important link between the school and social services (child protection). Intra-professional working between generic roles (e.g. school nurses) and specialist nurses (e.g. asthma nurses) and mental health services (CAMHS) was identified. Inter-agency health promotion involving health promotion specialists, teachers and other organisations such as the police and youth workers was another area of cross-boundary working.

3.6.4 Evidence of outcome

Outcome areas encompassed: minor clinical outcomes (e.g. infestations) and major clinical outcomes (e.g. compliance with treatment); health outcomes (health knowledge and behaviour); developmental (the identification of abnormalities); environmental (e.g. reduced hazards); mental health (e.g. improved classroom behaviour); social health (e.g. positive parenting skills); child protection; and educational (e.g. improved academic support). However, no strong evidence was identified to substantiate these outcomes.

3.6.5 Links to health needs

The review identified that N,MW&HVs were attending to many of the identified health needs of the school age population, however, the evidence-base for these claims was weak. There was no evidence of activity in relation to mortality outcomes (e.g. suicide) except for accidents, although these may be implied in relation to other practices such as the provision of psychosocial support.

3.6.6 User perspectives

Only a small amount of material from the user perspective was identified. The presence of a dedicated school nurse to a particular school was found to be associated with a greater recognition and regard for the role by school children. Overall the school nurse is regarded as a health advisor and as someone who deals with minor illness problems, although young people's preferred sources of health support were family, friends and their GP.

3.7 Sick neonates.

The sick neonate review identified the contribution of N,MW&HVs in relation to the identification of care needs and clinical care interventions and indirect care to parents to promote health. The distinction between advanced neonatal nurse practitioner (ANNP) and clinical nurse specialist (CNS) roles was raised.

3.7.1 Contribution dimensions

The aims of nursing assessment in the care of sick neonates fall into 2 broad categories: prevention of ill health/health promotion and the

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identification of care needs. Specific aims included: identification of clinical problems; detection of signs of family stress and inability to cope; identification of source(s) of nosocomial infections; recognition of pain and the successful introduction of oral feeding. In line with these aims, the most frequently identified assessment systems were monitoring, and care needs assessment and screening/health surveillance. The majority of assessments were clinical in nature, targeted at the care needs of the neonate. There was also recognition of parental and family needs assessment, although this was mentioned less frequently in the reviewed literature.

The majority of the direct clinical interventions identified were associated with monitoring the condition of the sick neonate (e.g. temperature; respiratory and cardiovascular parameters; blood chemistry; signs of infection); administering supportive therapies (e.g. oxygen, pharyngo-tracheal suctioning, electrolyte and fluid balance) and administering treatment/medication (e.g. antibiotics; analgesia). Much of the care described was provided in neonatal intensive care units (NICU) involving a high degree of technological support.

Indirect interventions comprised mostly parental education and support in order to involve parents in the care of their baby as far as possible. Preventive interventions were also identified, such as psychosocial support for women with high risk pregnancy, smoking cessation programmes for pregnant women, and infection control within NICU.

The contribution to health care organisation and service delivery included: the expansion of existing roles (e.g. NICU nurse-led unit); developing and implementing guidelines and protocols (e.g. for infection control in NICU); standard setting and quality assurance through audit (infection control in NICU; safe medication practice in NICU); workforce development (e.g. educational programmes for infection control in NICU, safe medication practice in NICU); and implementation of innovative multi-professional projects (e.g. Drug Liaison Group to provide cross-boundary, accessible care for pregnant drug-using women).

3.7.2 Stakeholder perspectives

In contrast to findings from the literature review, stakeholders identified very few clinical interventions, their focus being much more towards health promotion and contribution to health care organisation. Additional areas of care identified included pre-conceptual care, bereavement support and child protection. Potential areas for enhanced contribution included improved identification of high-risk pregnant women; and greater involvement of midwives in antenatal health promotion and support for women suffering domestic violence or involved in substance abuse. The development of multi-disciplinary care pathways, with nurses as the lead professional, was also called for.

Case study 6

Sick Neonates

Case Study. Pregnant women and substance abuse

An audit of a specialist midwifery role was undertaken in Nottingham following the introduction of a new service for pregnant drug using women. A new collaborative approach was instigated to provide a more comprehensive service targeting 'hard to reach' service users to reduce the incidence of sick neonates.

Midwife Role

Assessment: social, financial, mental and physical assessment; child protection risk.

Health promotion: one-to-one advice re. drug and sexual health; advocacy; parental attachment promotion; child safeguarding.

Clinical care: psychosocial support; support during methadone treatment programme; referral.

Health care organisation: relational continuity; inter-agency & inter-professional working; protocol/guideline writing; educating other health care professionals and agencies.

Cross-boundary working

A steering group consisting of the maternity services, social services, homeless team and drug services meets 3-monthly to continually update the evidence base and facilitate a two-way communication between consultants, paediatricians and drug agencies. Education of others and protocol writing also contribute to cross-boundary working.

Effectiveness

The majority of babies born during the audit to opiate using mothers suffered minimal withdrawal and did not require further treatment. The education of mothers reduced foetal withdrawal and 25 of 33 babies were able to go home with their mothers. Overall, the service provision was enhanced.

Prentice S and Watts K (2004) Pregnant women and substance misuse: an audit.
British Journal of Midwifery 12(12): 767-770

3.7.3 Structures, policies and roles

The expansion of the role of the neonatal nurse practitioner to deliver nurse-led care has important workforce and financial implications. UK-based research has shown that this is a safe, effective and cost-effective alternative to medically-led care provision. There is concern, however, over the availability of adequate numbers of appropriately skilled nursing staff to provide this increasingly complex care. Both advanced neonatal nurse practitioner (ANNP) and clinical nurse specialist (CNS) roles exist in the UK. Whilst there appears to be no clear distinction between the two, it does seem that the focus of the ANNP is more on technical care of the neonate whilst the CNS model is seen as one where the focus remains on specialist nursing care, which is seen as more holistic and family-focused. There is some concern that the UK are producing NNPs at the expense of CNSs because development is being driven by the medical profession rather than by nurses, fuelled by the reduction in junior doctors working hours.

Cross-boundary working is most in evidence at the hospital/home interface, with discharge planning and support. Specialist midwifery support throughout the antenatal and postnatal periods, both at home and in hospital, for women with high-risk pregnancies, was also identified.

3.7.4 Evidence of outcome

A large number of outcomes were identified, the majority of those being clinical outcomes e.g. reduced infant mortality; reduced morbidity associated with prematurity; reduced incidence of low birth weight; fewer hospitalisations; earlier discharge from NICU. Other outcome areas included: general health (e.g. improved growth and development); mental health (e.g. improved mental well-being of family; improved parental knowledge); health promotion (e.g. increased longevity of breastfeeding); social outcomes (e.g. supported family) and service development (e.g. improved nursing care). Whilst most outcomes have little supporting evidence, there is some evidence from 2 large-scale international studies involving over 7500 low birth weight babies, that nurse:ventilated infant ratio and level of nursing expertise has an impact on infant mortality and morbidity in the direction expected.

3.7.5 Links to health needs

The literature review identified that nurses, midwives and health visitors provide care that aims to meet most of the health needs of sick neonates as identified from policy themes in the fields of health promotion, health assessment and direct and indirect interventions. Unfortunately, there is little evidence as to how effective the care provided is in meeting those specific health needs (although see above re infant mortality). There was no evidence found for the contribution to palliative care.

3.7.6 User perspectives

Unfortunately only one small study was reviewed which included the user perspective of using therapeutic touch on babies in NICU. Whilst parents welcomed the initiative, few were aware of its introduction or the training sessions being run for parents and carers. The paucity of user perspectives found in the literature, and this study underlining poor communication between staff and parents, demonstrates an urgent need for an improved understanding in this area.

3.8 Teenage pregnancy

The teenage pregnancy review identified the contribution of N,MW&HVs in relation to the identification of risk and care interventions to promote pregnancy prevention and good outcome of pregnancy. Outreach work was a key element of work in this field.

3.8.1 Contribution dimensions

Assessment practices carried out for pregnant teenagers aimed to ensure the health and welfare of the mother and her baby (e.g. through identification of risk factors predisposing to low birth weight; identification of postnatal depression; identification of victims of domestic violence and abuse). Assessment systems include: medical history-taking; physical

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examination; screening; monitoring (of pregnancy and infant health); community needs assessment; and evaluation of the home environment. The importance of sensitive interviewing and active listening is emphasised. The majority of reviewed assessments focused on the pregnant woman herself or on a local population of teenage mothers in order to identify their health, educational and support needs.

Direct interventions included pregnancy prevention, both in a one-to-one situation (e.g. outreach contraceptive services; postnatal counselling to prevent second pregnancy; school-based contraceptive services; provision of emergency contraception) and group teaching (e.g. sex education in schools and youth clubs; social skills workshops; "Baby Think It Over" infant simulator programme); pregnancy education (e.g. specific adolescent antenatal sessions; information and advice given as part of antenatal midwifery consultation); parenthood education (e.g. post-natal home visiting support programme; web-based information and support service); and support (e.g. psycho-social support through home visiting; sensitive interviewing to detect abuse/domestic violence; intra-partum support and encouragement).

Indirect interventions were less frequently identified. These included: parental education and support (i.e. for parents of pregnant teenagers); intra-professional education (e.g. training for nurses based in accident and emergency departments); inter-professional liaison (e.g. as part of a multi-professional team to ensure consistency of care) and care co-ordination (e.g. through role of teenage pregnancy co-ordinator).

The contribution of nurses, midwives and health visitors to health care organisation and service delivery involved: improving access to care (e.g. provision of care at home; outreach services; school-based care; approachable); providing user-friendly services (e.g. flexibility of time and place; confidentiality; non-judgmental staff); increased care provision by practice nurses; improved services for teenage fathers and adolescent specific services (e.g. antenatal sessions).

3.8.2 Stakeholder perspectives

Stakeholders identified most of the elements of contribution noted from the literature, plus a number of additional areas of input including dedicated health visitor; teenage pregnancy teaching in midwifery curriculum; evaluation of care and its outcomes and development of a social model of midwifery. Potential contributions identified included: involvement of midwives in school-based sex education; increased involvement of teenage fathers; multi-agency teenage pregnancy fora in all regions; greater input from health visitors; raising the profile of teenage pregnancy - involving media and influencing policy.

Case study 7

Teenage Pregnancy

Case Study. UPFRONT

The UPFRONT health action group was set up in a Young Offender Institution in Wetherby, North Yorkshire to look at the health needs of the local young people (13-17 year olds). It was named by the young people service, indicating this was how they wanted health professionals to be with them – Upfront.

N, MW & HV Role

Assessment: Survey of young people's views; basic screening eg blood pressure, colour vision.

Health promotion: group work re. risk taking behaviours (sexual health, smoking, drugs, alcohol); healthy lifestyle; pregnancy; topics chosen by young people; one-to-one advice; self-esteem; complementary therapies incl. aromatherapy & reflexology; empowerment.

Clinical care: referral.

Health care organisation: user involvement; inter-agency and inter-professional working to increase access to health information to an excluded group of vulnerable young people.

Cross-boundary working

The Health Action Group included school nurses, midwives, health visitors and district nurses as well as youth health education workers and sexual health workers. It was funded by a PCT in a Young Offender Institution and was supported by the education staff.

Effectiveness

15–60 young people aged 13 to 17 attend each session. Local needs were met, and it was felt that such a programme was effective in lowering teenage pregnancy rates. The informal atmosphere created at the drop-in sessions encouraged return attendance and participation.

Jones A (2003) Preconceptions – the challenge.

MIDIRS 13(2):258-261

3.8.3 Structures, policies and roles

Teenage pregnancy is seen as a public health issue, with an emphasis on pregnancy prevention. The role of the school nurse has been highlighted as central to providing education and services to adolescents in order to help reduce the incidence of teenage pregnancy and sexually transmitted infections (STIs). Development of services that provide access and are attractive to teenagers is essential, given that many pregnant teenagers come from, or are falling into, socially excluded groups such as substance misusers, school truants and victims of abuse. The role of teenage pregnancy co-ordinator has been established in order to ensure the development of appropriate, multi-agency services that meet locally identified needs. Cross-boundary working in this field may involve health professionals, social services, housing agencies and education services.

3.8.4 Evidence of outcome

The most commonly identified areas of outcomes were: health outcomes (e.g. reduction in teenage pregnancy rates, reduced incidence of child neglect, reduced incidence of non-accidental injury, improved diet, improved breastfeeding rates); knowledge and skills acquisition (e.g. improved knowledge of contraception, improved knowledge of the benefits of breastfeeding, increased awareness of responsibilities of parenthood);

clinical outcomes (e.g. reduction in incidence of low birth weight, reduction in infant mortality rate) and mental health outcomes (e.g. reduced incidence of postnatal depression). Whilst most outcomes were not supported by strong empirical evidence, there was some evidence (based on the systematic review of rigorous studies, including 15 RCTs) for the effectiveness of school-based sex education in reducing teenage pregnancy when linked with contraceptive services; and improved health and development of teenage mothers and their children following targeted programmes that promote access to antenatal care and provide social support.

3.8.5 Links to health needs

Care and services provided by nurses, midwives and health visitors were closely linked with the health needs of pregnant teenagers as identified by the policy review. The gap in service provision for teenage fathers was evident from the lack of literature covering this area. The valuable contribution made by school health services in reducing the incidence of teenage pregnancy, including sex education and contraceptive provision is supported by evidence. Targeted antenatal care provision and psychosocial support throughout the antenatal and postnatal periods has also been shown to provide health benefits for both teenage mothers and their babies.

3.8.6 User perspectives

Teenagers' views of maternity care and services have been well documented. Pregnant teenagers often report feeling lonely, isolated and lacking in confidence. If treated without respect or as juveniles, young people often find this very difficult to cope with and may withdraw from health care services. It is therefore important that health care professionals treat adolescent mothers with respect and encouragement. Praise and encouragement have been found to be highly valued, especially during labour and in relation to breastfeeding. Responses from teenagers suggest they enjoy practical, technology-based interventions such as the "Baby Think It Over" infant simulator programme and web-based postnatal support.

3.9 Complex needs.

The complex needs review identified the contribution of N,MW&HVs in relation to the assessment of care and psychosocial needs together with disability focused interventions and parent/carer support. Care planning and care coordination were also important contributions.

3.9.1 Contribution dimensions

Most assessments carried out for children with complex needs aim to identify care needs, both clinical (e.g. identification of post-operative

complications, effective symptom control) and psychosocial (e.g. identification of information and social support needs). Assessment that aims to promote healthy living and quality of life is also often an important component of comprehensive nursing assessment (e.g. identification of need for respite care). Care needs assessment is usually performed with the individual child or young person as its focus, although assessment of the whole family is also common.

