



Early Intervention Project

Five Borough Alliance 'Prevention' sub-group

Final Report

Project Brief

This research project has been commissioned by the Home Office Tackling Gangs Action Programme, through the Prevention sub-group of the Five Boroughs' Alliance. The research commenced in September 2008 and was concluded in February 2009.

The project brief was as follows:

Early Intervention Projects

Development of an early intervention risk assessment tool and identification and evaluation of early intervention best practice.

- *Development of Early Identification Risk Assessment Tool*

This project is to develop a risk assessment tool that will guide early years professionals in how to identify children at risk of developing violent personalities. Research will target children from the ages of 0-3 years.

- *Identification and evaluation of Early Intervention Best Practice*

This project is to evaluate current early intervention practices and evaluate the effectiveness of approaches to combat the development of violent personality traits.

Outcomes

Two reports for use within the Five Boroughs' Alliance, covering

- a framework to identify children at risk of developing violent propensities.
- a set of best practice early interventions to shift outcomes for these children.

The two reports have been combined into a single document to provide a smooth narrative.

The document is organised in three sections. The first section provides the context for the project and its relevance to the overall agenda of reducing gang violence. The second section covers the report on the topic of risk assessment, and the third section covers the report on a set of best practice early interventions.

1. Introduction

This first section places the report in the context of the Prevention remit of the 5 Boroughs Alliance Prevention sub-group, and the gang violence reduction remit of the Home Office TGAP project.

Briefly, the section establishes why very early intervention is needed order to bring about significant and enduring reductions in levels of gang violence in the UK. A detailed exposition on the roots of violence can be found in the *WAVE Report 2005: Violence and what to do about it*. The argument put forward in that report can be summarised in 3 points:

1. Delinquency tends to precede adult violence (e.g. within a gang)
2. Such behaviour can be highly stable as early as age 3
3. Wrong treatment before age 3 is a prime causal factor

A brief elaboration of each of these points follows.

1.1 Delinquency tends to precede gang affiliation

Gang members tend to be associated with higher levels of violence than non-gang members. A key reason for this is that gangs attract individuals who have a higher propensity for delinquency (Curry & Spergel, 1992). Studies such as the Buffalo Longitudinal Survey of Young Men indicate that while gang membership may have a modest incremental effect on delinquency, prior delinquency significantly affects gang membership (Zhang et al., 1999). Serious delinquency and violence thus *precede* gang involvement.

Looked at from a different perspective, the most accurate indicator of whether or not a person will commit an act of violence in the future, is simply whether or not they have committed such an act in the past (Norko and Baranoski, 2005). This is because aggression and violence are fairly stable character traits (Huesmann et al, 1984) – and the earlier aggression is established, the worse the long-term outcome tends to be (Rutter, Giller & Hagell, 1998; van der Kolk et al, 1993). We have a better chance of bringing about significant and enduring reductions in levels of gang membership and related violence if we intervene even before aggression is established in the individual.

1.2 Aggression can be highly stable as early as age 3

Because the early years are crucial to later social development, pathways to violence can often be laid down as early as age 2 or 3 (Hosking, 2001; Shaw et al, 2001). The result can be aggressive personalities for life: Cummings, Iannotti & Zahn-Wexler (1989) suggest that male aggressive behaviour is highly stable as early as age 2. After age 3, the habit of violence has been found to be increasingly difficult to shift. Three quarters of aggressive 2-year-olds are still aggressive at 5; thereafter it is an even more stable trait (Eron, 1997). Serious antisocial behaviour is highly resistant to change in school-age children (Kazdin, 1987; Tolan & Gorman-Smith, 1997).

Compelling evidence of the early age at which the roots of violence can be planted comes from the New Zealand Dunedin Study, in which nurses could predict future criminal tendencies 18 years in advance (Caspi et al, 1996).

Every child born in Dunedin in 1972 has been monitored from birth and assessed every two to three years on a variety of health, social, behavioural and environmental measures. In the course of this monitoring, nurses identified an “at risk” group of 3-year-olds on the basis of 90 minutes’ observation; these children were restless and negative, and lacked persistence and attention.

At age 21, males in the “at risk” group were compared with other 21 year olds: 47% abused their partners (compared with 9.5% of others); three times as many had antisocial personality; two and a half times as many had two or more criminal convictions. 55% of “at risk” offences were violent (compared with 18% of others). The “at risk” group not only committed many more violent offences, but also much more severe ones, such as robbery, rape and homicide.

Fewer of the females became conduct-disordered but, where they did, 30% of the “at risk” group had teenage births (the others had none) and 43% were in violent, abusive relationships (Moffitt & Caspi, 1998). The authors conclude: “Immature mothers with no strong parenting skills, and violent partners, have already borne the next generation of ‘at risk’ children.”

The Dunedin findings are backed by UK research. Stevenson and Goodman (2001) found specific behaviour problems at age 3, especially non-compliance and temper tantrums, place a child at increased risk of adult criminal offences (especially violent offences). They concluded: “Behaviours predictive of later criminality do not emerge only when the child enters school, but are identifiable before that stage.”