Interventions may be solely disease/disability-based or include a health component. Direct interventions identified included: clinical care (e.g. recovery from surgery and post-operative care, assistance with activities of daily living (ADL); support (e.g. child advocacy, stress and anxiety reduction); disease/disability-based education (e.g. provision of information and advice); health technology (e.g. supportive therapy such as pharyngo-tracheal suctioning and oxygen administration); care planning; monitoring (e.g. acute monitoring in paediatric intensive care, long-term monitoring of treatment effects); health promotion (group health promotion or one to one); onward referral and diagnosis (e.g. infection screening of children awaiting transplant surgery).

Indirect interventions identified were also numerous. Psychosocial support was frequently cited and appeared in the literature as a central component of the nursing care of children with complex needs. Specific examples of supportive care included respite care; supply of equipment to help with ADL; counselling; bereavement support and assistance with networking. Other indirect interventions included: family education (e.g. in preparation for caring for a critically ill child at home); care planning (e.g. preparation for discharge from hospital); care co-ordination (e.g. community-based co-ordination of care and services provided by voluntary and state sector); intra-professional education (e.g. community-based paediatric nurses preparing school nurses for integration of a child with complex needs into school); inter-professional education (e.g. nurses providing training for school teachers); inter-professional liaison (e.g. as a key component of case-management); and onward referral.

3.9.2 Stakeholder perspectives

The stakeholders identified similar contributions as those identified in the literature. The suggestions for potential contributions emphasised health promotion in recognition of the heavy burden faced by families and carers. Stakeholders also proposed that N & HVs could make a substantial contribution to advancing service development.

3.9.3 Structures, policies and roles

Children with complex health care needs often require multi-professional support involving many contributors, both formal and informal, from a variety of sectors. Care may be provided in a range of settings including tertiary centres, primary care clinics and care at home. It is evident, therefore, that effective cross-boundary working is essential to the provision of high quality care that meets the needs of these children and their

The contribution of nurses, midwives and health visitors to child health

families. Intra-professional collaboration and care co-ordination, such as that demonstrated by the work of the Diana Children's Community Teams, has made an important contribution towards improving care and service provision in this field.

3.9.4 Evidence of outcome

Identified outcomes included: clinical outcomes (e.g. fewer hospitalisations, pain relief); mental health outcomes (e.g. improved mental well-being of family, enhanced confidence of parents in caring for child at home); social outcomes (e.g. support for family); and service development (e.g. improved access to services). Unfortunately there was no strong evidence to support the contribution of nurses and health visitors towards any of these outcome areas.

Case study 8

Children with Complex Needs

Case Study. Improving service co-ordination

Service co-ordinators for children with complex needs were appointed in Leicester and the counties of Leicestershire and Rutland. Parents were important partners in the process, attending family service planning meetings and holding the multi-agency family service plans and records.

N, MW & HV Role

Assessment: child's needs; family need & parental capacity.

Health promotion: one-to-one parental support; information giving; problem-solving support; advocacy.

Clinical care: parental involvement in decision-making; psycho-social support; care co-ordination; referral.

Health care organisation: Leadership to deliver a family-centred multi-agency service. Half the co-ordinators were health visitors; the remainder had a wide range of backgrounds including parents.

Cross-boundary working

Children and their families received services from more than one agency. Team members included GPs, health visitors, dieticians, physiotherapists, speech & language therapists, occupational therapists, specialist nurses, school nurses, community nurses, CAMHS, teachers, educational psychologists, educational welfare officers, child minders, respite home carers, social workers, foster carers, as well as representation from relevant voluntary sectors.

Effectiveness

Parents reported feeling equal partners in the care process. Multi-agency meetings resulted in a clear course of action. Those who undertook the co-ordinator role reported greater job satisfaction. A care co-ordination network subsequently developed to promote best practice.

Tait T, Beattie A, Dejnega S (2002) Service co-ordination: A successful model for the delivery of multi-professional service to children with complex needs. *NT Research* 7(1):19-32

3.9.5 Links to health needs

The literature review identified a range of activities undertaken by nurses and health visitors to meet the identified health needs of children with disability or chronic illness. Again, there is little evidence as to how effective the care provided is in meeting those health needs. There was no evidence of UK nursing or health visiting input aimed at ensuring safe medicine practice or supporting the development of evidence-based protocols.

3.9.6 User perspectives

The (UK) user perspective of services suggested that on the whole the majority of parents were pleased with care and service provision. A number of shortfalls were identified, however, the most notable of these being respite care provision, which was identified as being too little and too inflexible. Most parents expressed a wish to be involved in their child's care, both practically and in terms of decision-making. Unfortunately, parents often felt ill prepared for this role, particularly where children were discharged home after a period of hospitalisation.

3.10 Child protection & looked after children

This review incorporated the broad range of practices related to child protection, together with the more specialist area of health care for looked after children. The former included practices related to the prevention, detection and management of child abuse, with N,MW&HVs playing a significant role in maintaining the child protection system particularly through the universal contact of health visitors. The latter addressed the specific needs of children in care with health assessment being important as many children in care have complex needs and may lack parental support with health worries and advocacy in using health services.

3.10.1 Contribution dimensions

Assessment activities for child protection included: the identification of risk factors for abuse (both informally through family interview and formally using validated tools); the identification of abuse; and identifying parental needs. For looked after children the focus was on identifying health needs, developmental issues and socio-cultural needs. Systems included: clinical examination (forensic); parent interviews; holistic needs assessments; and specific systems such as the 'Framework for the Assessment of Children in Need and their Families'. Output details were limited but included: the detection of abuse; the identification of parental needs; and the health needs of young people in care.

Interventions included health promoting activities aimed at supporting healthy behaviours in looked after children and those aimed to prevent child abuse (such as positive parenting schemes). N,MW&HV initiatives to help looked after children access and use health services more effectively were also identified. Mental health promotion featured with N,MW&HVs using strategies such as group work to help looked after children develop self-esteem. All the clinical interventions were related to child protection and were categorised as protection management. Protection management involved: supporting families through child protection (CP) proceedings; implementing CP protocols; supporting other professionals in CP; implementing CP plans; and recording and sharing information.

The contribution to health care organisation involved: developing new services (e.g. the provision of open access services for looked after children); care management systems (e.g. the co-ordination of CP services and maintenance of CP systems); relational care (continuity of relationship with family); accessibility (the universality of the HV service); and workforce development (e.g. doctor substitution work, taking on role of community medical officer in assessing looked after children).

Case study 10

Looked after children and children in need

Case Study. Promoting the health of looked after children

A specialist looked after children's nurse undertakes the annual health assessments required for looked after children.

N, MW& HV Role

Assessment: emotional and social development; emotional health; physical health incl. dental; vision; hearing; immunisation status.

Health promotion: one-to one advice to promote healthy behaviours (exercise, diet, personal hygiene, sexual health, dental health, relationships; personal safety); advice re. risk behaviours eg. alcohol, tobacco & other substance use; immunisation uptake; advocacy; support to access other services

Clinical care: psycho-social telephone support for children, young people & carers; advice regarding self-care relating to on-going health problems (eg. asthma, diabetes); referral

Health care organisation: Inter-agency and inter-professional working and across health care organisations (primary care, hospital services and CAMHS).

Cross-boundary working

Close team working created networks with hospital services, CAMHS and improved links with primary care.

Effectiveness

Of 148 assessments only 2 referrals to medical services were needed. Children and young people perceived the nurse as more accessible and approachable than the doctor. Nurse-led service developments encouraged children to continue to access health services.

Hill C, Wright V, Sampeys C, Dunnett K, Daniel S, O'Dell L and Watkins J (2002)
The emerging role of the specialist nurse. *Adoption and Fostering* 26(4):35-43

3.10.3 Structures, policies and roles

There was no evidence of major structural change in this review, with the continued emphasis being on effective inter-agency working to prevent avoidable child deaths (e.g. Victoria Climbié). There was, however, evidence of role development in relation to doctor substitution work, with nurses undertaking health/medical assessment of looked after children. In the US a potential role was identified for nurses in relation to the forensic assessment of child abuse; it has been suggested that nurses may conduct such assessments more sensitively. An important specialist role identified in this review was that of the child protection advisor. These are specialist nurses (usually health visitors) who provide advice at the organisational and individual practitioner level on CP matters, but no materials offered a detailed evaluation of these roles was identified.

A great deal of evidence relating to cross-boundary working was identified in this review: inter-agency (police, education and social services); shared inter-professional therapeutic intervention (psychologists and health visitors); intra- and inter-professional advice (e.g. child protection advisors); N, MW& HVs working directly in child protection teams (this was an example from North America); sharing information; using a single assessment process; and health visitors working in prisons. However, there

is no clear evidence of how extensive or effective such working is across the UK.

3.10.4 Evidence of outcome

Very few items identified explicit or substantiated outcomes identifying the contribution of N,MW&HVs to either looked after children or in relation to child protection. In terms of child protection the focus was on the successful prevention and detection of abuse and risk reduction. For looked-after-children helping them to utilise and access health services was identified as an important outcome.

3.10.5 Links to health needs

There was no strong evidence to show that N,MW&HVs were contributing to the identified health needs of looked after children, although there was evidence that they were targeting high risk health behaviours (e.g. alcohol use) and in supporting young people in care to access health services. There was some evidence to support the claim that N,MW&HVs contribute to child protection, although it is not clear as to how effective current interventions are in preventing, detecting or managing CP.

3.10.6 User perspectives

In this review no explicit material detailing the views of users of N,MW&HV was identified in relation to either child protection or looked-after-children. However, user involvement was identified in one item with users being consulted about the development and evaluation of an open access drop-in clinic for young people.

3.11 Troubled school children.

While the focus of this review was troubled school children, much of the material utilised related to child and adolescent mental health services (CAMHS). While some material relating to the promotion of positive mental health was identified, the majority related to the clinical management of behavioural disorders.

3.11.1 Contribution dimensions

Assessment practices aimed to examine: mental state; behavioural problems and associated risks; psychiatric morbidity; family functioning; social adjustment; and the effects of therapy. A wide range of assessment systems were identified some of which were very specific and objective (e.g. using validated tools to measure depression) but most were multi-levelled, being holistic or therapeutically driven. The review also identified the use of managed observation over the 24hr period for in-patient assessment. The output from the assessments in identifying or confirming mental health problems was not explicit or supported by empirical evidence, although the

assessment process was identified as being important in developing a therapeutic relationship and in targeting therapy.

Case study 10

Troubled School Children

Case Study.

An innovative community based Tier 2 service was set up in Leeds to provide easy access with self-referrals to those concerned about emotional and behavioural problems in children. The key aim was to intervene early in the development of emotional and behavioural problems of children and young people (up to 16 years of age).

N, MW & HV Role

Assessment: mental health assessment

Health promotion: parent groups; child/young person one-to-one and groups re. bereavement, anxiety, anti-social behaviour, aggression management.

Clinical care: brief interventions (max of 8 sessions); individual & group work; referral.

Health care organisation: Inter-agency and inter-professional team-working. Outreach support offered to Tier 1 professional. Filter for Tier 3/4 CAMHS teams.

Cross-boundary working

A joint venture between mental health services, LA social services and the voluntary sector. The team included social workers, clinical psychologist as well as CAMHS nurses including those with school nursing and community psychiatric backgrounds. The initiative was embedded in local community services.

Effectiveness

Referrals to the Tier 2 service increased 4-fold indicating that the service was able to address previously unmet needs. As a result Tier 3 services were able to focus on complex and chronic cases.

Worrall-Davies A, Cottrell D, and Benson E (2004) Evaluation of an early intervention Tier 2 child and adolescent mental health service. *Health and Social Care in the Community* 12(2):119-125

The majority of interventions were of a clinical nature. The small number of health promoting interventions included education on the effects of drug abuse; ensuring that self-harmers were not able to access abusive items (e.g. knives); and that young people were supported in the development of strategies to help them assert personal control.

The most commonly identified clinical interventions were the application of specific therapies such as cognitive-behavioural-therapy and behavioural management programmes. Other clinical interventions included: the management of pharmaceutical therapy (appropriateness, effect); the management of physical needs in the context of the mental health problem (e.g. nutrition in eating disorders); and managing chronic disorders (e.g. supporting young people and their families to live with a long-term mental illness and ensure their safety). Indirect interventions were targeted at supporting other professionals (e.g. specialist mental health workers supporting primary care professionals) and parents (education, counselling and partnership models).

The contribution to the health care organisation involved: the development of evidence-based practice (e.g. implementing guidelines); quality assurance (monitoring care quality); developing services (e.g. introducing new roles); determining the care management approach (e.g. ensuring a

patient centred model); relational care (developing a therapeutic relationship; access (e.g. enabling the provision of domiciliary care); work-force development (e.g. establishing nurse-led services); and managing the care environment (ensuring that the environment is therapeutic).

3.10.3 Structures, policies and roles

The most significant change in this area of practice was the introduction of the **4 tier model for CAMHS** (see Figure 3, below). N,MW&HVs have central roles within the 4 tier model. Examination of the models of care operating at the interface between these tiers would be helpful because there is little evidence to show which models are more effective in particular contexts.

Figure 2 Nurses in different CAMHS tiers

Tier 1 Primary Level of Care	
Health visitors	Early identification of mental health problems
GPs/practice nurses	General advice
School nurses	Promotion of mental health
Tier 2 A Service Provided by Professional relating to Primary Care	
Community psychiatric nurses	Training & consultation for Tier 1 services
Nurse specialists working in MDTs	Outreach to identify children/families with severe/complex needs unwilling to use specialist services.
	Treatment assessment
Tier 3 A Specialist Service for More Severe, Complex & Persistent Disorders	
Community psychiatric nurses in MDT	Assessment and treatment
	Assessment for referral to Tier 4
	Contributions to services & training in Tiers 1 & 2
Tier 4 Tertiary Services (Day Units, Specialised Out-patient Teams & In-patient services)	
Community psychiatric nurses	Assessment & treatment
Psychiatric nurses	
All working in mental health teams	

3.10.4 Evidence of outcome

The most commonly identified outcomes were behaviour change, self-control and mental well-being, reflecting the focus of the clinical interventions. Other outcome areas included: clinical (e.g. reducing psychiatric symptoms); health (preventing eating disorders); environmental (ensuring child safety); mental health (e.g. improved self-control); social health (improving social functioning); family health (improved family behaviours such as parenting responses); and health care utility (e.g. more

appropriate referrals). While most of these outcomes were not empirically established, there was some evidence from RCTs to show that cognitive-behavioural-therapy (CBT) may lead to improvements in negative emotions (e.g. depression).

3.11.5 Links to health needs

N,MW&HV activity was clearly linked to most of the main disorder areas associated with troubled school children, with the exception of suicide and Tourette's and associated disorders, although there was limited evidence demonstrating the therapeutic effect of the interventions provided.

3.11.6 User perspectives

No material detailing user views or experiences was identified in this review making this an important area for future inquiry.

Section 4 Output part 2 – synthesis

4.1 Conceptualising the contribution

In this section the findings of the synthesis are reported. The synthesis integrates the thematic output from the individual targeted reviews to generate models to provide a conceptual framework to inform future inquiry. The synthesis is presented separately for each of the core dimensions of the contribution identified in the initial conceptualisation (Figure 1, see page 16).

- Assessment
- Health promoting interventions.
- Clinical interventions.
- Health care organisation.

It is emphasised, however, that interrelationship between these dimensions identified in the original conceptual model remains and their separation is purely to enable a more expansive examination of the different dimensions. Recommendations for future inquiry are made for each domain. These recommendations indicate the need for primary (empirical study) or secondary (further scoping or systematic literature reviewing) inquiry.

4.1.2 Assessment

The contribution of N,MW&HVs to the assessment of child health is summarised in Figure 3. This area is clearly very complex and multi-faceted. Nevertheless, it has been possible to determine a number of key elements in the assessment process which reveal the extent of the N,MW&HV contribution in this area.

Initiation

An important distinction is made between assessments that are triggered by the person themselves or another professional (responsive), and those which are initiated by the N,MW&HV (proactive). Proactive assessments are generally associated with the identification of health needs. There is, however, some debate about whether proactive health assessment should be universal as with current screening programmes or targeted at high-risk groups (Hall & Elliman, 2003). In school nursing, for example, much of the assessment work undertaken by school nurses is still directed towards developmental and health screening (Cotton *et al*, 2002). This assessment is generally performed within the context of the school health interview and as Hall (1989) observed there are no data on the effectiveness of these interviews in identifying new disorders. While Hall acknowledged that these interviews incorporate health education, questions remain as to whether such a strategy is cost-effective.

Aim

The aim of the identified assessment processes was related to four objectives: to identify (find or agree new health needs); to confirm (diagnose or categorise a particular problem or disorder); to allocate (determine level of care need, parental management capacity and need to see a doctor) and to evaluate (examine whether a particular therapy is working). These objectives were observed in relation to the more specific aims observed in the targeted reviews: at risk individual/population (to identify those at risk, for example, drug or alcohol abusing parents); health status or variance (to identify any deviations from the accepted norms, such as growth, development screening and clinical signs); health issues/ needs (to identify subjective or objective needs); disorder (to confirm presence of a problem, diagnosis); clinical need (to allocate appropriate levels of care or care pathway); disorder needs (to identify management needs within the context of an established disorder); care needs (to identify nursing needs related to the functions of daily life); therapy appropriateness and effect (to allocate and/or evaluate therapy); and environment (to identify factors in the environment either in specific care setting or the home or wider community).

System

A fundamental driver for the adoptive system of assessment is the underlying 'gaze'. The materials suggest that multiple gazes are utilised within N,MW&HV practice including: a health promoting gaze; holistic nursing gaze; and, with practices between doctors and nurses overlapping, increasingly a medical gaze.

The assessment systems can either be 'open' following an open naturalistic approach or 'closed' utilising pre-determined criteria. This distinction was particularly acute in the disadvantaged children's review. Cowley *et al* (2004), in examining the interaction between health visitors and families using highly structured needs assessment systems, found that the use of such systems emphasised predetermined epidemiological factors at the cost of identifying individual needs. The authors suggested that this was evidence for the medicalisation of the health visiting role and suggested that health organisations are encouraging a shift to high control standardised models of assessment. They argued that this approach aims to place patients' needs into pre-determined categories (high, medium or low) so that the organisation can control the allocation of resources. However, Cowley *et al* (2004) demonstrated that such approaches could be an obstacle to the development of an open therapeutic communication that is 'agenda free', thereby impeding user participation in determining their own needs. Conversely, parent satisfaction with the highly structured distance interview system offered by NHS Direct suggests that, in some circumstances, a more objective approach is useful. In the US some objective procedures for risk assessment in relation to child abuse have been validated and used to provide positive support to parents. Thus, understanding how to integrate subjective and objective assessment

The contribution of nurses, midwives and health visitors to child health

techniques in different areas of child health is an important area for future research.

Little material revealed the extent to which assessments were being integrated between organisations. Assessments were either uni-professional (carried out by one practitioner); intra-professional (e.g. joint assessment work between tiers 1 and 2 in CAMHS); or multi-professional (e.g. joint medical and nursing assessments). It was also noted in a number of the reviews that N,MW&HVs are increasingly undertaking assessments previously undertaken by doctors, mainly in relation to health checks, but also increasingly related to preliminary diagnosis.

Finally, it was not very clear within most of the assessment practices identified what the theoretical or empirical assumptions were in undertaking the assessment. This weakness may be in part due to the limitation of this very broad review, but if further inquiry were made it may be useful to establish the extent of the theoretical and empirical basis for child health assessment by N,MW&HVs and in relation to integrated assessments.

Focus

Most of the identified assessment practices focused on the assessment of the individual child/young person or their parent (rarely, if ever, father). While there were general descriptions of assessments at the school, community and population levels, there was less concrete detail as to how these were being undertaken.

Indeed, particular concerns were raised in the literature about whether school nurses and health visitors have the necessary skills for undertaking population level assessments, such as health needs analysis and profiling (DeBell, 2000; Crogan *et al*, 2004).

Target

Assessments targeted: health behaviours; general health (physical, psychological and social); current and long-term needs related to chronic illness and disability (e.g. following-up cancer survivors); and care allocation (e.g. triage).

Output

Assessment output was poorly determined across the targeted reviews. This is a deficit that should be addressed in future inquiry as it is important to determine which systems are efficient not only in determining needs but also in meeting the needs identified.

Recommendations for future inquiry

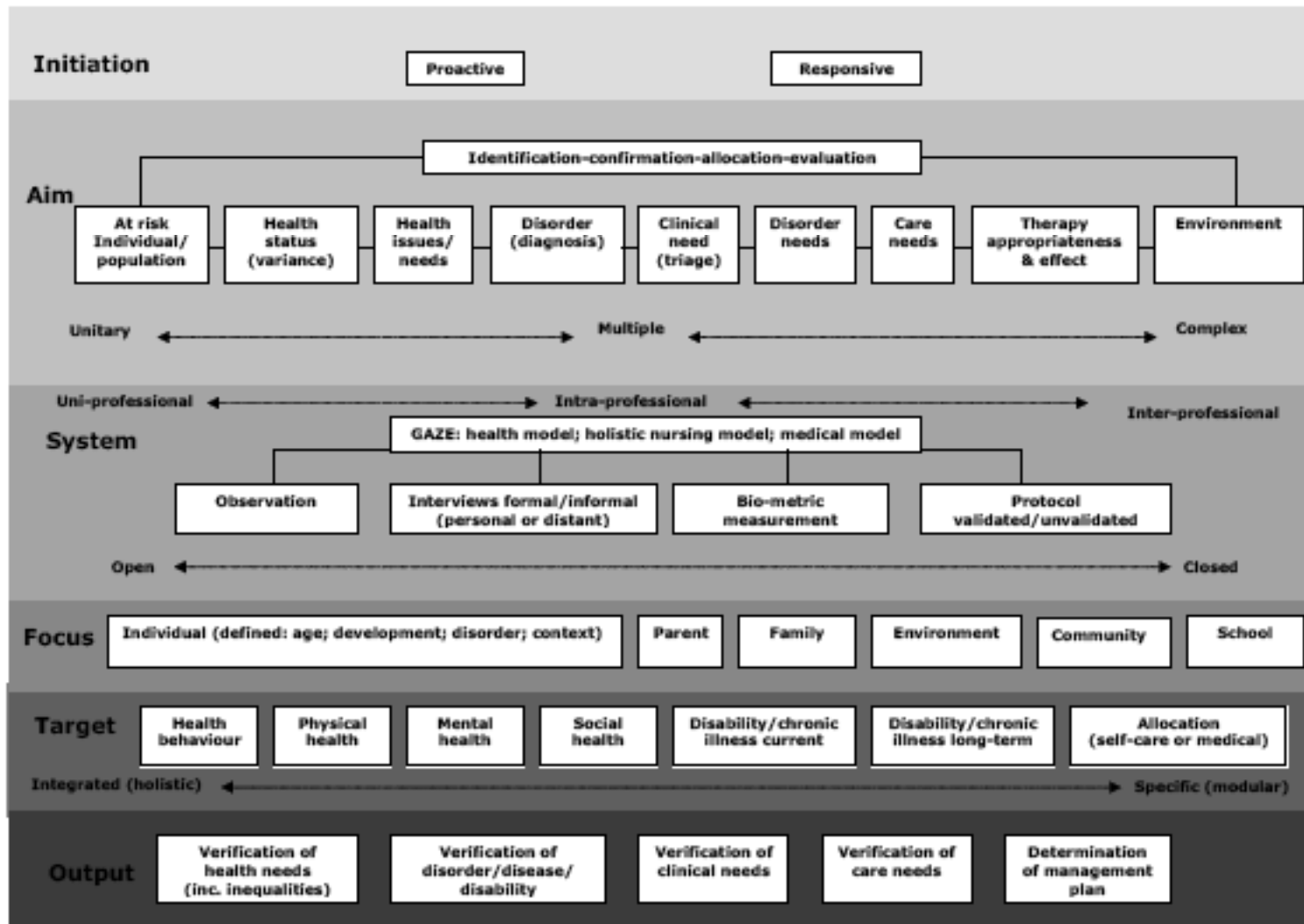
The output from the scoping exercise suggests the following areas for future exploration.

The contribution of nurses, midwives and health visitors to child health

- Description of the health assessment procedures undertaken by N,MW&HVs at the individual, parent, family, school, community and environmental levels, identifying their theoretical and empirical underpinnings (in the first instance this work should be undertaken at the secondary level).
- Identification of the specificity and sensitivity of the health assessments performed by N,MW&HVs and their relationship to clinical or health outcomes (both primary and secondary level work);
- establish the skills base of N,MW&HVs in child health assessment to inform future role development and educational programmes to improve health assessment skills (primary level work);
- examine the cost-effectiveness of different models of health assessment comparing targeted (both related to risk groups and specific health phenomena) and generic strategies. Specific health phenomena should include mental and social health assessment as well as focussing on the physical dimensions of health and development (primary and secondary level work).
- develop and evaluate the role of N,MW&HVs in assessing clinical needs and care allocation (primary level);
- to explore and evaluate the role of N,MW&HVs as primary diagnosticians for child health problems (primary level);

Given the complexity of the topic it is recommended that people use the conceptual framework to define and delineate particular facets of the assessment contribution in building their research hypothesis. For example: *initiation*- to evaluate the effect of responsive assessments aimed at treatment allocation for upper respiratory symptoms; *system*- distance protocol-based health assessments (e.g. NHS Direct algorithm); *focus*- to advise parents on URTI management; *target*- on whether they should self-care or seek medical help (i.e. allocation); *output*- appropriate care management (verification of care needs and appropriate management plan).

Figure 3 Contribution to health assessment



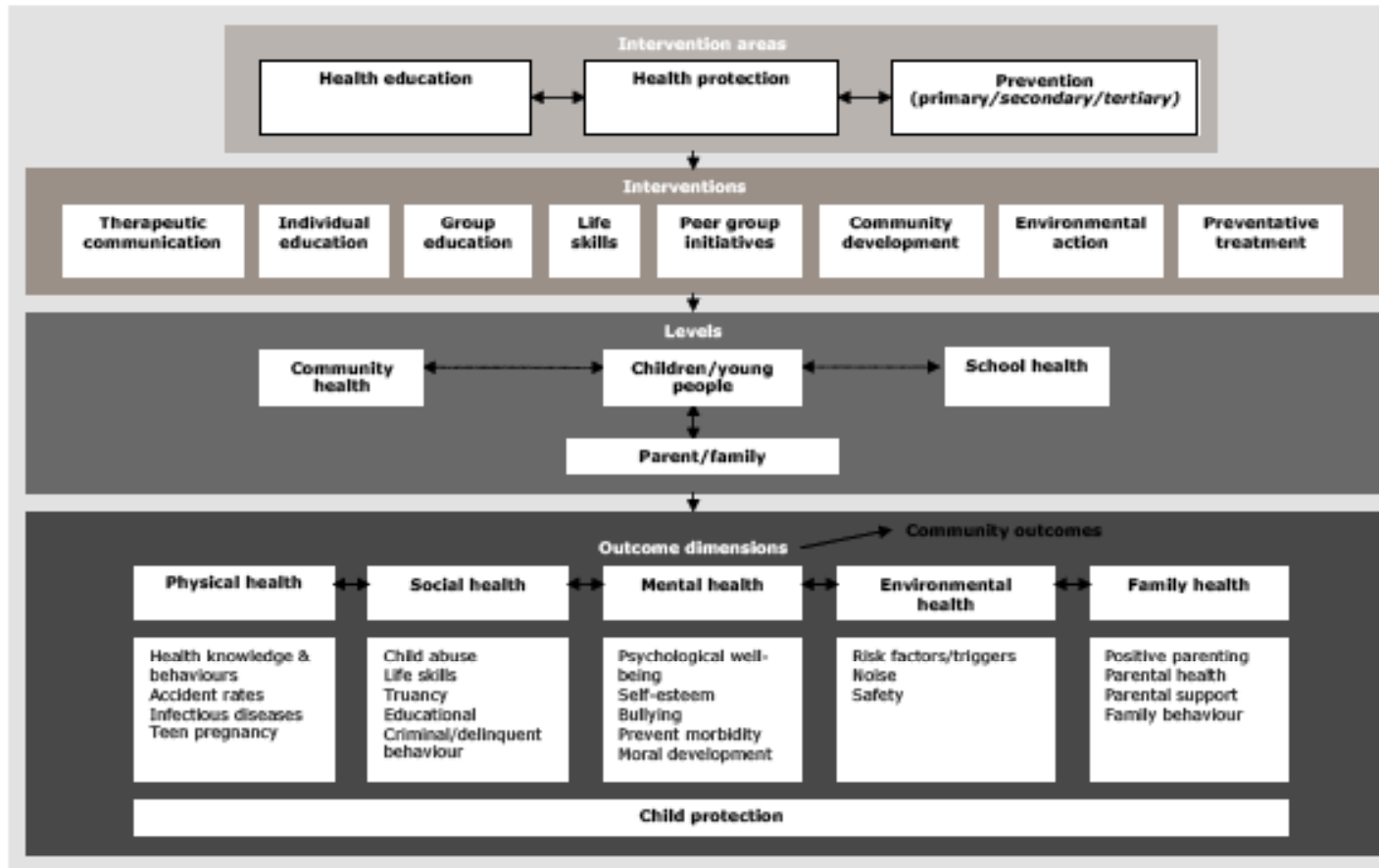
4.1.2 Health promotion

The contribution of N,MW&HVs to child health through health promoting interventions is summarised in Figure 4. The contribution was evident across the integrated domains of health promotion (education, protection and preventive). However, health education remains the dominant modus for health promotion in N,MW&HV. The dominance of health education methods is reflected in the interventions employed, which included: therapeutic communication (developing a supportive relationship); individual and group health education interventions (some of which followed explicit programmes while others were more informal; examining the relative effectiveness of standardised and non-standardised approaches should be a focus for future inquiry); peer group initiatives (facilitating young people to support each other in developing health promoting behaviours); community development work (working within communities to help them build health resources); and preventive treatment (such as the mass immunisation programme). A recurrent theme in the material is the development of innovative ways to help young people access health information using methods such as open access health clinics. While there is evidence that N,MW&HVs are working beyond the individual level there is little empirical data detailing the effect of either community development work or school health programmes on child and family health outcomes.

In terms of outcomes very little valid data were identified showing that N,MW&HVs have sustained effects on negative health behaviours or other health outcomes. Furthermore, there was little material reporting the effects of health promoting interventions on parents or the wider community. However, it should be noted that problems such as eating disorders, childhood obesity, smoking and alcohol abuse seem very resistant to most current interventions. Indeed evidence from recent systematic reviews has shown that interventions have very little effect on these problems. This suggests the need for a greater understanding of the driving factors underpinning these problems within the context of the N,MW&HV role. Such research should determine priority areas that N,MW&HVs should target so that there is greatest likelihood of impact. An additional problem is the lack of any long-term follow-up studies to establish whether the effects of interventions are sustained.

The contribution of nurses, midwives and health visitors to child health

Figure 4 Contribution to health promotion



Recommendations for future inquiry

The output from the scoping exercise suggests a number of areas for future exploration. Research should be undertaken to:

- describe the types of health promoting interventions utilised by N,MW&HVs at the individual, parent, family, school, community and environmental levels (individually or in combination), identifying their theoretical and empirical underpinnings (secondary level);
- develop and pilot health promoting interventions involving N,MW&HVs targeted at specific health issues (primary level);
- develop and pilot health promoting interventions involving N,MW&HVs targeted at community health (primary level);
- develop and pilot health promoting interventions involving N,MW&HVs targeted at school health (primary level);
- determine the effectiveness of different theoretically developed and piloted health promoting interventions in different contexts targeting explicit outcomes using RCTs and ideally long term follow-up (primary level);
- establish the skills base of N,MW&HVs in health promotion to inform future role development and educational programmes to improve health assessment skills (primary level work).

Given the complex nature of health promoting interventions, it is recommended that any research programme should follow the MRC complex evaluation framework to aid research design. This framework is reflected in the emphasis placed on theory and piloting in the above recommendations. It is also recommended that research hypotheses be conceptualised within the conceptual framework identifying the nature of the intervention, its intended level (child, parent community etc.) and the expected outcome.

4.1.2 Clinical care

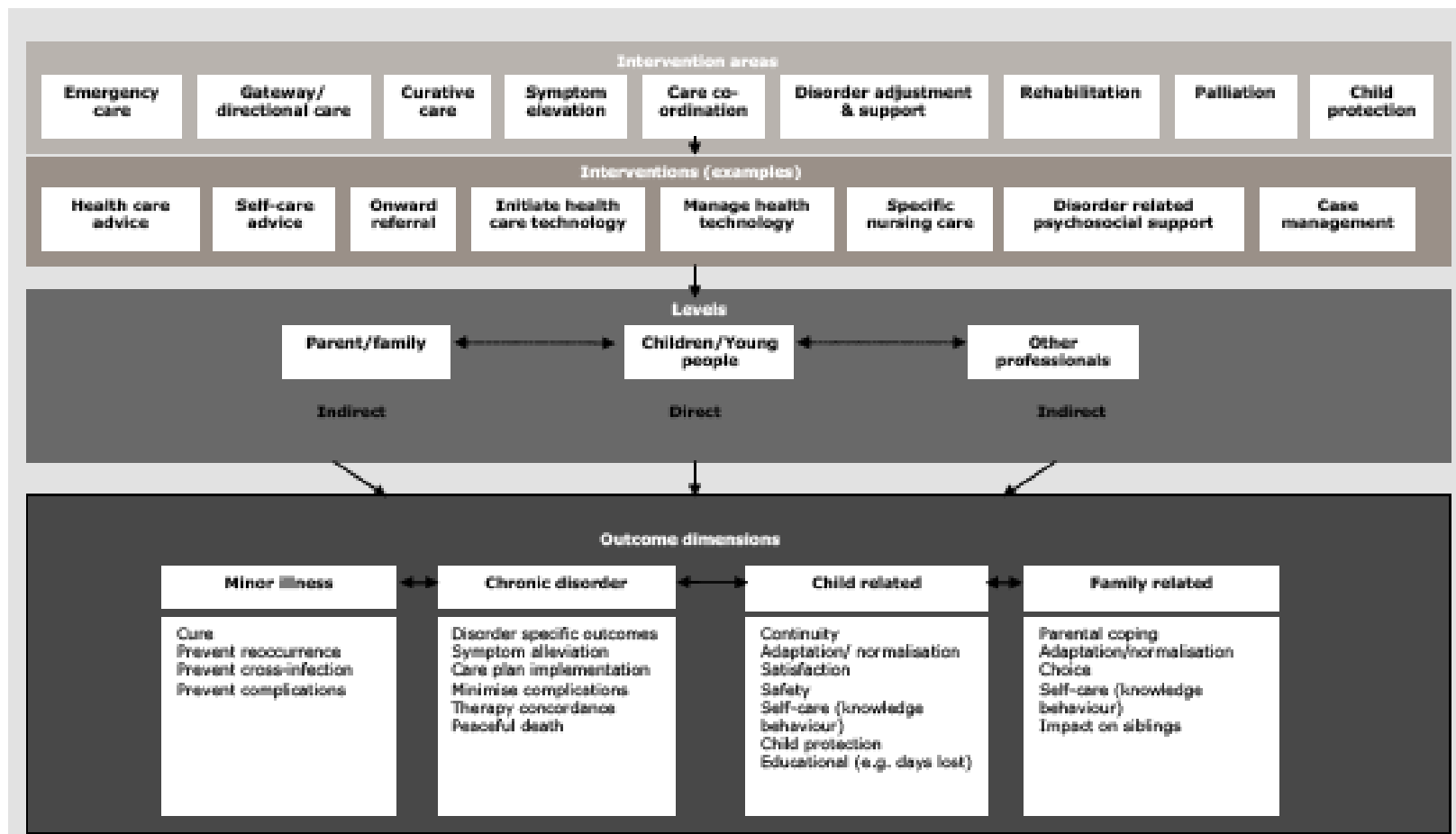
The contribution of N,MW&HVs to child health through clinical interventions is summarised in Figure 3.2.2. The contribution incorporates: emergency care (supporting life during acute crises); gateway/directional care (supporting access to appropriate services); curative (actions designed to resolve problem such as treating infestations); symptom alleviation, both in minor illness (e.g. fever) and chronic disorders (e.g. chronic pain, asthma); care co-ordination (managing the care system); disorder adjustment and support (attend to the psychosocial effects of illness on child/young person and their family); rehabilitation (strategies to enable child/young person to adapt to their illness achieving a degree of normalisation and role fulfilment); and palliation (supporting child and their family with life-limiting incurable disease). The clinical care provided by N,MW&HVs is broad and complex with evidence that clinical activities have expanded far beyond the traditional nursing roles of supporting daily living needs and alleviating the suffering of children. N,MW&HVs provide care directly to children and

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indirectly by supporting parents and others such as teachers in delivering care.

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Figure 5 Contribution to clinical care



In line with international trends (particularly North America), there was evidence to suggest that N,MW&HVs are taking more responsibility for initiating (prescribing) and managing (adjusting) health technologies raising questions about the extent of such activity in the UK and its effect on child health. The management of minor illnesses by N,MW&HVs is an area which needs further consideration both in relation to 'distant' health care provision such as the advice given by NHS Direct and provision in primary care, considering factors such as safety (equivalence to doctor care), acceptability consumer satisfaction and cost. While N,MW&HVs are taking on increasingly diverse and complex activities, basic areas such as comforting and nutritional management remain important. In these areas it may be useful to conduct research to establish whether basic nursing needs are being addressed and by whom. Finally, the review has shown that little is currently known about the effect of child protection practices (preventive or management) on safe-guarding children and young people and supporting families.

Recommendations for future inquiry

The output from the scoping exercise suggests a number of areas for future exploration, research should be undertaken to:

- explore the role of N,MW&HV in relation to the initiation and management of health technologies in specific treatment settings (primary and secondary levels);
- develop and pilot interventions to support N,MW&HV in managing minor illnesses examining both self-care initiatives and primary treatment (primary level);
- compare the management of minor illnesses by N,MW&HV with other professionals to establish cost-effectiveness, considering factors such as safety, user choice and satisfaction (primary level)
- identify and test transferable models or systems for care co-ordination in chronic diseases and disabilities (primary and secondary levels)
- determine whether basic nursing needs of children and young people are being appropriately met in different contexts (hospital and community) and for different disorder groups, identifying who is providing the care (primary level)
- identify, develop and test psychosocial interventions to support children and their families with chronic health problems (secondary and primary levels)
- identify, develop and test psychosocial interventions to support children and their families during acute illness episodes (secondary and primary levels)
- identify, develop and test symptom alleviating interventions for children with chronic health problems (secondary and primary levels)

- explore the child protection role of N,MW&HV, examining current practices (secondary level).

Again it is recommend that researchers use the conceptual framework (Figure 3.2.3) to model their research questions or hypotheses.

4.1.3 Health care organisation

N,MW&HVs contribute to child health through their role in maintaining and developing health care organisation. This contribution is summarised in Figure 6. The health care organisation contribution of N,MW&HV was expressed in five interrelated thematic areas: workforce development (supporting and maintaining the child health workforce, both within and between professionals and in co-ordinating the care of non-professionals); the management of care systems (managing patients through care systems to ensure they receive the right care, in the right place at the right time); cross-boundary working (developing systems to support inter-agency and professional collaboration); health promoting systems (delivering whole programmes of health promotion and having a major role in managing the national immunisation and developmental screening programmes); and service development (developing and evaluating services and supporting the quality assurance programme).

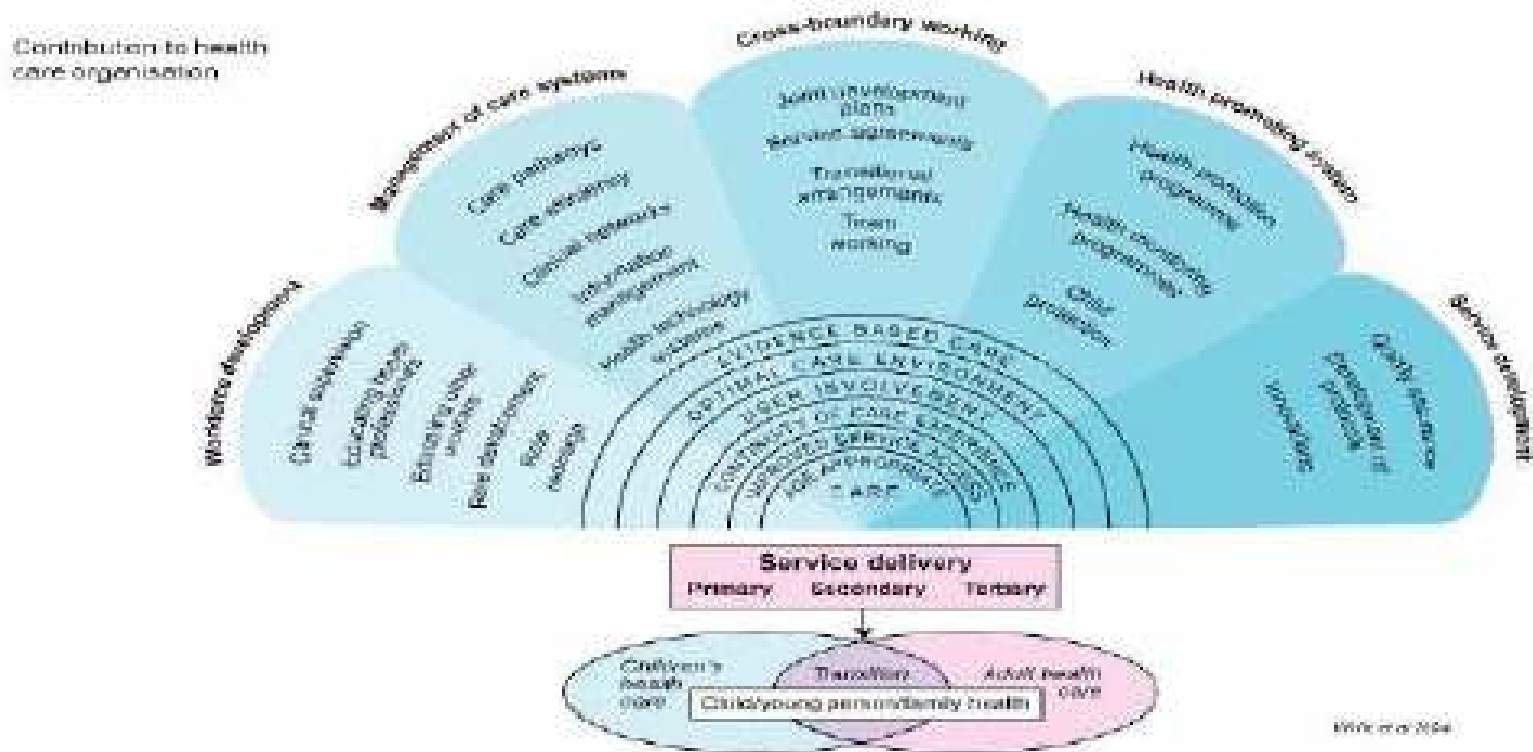
A number of additional strands of contribution, which transgressed these thematic areas, were identified within the scoping process. These included: the advancement and implementation of evidence based care (e.g. developing and/or implementing clinical guidelines); managing and maintaining an optimal care environment (this includes the management of environmental safety and promoting non-threatening therapeutic care environment); initiatives to promote user involvement; supporting continuity (relational, longitudinal and developmental); facilitating service access; and a duty to ensure that the care provided is age appropriate (this includes the issue of child consent/ascent).

The contribution to care organisation is multi-levelled from the strategic to the ward or community levels, and involves transitional care activities enabling/supporting young people and their families to access adult services.

The N,MW&HV contribution to health care organisation is very complex. Future research in this area should be grounded in organisational theory and should use whole systems approaches. Future research is needed to explore this dimension of contribution both at the organisational and unit levels. Research should be focused towards the identification of transferable factors that contribute to improved patient care and clinical outcome.

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Figure 6 The contribution to health care organisation



Recommendations for future inquiry

The output from the scoping exercise suggests a number of areas for future exploration. Research should be undertaken to:

- explore the contribution of N,MW&HV in relation to care management systems to determine their effect on patient journeys considering clinical, service, user-based (i.e. satisfaction) and cost outcomes (primary level)
- determine the cost effectiveness of current health promoting systems managed by N,MW&HV contrasting universal and targeted systems (secondary and primary levels)
- explore the contribution of N,MW&HV to the management of the care environment considering clinical, service (i.e. cross-infection) and user-based (i.e. anxiety), (primary level)
- identify examples/models of effective cross-boundary working at inter and intra agency and professional levels, this work should be focused on patient outcomes (secondary and primary)
- identify the contribution of N,MW&HV working at a managerial level in developing services (including the workforce), again this research needs to be grounded in organisational theory (primary levels).

4.2 Emerging policies, structures and roles

The contribution of N,MW&HVs to child health operates within a very dynamic system driven by health service policies and expressed in different service structures and roles. It is difficult to separate out these different elements as they operate closely together. They are also other factors determining the contribution beyond these basic elements (many of which are identified in the Section 4.3 Enablers and Inhibitors). However, the scoping has attempted to explore current policies, structures and roles in relation to the contribution. Given the highly contextual nature of these different factors, details of the specific policies, structures and roles are presented in each of the targeted reviews. There are, however, some general issues regarding the relationship between these factors and the N,MW&HV contribution to child health.

Policy

A mini policy review was undertaken for each of the targeted searches. The policy themes identified were then mapped against the identified areas of N,MW&HV contribution. Overall this mapping suggested that N,MW&HVs were involved in activities that were enabling the policy agenda, although this can only be assumed in the most general terms as there was very little empirical evidence to show how N,MW&HVs were delivering an explicit policy initiative. However, there were areas where activity was clearer (although not supported by empirical evidence) including: identification of

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health needs; school health initiatives; supporting and empowering parents; expanding advice and treatment for minor illnesses; improving accessibility and choice; Sure Start; and supporting child protection policies.

Emerging structures and roles

The material incorporated in this review suggests that there is growing trend toward role specialisation in many areas of N,MW&HV practice. This trend divides between: N,MW&HVs taking on roles traditionally undertaken by doctors (role substitution) providing primary diagnosis and treatment; and N,MW&HVs developing specialist expertise in managing complex health care technologies and care systems. More generic specialist roles such as midwives, health visitors and school nurses are also evolving (or some fear dividing) into sub-specialities.

Some health visitors and midwives are working to provide care targeted toward specific groups within programmes like Sure Start, which is a departure from the universality of provision. School nurses are expected to: support children with health needs in school; deliver existing screening and immunisation programmes; and develop new approaches to school health promotion. It may be important to consider the effect of these developments on the workforce regarding whether this increased specialisation leads to more focused care or to fragmentation and dilution of resources.

A further consideration is that if N,MW&HVs are undertaking more specialist and advanced roles, who is undertaking the more traditional nursing roles? There is evidence within the targeted reviews (e.g. cancer and complex needs) to suggest that more of this care is being delivered by parents under the supervision of nurses. The relationship between N,MW&HVs and doctors is not only changing in terms of doctor substitution, but there was also evidence within reviews showing that N,MW&HVs educate and advise doctors in relation to treatment choices.

Finally, there seems to be an emerging network of intra-professional activity, with specialist and generic practitioners working across specialist, hospital and primary care settings offering education, advice and shared care. Further exploration of 'nurse to nurse' consultation and joint working may provide insight into the N,MW&HV contribution to child health. These emerging elements have been plotted onto a paradigm map dividing between roles and structures (see Figure xx). An additional feature of this Figure is the need to recognise the extent to which N,MW&HVs are leading the role and structural developments and the extent to which they are externally driven.

It is important that a balance is achieved in the future assessment of roles and structures so that established roles and structures are not neglected, particularly as much of the contribution of N,MW&HVs is embedded in those roles and structures.

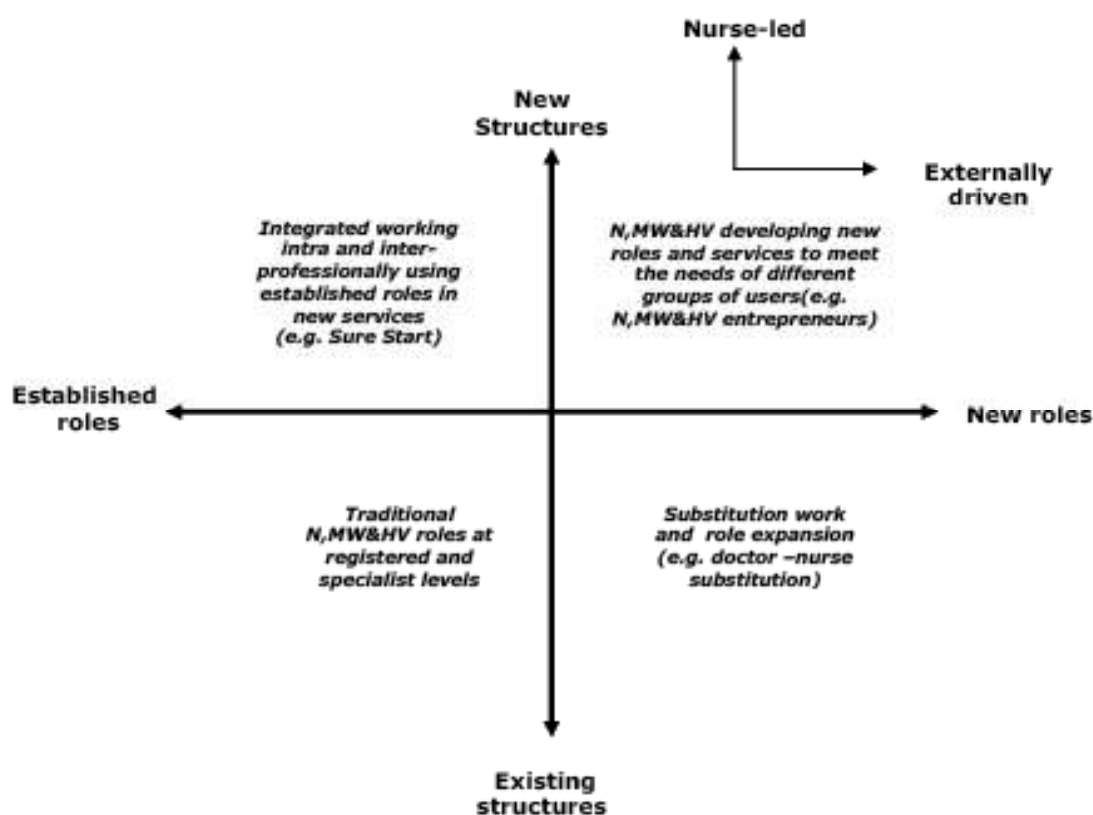
In addition, while it is important that future research considers the effect of different policies, structures and roles in examining the contribution of N,MW&HVs to different areas of child health, care needs to be taken to

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ensure that the primary focus remains on identifying the fixed factors that matter in meeting the needs of the target population. This concern is raised, as the literature examined is replete with evaluations of specialist roles and policies that contribute little to the clinical knowledge base.

It is suggested that if roles and structures are to be examined that they are viewed within the broader care system to ensure that findings are generalisable and related to other factors that may explain the observed effects. An area not covered in the scoping exercise but warranting further examination is the relationship between N,MW&HVs and health care assistants.

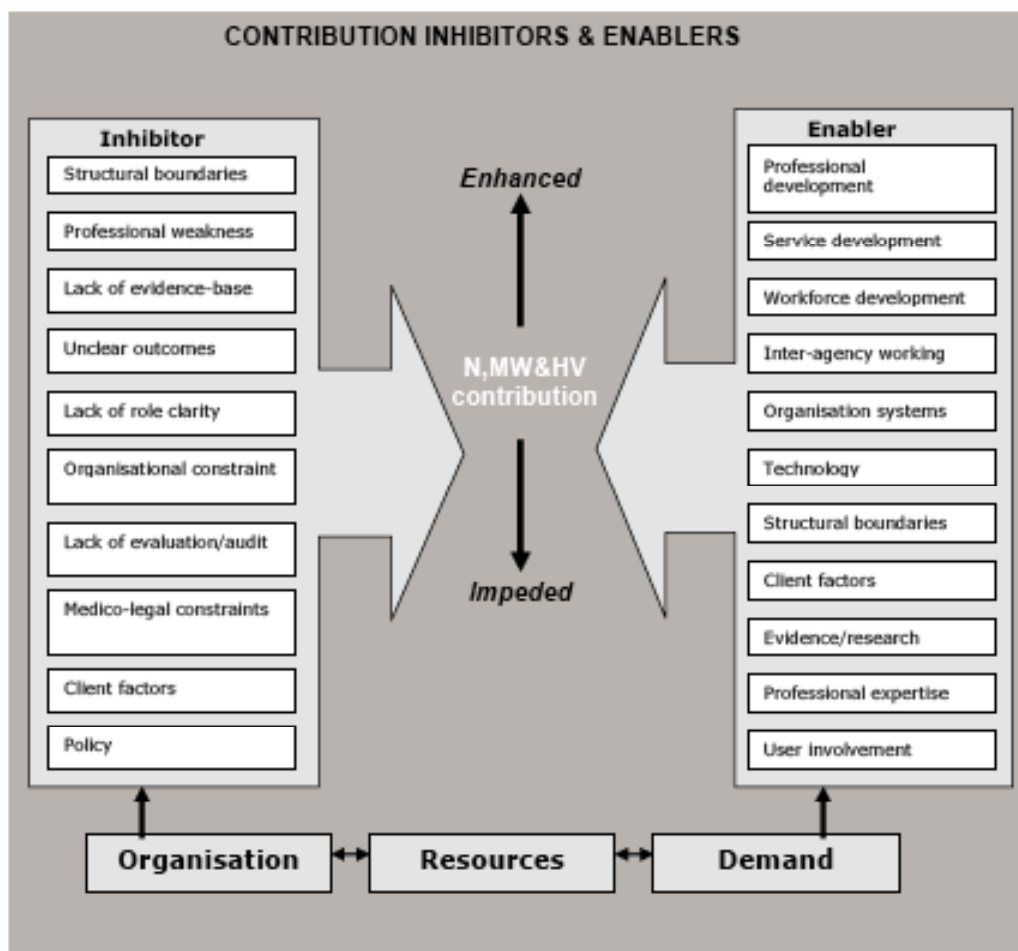
Figure 7 Structures and roles



4.3 Enablers and inhibitors.

The scoping exercise (both via the literature and the participative conferences) identified a range of factors that may enable or inhibit the contribution of N,MW&HVs. These factors are summarised in Figure 8.

Figure 8



Many of these factors are underpinned by more fundamental issues such as the way services are organised and resourced in relation to the demands placed upon them. There was, as might be expected, a relationship between the enabling and inhibiting factors. For example, the enabling factor of professional development (which includes training and education) is a response to the perceived deficits in professional knowledge and skills in different areas, which were key components of the professional weakness inhibiting factor.

The lack of professional knowledge is also linked to the issue of 'role clarity'. Role clarity was both an internal (e.g. school nurses being unclear about their role because so much is now being demanded of them) and external (e.g. teachers and young people not being clear what the role of the school nurse is). Indeed, while role expansion gathers pace there is a need to consider how N, MW & HVs are being prepared and supported in developing the skills necessary for these roles. The current discussions relating to the *Knowledge and Skills Framework* have yet to map roles fully against the proposed framework, however, clarification of expected competencies is imperative to enable adequate role performance. Additionally service users require help to understand what to expect from these roles.

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Other inhibitors included: structural boundaries (e.g. poor integration or collaboration between agencies); lack of evidence (insufficient evidence to support practices); unclear outcomes (many outcomes are expressed in positive health gains and in the future so that immediate effects not observed); organisational constraints (a major source of frustration for many practitioners is that professional objectives are often at odds with target-driven objectives of the employing organisation); lack of evaluation (too little resources are used to evaluate and audit services and practices so that they can be modified); medico-legal factors (problems to do with confidentiality and consent, particularly in relation to child and parental rights); client factors (it is recognised that some populations are more difficult to work with, particularly those living in disadvantaged communities); and policy (there is too much of it and practitioners find it stifling and the continuous change leads to undermining).

Enabling factors included: service developments (progressive approaches to providing care more flexibly responding to service needs, the ability to challenge the established structure); workforce development (creative use of skill mixing and the development of new roles); inter-agency working; organisational systems (such as better information management systems); technology (the use of health technologies to enhance care); evidence (research based evidence to guide practice); professional expertise (having the necessary knowledge and skills to provide care efficiently); and user involvement.

4.4 User perspectives and participation.

Overall very little material was identified in the literature that reported the user perspective on the contribution of N,MW&HVs to child health. However, a number of key themes emerged, some of which were related to general views of health care with others being more specific to N,MW&HV.

General

Perceptions of health professionals – some young people hold negative views of health services and professionals regarding them as authoritarian figures. Parents perceive health professionals (including N,MW&HVs) to be dismissive of worries, particularly in relation to minor illness.

Place of care – young people with chronic disorders find school-based care more acceptable.

Parental involvement – while young children want their parents to be involved in their care, older children may not. Parents feel it is important that they are involved in decision-making but they do not always want to be the care deliverer.

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Choice, flexibility, responsiveness and accessibility – these were among the issues identified by young people and parents as being important in their health care experience.

Care resources – whether the treatments and therapies that people want are available (e.g. carer breaks/respite).

N,MW&HV specific

Comforter – children view nurses as providing comfort.

Trust & honesty – children appreciate honesty.

Availability – the availability of the N,MW&HV (relational care) is appreciated.

User participation – involving young people and parents in care and in service planning.

Acceptability – parents, children, and young people accept advice from N,MW&HVs, although they prefer to get advice from their family, friends or GP.

While these themes are tentative and by no means comprehensive, they provide some indication of both the general and N,MW&HV-specific views of users on what is important in relation to health care contributions. However, more work is required to understand the user perspective. Areas that should be considered are:

- the experience of children and parents of midwifery and health visiting care during the early years
- the experience of children and parents of nursing care during acute illness episodes
- the experience of children and parents with chronic illnesses or disability of nurse-led care management
- children's and young people's views of the health care and advice provided by school nurses
- the acceptability of care delivered by N,MW&HVs.

The latter area may be particularly important with N,MW&HV taking on roles traditionally performed by doctors.

4.5 Limitations of the scoping exercise

This was a very ambitious scoping exercise that has attempted to cover the breadth of the N,MW&HV contribution to child health, addressing the changing context of that contribution.

Clearly it has not been possible to examine every area of practice nor has it been possible to explore the identified areas in-depth. Hence there are aspects of the contribution that may have been overlooked or are under-reported. An area which did not emerge strongly in the scoping was the traditional roles and activities related to basic nursing care. This weakness

may be related to a more general bias (particularly in the literature) toward more specialist, advanced and novel areas of practice to the neglect of embedded practice. More specific limitations include the following.

Potential bias in review materials

In the wider topic areas (e.g. cancer and asthma) the volume of material necessitated that a random sample of material be selected. This means that potentially important materials were overlooked, although the specialist reviewers identified no major omissions. In the areas of practice where item yield was poorer (e.g. looked-after-children and minor illness) the literature may not contain the full range of practices currently being undertaken. Another important bias was the under-representation of midwifery within the review, reflecting the choice of topics. It may be useful to consider the contribution of midwives in a more focused way.

Potential stakeholder bias

While efforts were made to recruit conference participants from a broad range of areas and levels of practice, most participants were working in more senior posts. There was also a poor response from other professionals and from service users.

An original intention of the review was to consider the contribution actually and potentially. While this distinction was maintained in the individual reviews, tracking actual and potential contributions was not feasible within the overall synthesis given the level of thematic categorisation.

The consideration of broader policy and organisational issues within the scoping exercise was limited. However, an attempt was made to consider the policies and structures specific to each of the targeted review areas in the form of mini policy reviews and associated structures. Some of the organisational issues facing the N,MW&HV contribution to child health are summarised in relation to enablers and inhibitors (Section 4.3).

Despite these limitations, the scoping exercise has generated an initial broad conceptualisation of the contribution of N,MW&HVs to child health to help inform primary and secondary research in this area. It is anticipated that future research will test and build upon this initial work.

4.6 Conclusions.

The aim of the review was to explore the contribution of N,MW&HVs to child health. The review has shown that the contribution of N,MW&HVs to child health is multifaceted and integral to the delivery and organisation of child health services in the UK. Given the inherent complexity of the contribution, the major output of this work is the provision of a conceptual framework to help direct future inquiry. This framework delineates key areas of the contribution, while acknowledging the overlap between the identified areas of assessment, health promotion, clinical care and health care organisation.

The review has also highlighted a number of areas in which the contribution is evolving. The review materials provide evidence that the contribution is becoming more specialised in nature in many areas of practice. This

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specialisation is evident in the creation of more targeted services (e.g. Sure Start); evolving clinical structures (e.g. CAMHS); doctor substitution roles; and the expanding use of health technologies by N,MW&HVs (including prescribing). While this increasing specialisation suggests that N,MW&HV roles are changing to meet the modern child health agenda, it is cautioned that traditional nursing roles and activities should not be neglected in any future research programmes as meeting basic needs remain central to child and family health.

The scoping review has identified that the contribution of N,MW&HV impacts on many outcome domains relating to both health and illness. However, the number of rigorous evaluations of N,MW&HV interventions remains small, despite the emphasis upon evidence-based care within current health care practice (DfES & Dept of Health, 2004). Some of this deficit can be explained by the relative immaturity of N,MW&HV focused research. Additionally the recent rapidly changing policy framework mitigates against confirmatory programme evaluation, despite the potential benefits for children, young people and maternity services through the impact of the results upon policy and practice. However, N,MW&HV practitioners could contribute to the evidence if rigorous evaluations became a routine component of professional practice instead of the current situation in which evaluation is something which is 'done' to practitioners when there is a specific commission. The review has made recommendations for future focusing on the evaluation of specific practices to provide evidence.

While this scoping exercise did not explicitly focus upon the user perspective, it was clear that future research needs to address the user perspective of the contribution of N,MW&HVs to child health services if service changes are to reach 'hard to reach' children in addition to the child and young person population and their families as a whole.. Reflecting this, future research should draw a distinction between the views of children and young people and their parents in line with the UN Convention on the Rights of the Child (United Nations, 1989).

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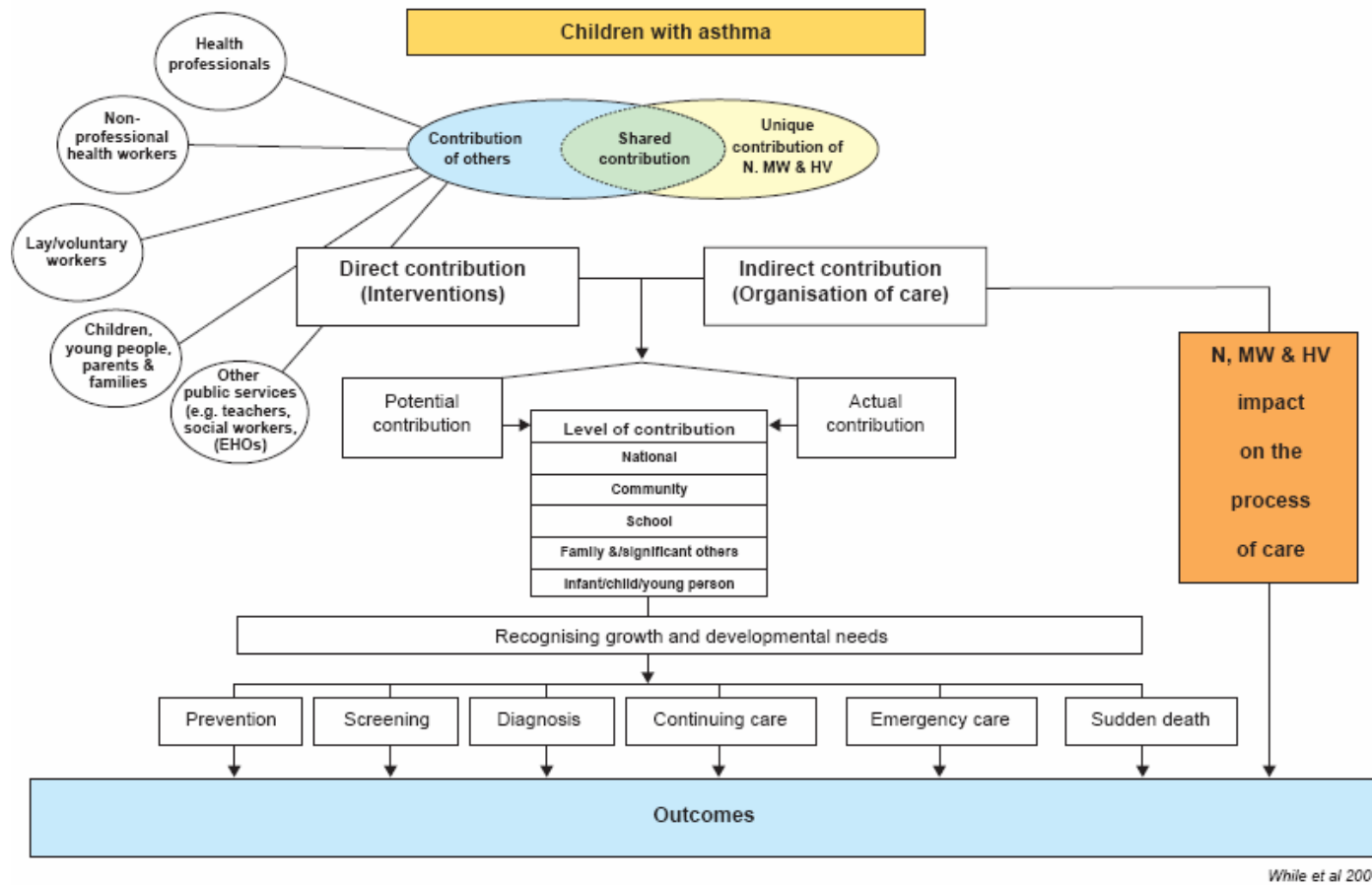
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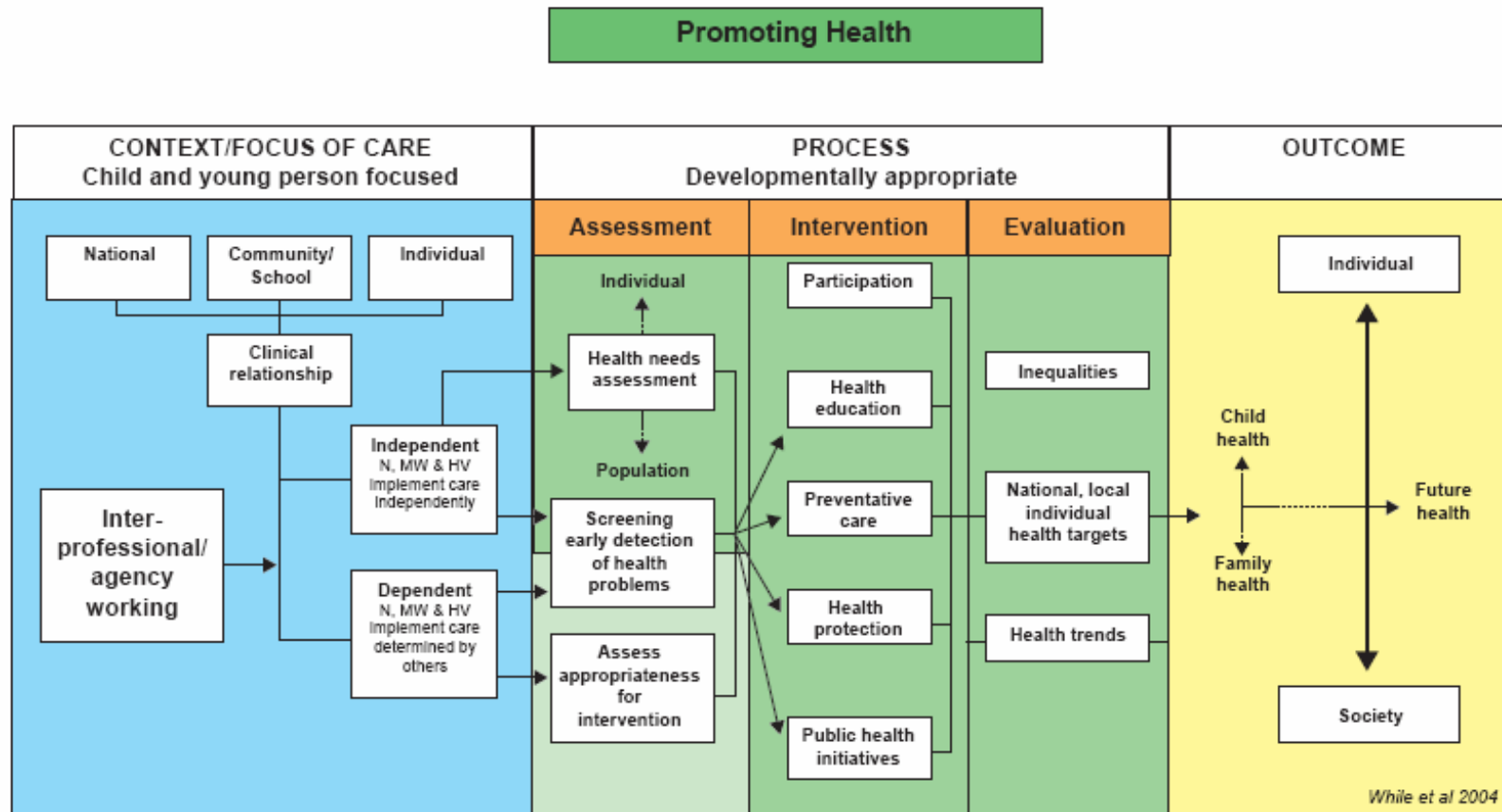
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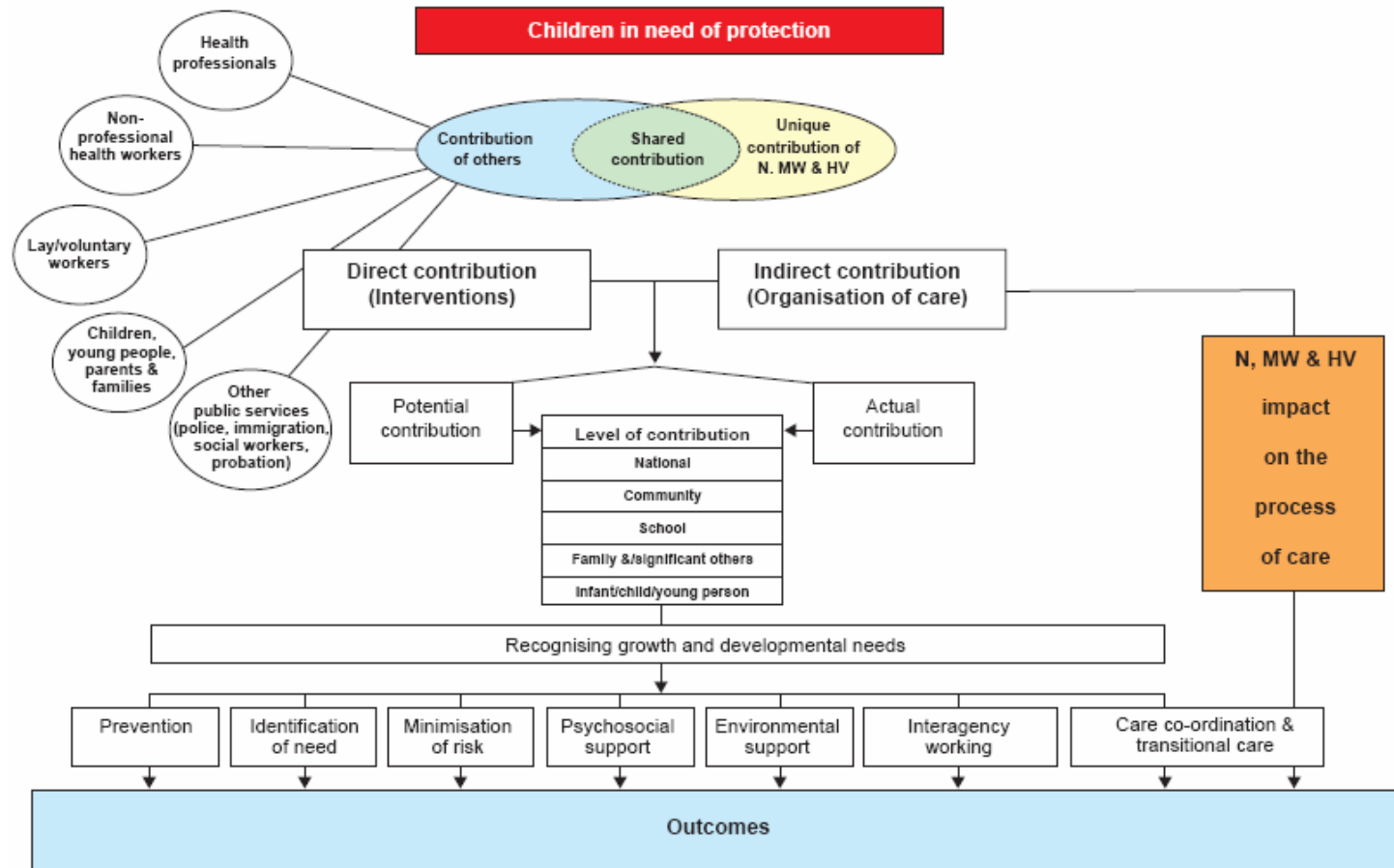
Appendix 1 Initial conceptual models



The contribution of nurses, midwives and health visitors to child health

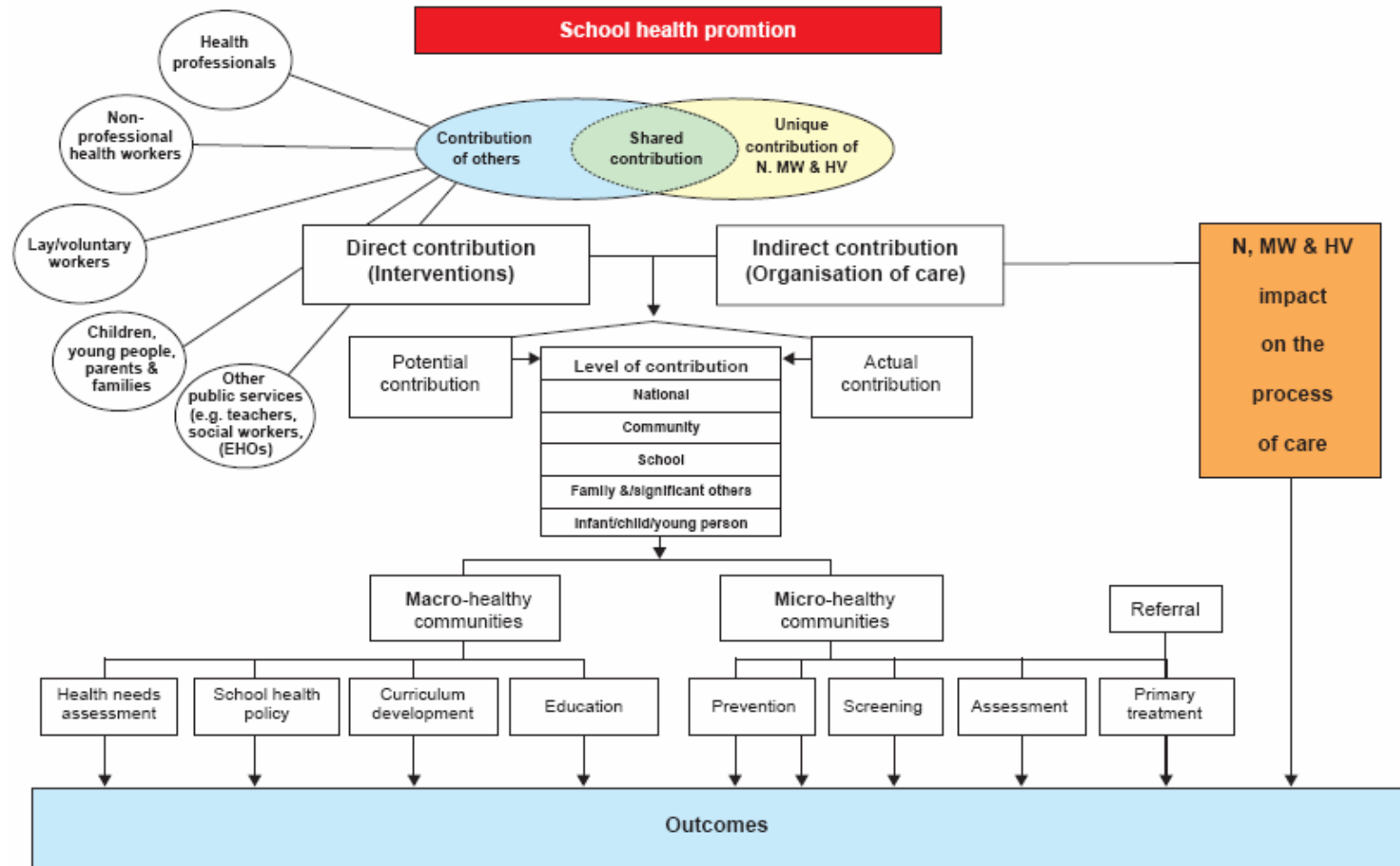


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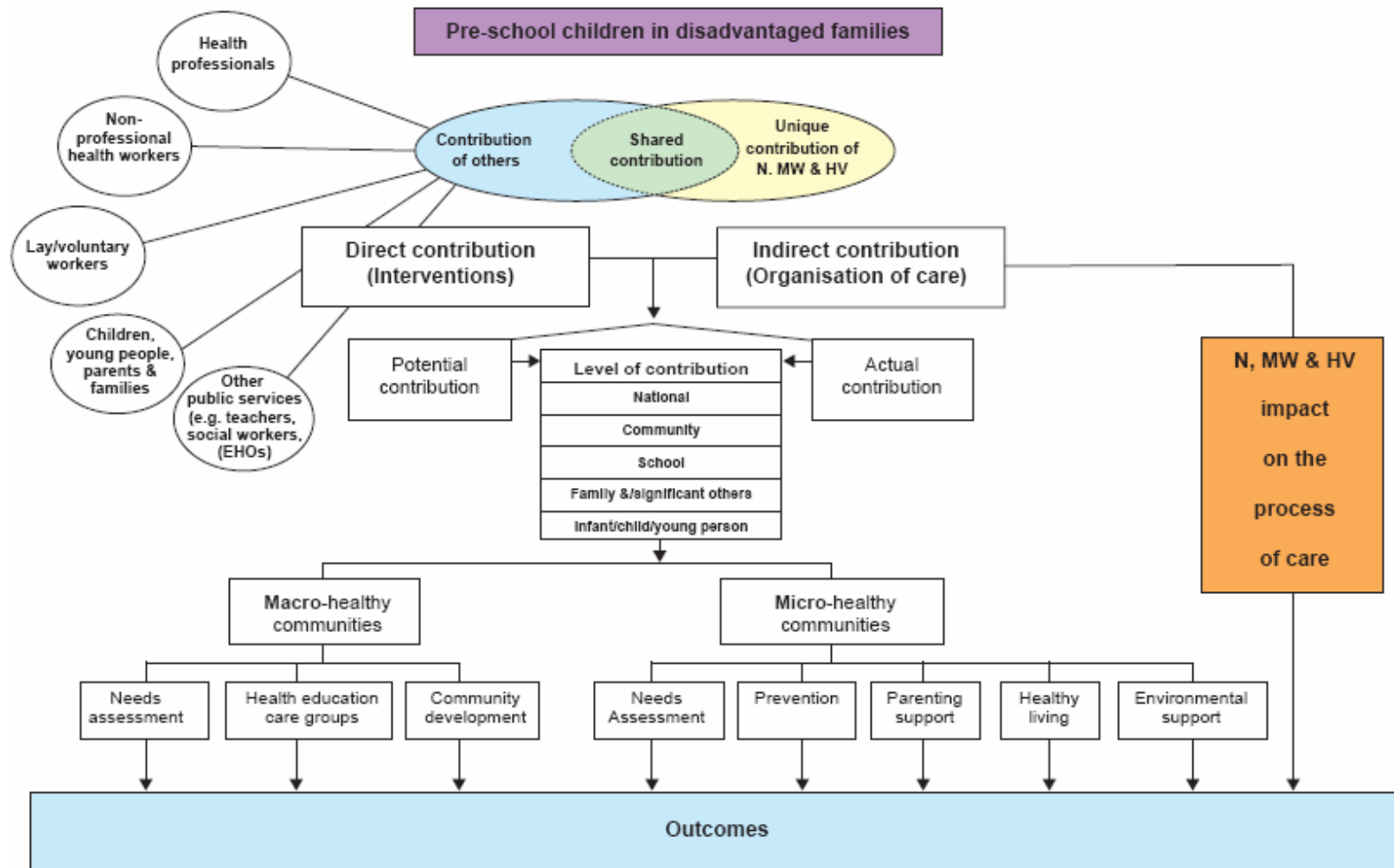
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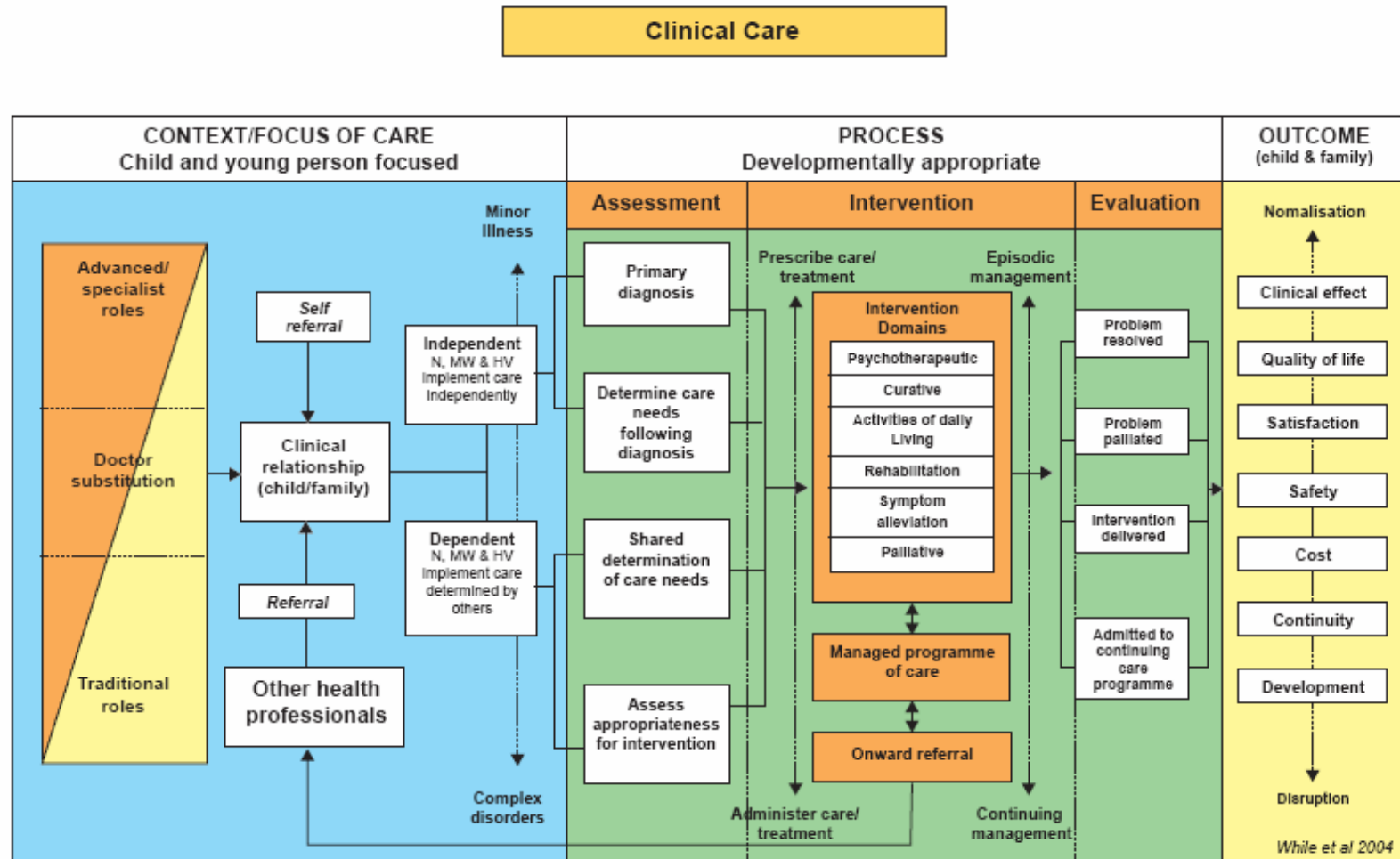
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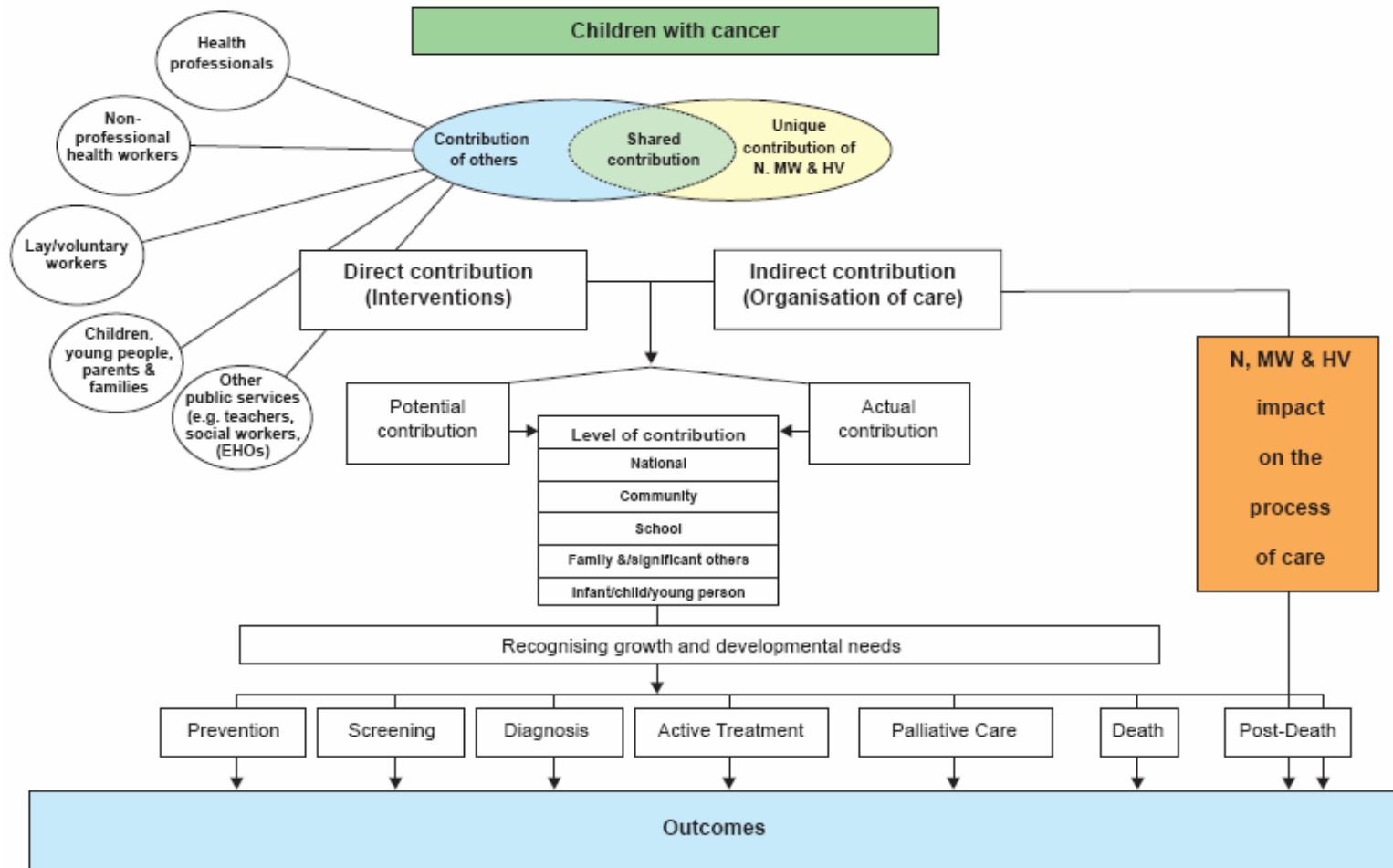


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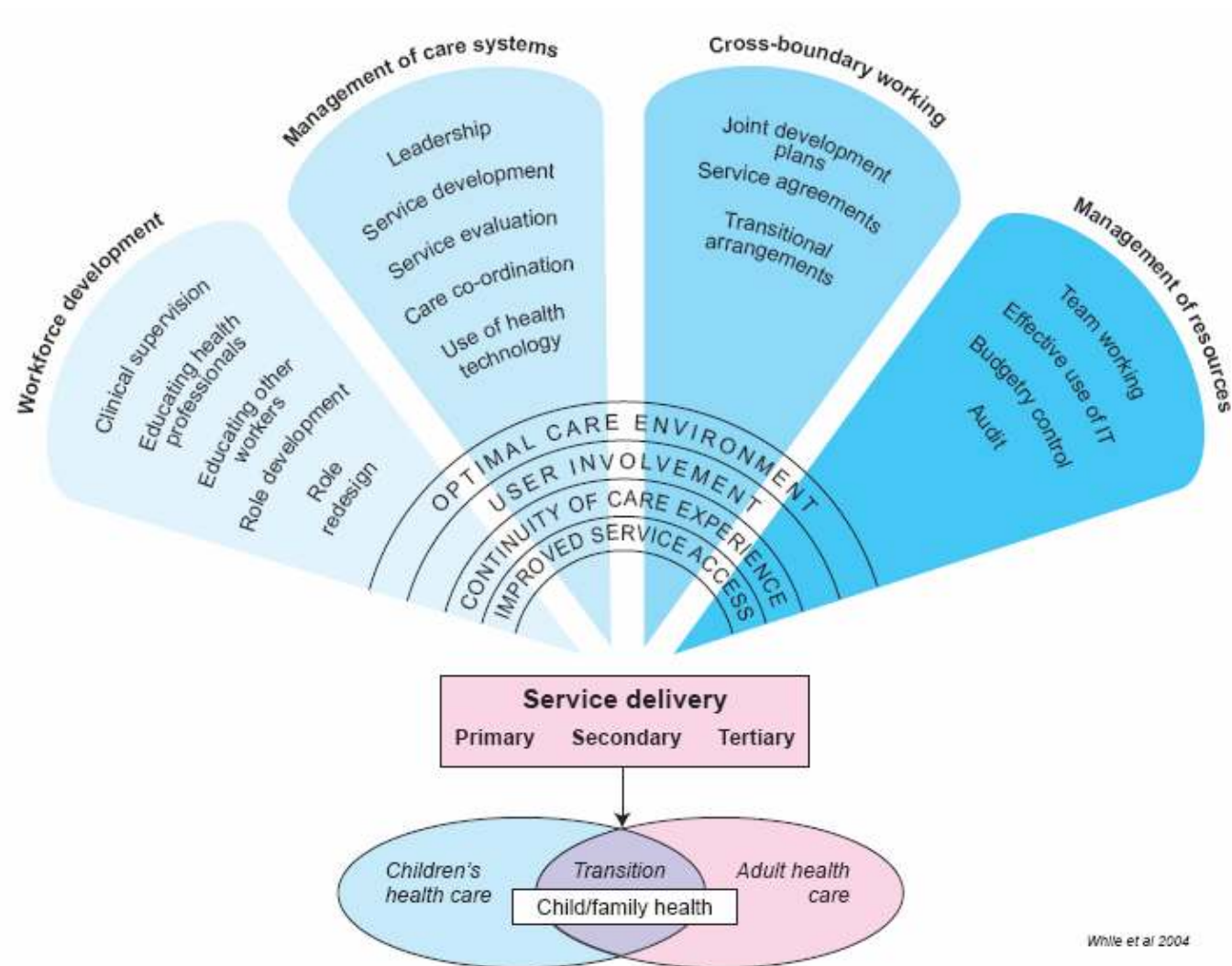


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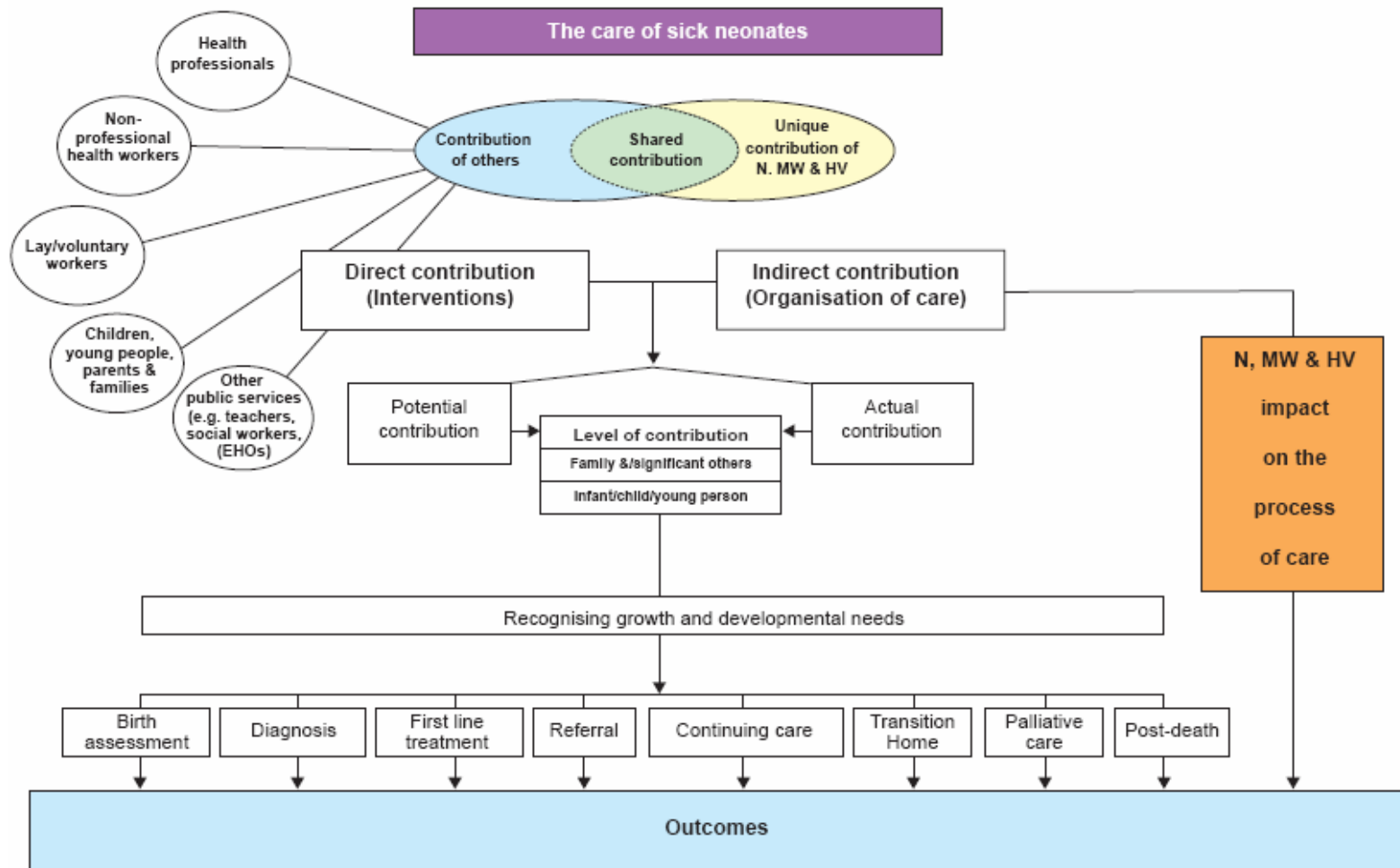


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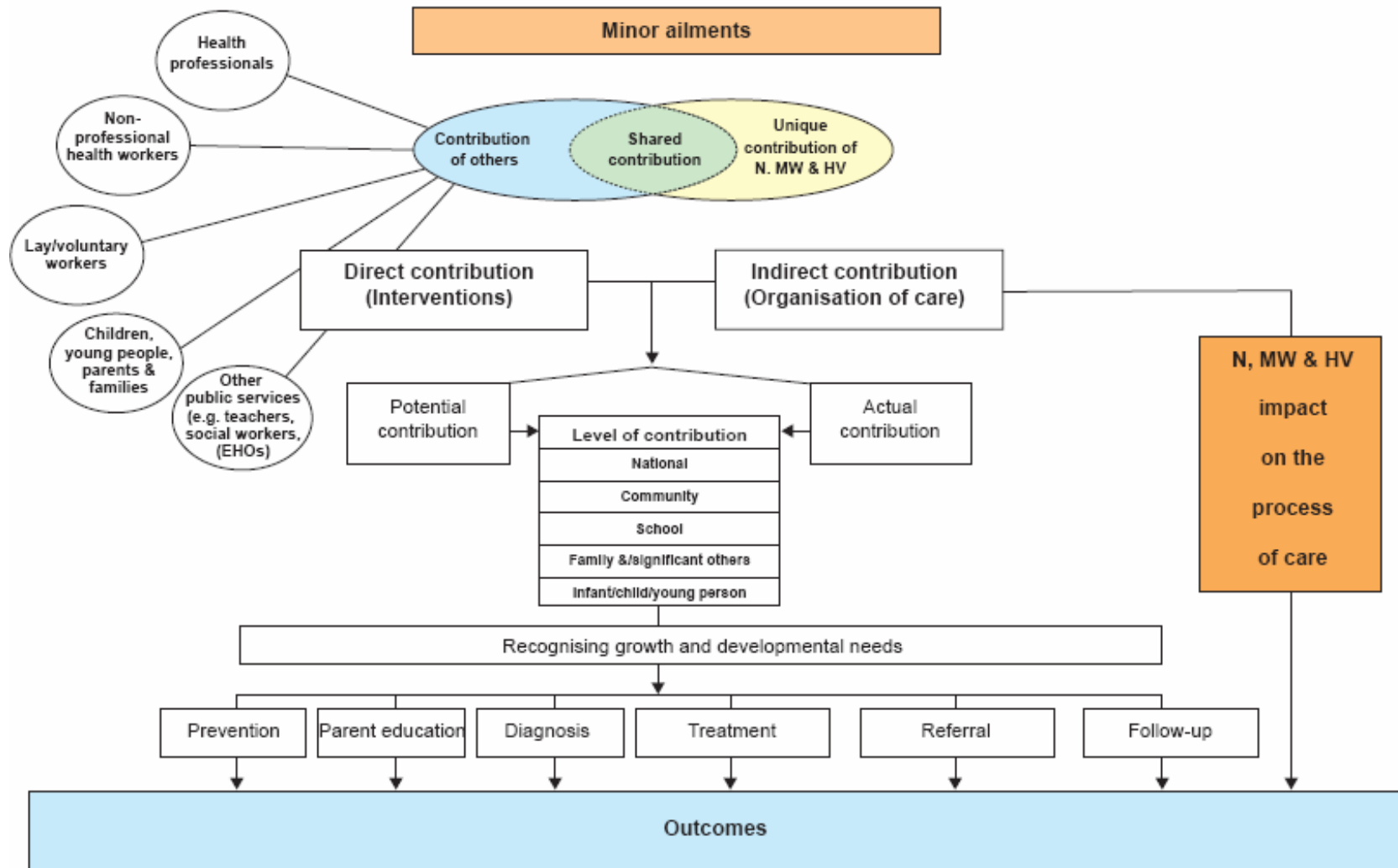


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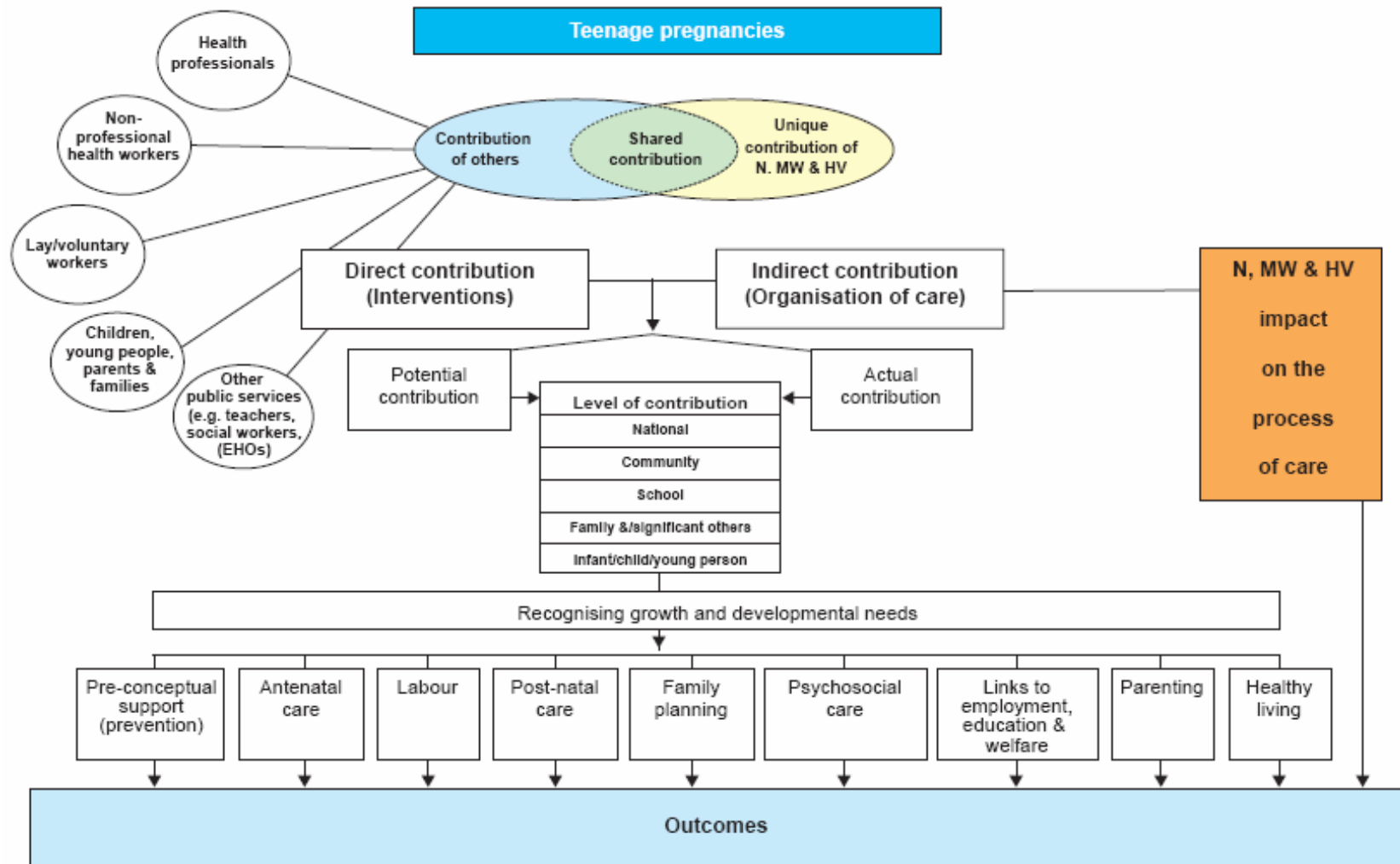
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