1.3 Wrong treatment before age 3 is prime causal factor for violence

What causes aggression and violence this early in life? And why is it as stable as it is?

Violence can be understood as having two components: an individual’s *propensity* (personal factors) and external *triggers* (social factors). Social factors alone (however undesirable) lead to violence only when the internal propensity is also present. In the absence of a weapon, a trigger is harmless. While numerous social factors can act as triggers, it takes specific experiences in a limited time-frame to produce the propensity. Specifically, a prime factor in the development of a propensity for violence is wrong treatment before age 3 (Hosking and Walsh, 2005).

Emerging evidence from the fields of neuroscience and child development may provide an explanation for how and why this happens.

During the first three years of life there are sensitive windows of time when specific learning takes place and the brain hones particular skills or functions. Certain elements of human capability such as vision, language and emotional development occur in spurts during these sensitive times. The size of the window is different depending on the skill - synapse formation in the visual cortex peaks at 3 months and is finished by age 2. An infant’s auditory map is formed by 12 months. If the chance to practice a skill is missed during the window relating to that skill, a child may either never learn it, or its learning may be impaired (Schore, 1997). For example, Japanese children who do not learn to distinguish between the

sounds of the letters L and R by 12 months, by which time their auditory map is formed, have great difficulty in doing so ever afterwards.

Thus the trade-off for superior ultimate capacity is initial vulnerability: the more mature the offspring, the greater the need for long-term parental support. These conditions mean the potential for a human being is largely defined by the quality of the support received in the very early, formative years. To the best of current knowledge, the sensitive window for emotional sensitivity and empathy lies within the first 18 months of life, and these “skills” are shaped by the prime carer’s interaction style. The wrong style can have disastrous results.

If the early experience is fear and stress, especially if these are overwhelming and occur repeatedly, then the neurochemical responses to fear and stress become the primary architects of the brain. Trauma elevates stress hormones such as cortisol that wash over the tender brain like acid (Perry, 1995; Shore, 1997; Gunnar, 1996). High cortisol levels during the vulnerable years of 0-3 increase activity in the brain structure involved in vigilance and arousal (the locus coeruleus, responsible for hair-trigger alert), as one might expect in a child under the permanent threat of sudden violence (Eisler & Levine, 2002; Perry et al, 1996). This causes hyperactivity, anxiety and impulsive behaviour.

A baby who is healthily attached to its carer can regulate its emotions as it grows older because the cortex, which exercises rational thought and control, has developed properly. But in the case of the child whose life has been badly impacted, the cortex is underdeveloped. The unfortunate result can be a tendency towards delinquency, gang membership, and violence. Studies have found a pathway from low maternal responsiveness at 10-12 months through aggression, non-compliance and temper tantrums at 18 months, lower compliance, attention getting and hitting at 2 years; problems with other children at 3 years; coercive behaviour at age 4 and fighting and stealing at 6 years (Shaw & Winslow, 1997). Interestingly, low maternal responsiveness at 18 months did not have this effect (Martin, 1981), consistent with the hypothesis that “windows” for development make the timing of deprivation significant.

To present the key points of the argument for early intervention again, they are:

1. That delinquency tends to precede gang affiliation
2. That such behaviour can be stable as early as age 3
3. That wrong treatment before age 3 is a prime causal factor

The evidence suggests that long term reductions in levels of gang violence in the UK may not be possible unless adverse early experiences (especially before age 3) are significantly reduced. A detailed strategy on how to reduce the prevalence of adverse early experiences is beyond the remit of this report. However, two components of such a strategy would be:

1. Tools to identify children under 3 at risk of delinquency/poor outcomes
2. Interventions that potentially prevent such outcomes

The next two sections discuss these components respectively.

2. Early identification of children at risk of poor outcomes

Established negative parent-child interaction is hard to change (Sanders and Cann, 2002) - interventions that begin only after maltreatment has taken place do not have a good track record. MacLeod and Nelson (2000) conducted a comprehensive review of 56 separate programmes designed to promote family wellness and prevent abuse. They looked at what they called “proactive programmes” that begin antenatally, at birth or in infancy; and “reactive programmes” that begin at school age and focus on parenting strategies to prevent recurrence of problem behaviour. They identified that proactive programmes (antenatal, perinatal, infancy) had greater effect sizes at follow-up – i.e. the improvements actually *increased* over time – whereas the benefits of reactive programmes tended to fade with time, with relapse more common.

Other researchers have expressed concern about the long-term effectiveness of interventions that follow maltreatment rather than precede it. Ayoub et al (1992) report that re-abuse rates following treatment range from 18.5% to 66%. The difficulties of engaging and maintaining abusive families in treatment have been well documented: up to 33% of these families will maltreat their children while undergoing treatment (Cohn and Daro, 1987). 1 in 4 children referred to police child protection units is re-referred within 27 months for a new incident of child maltreatment, with the re-referral rate doubling following the second referral (Hamilton and Browne, 2002). 30% of children in need due to abuse or neglect are eventually taken into Care. 50% of children in Care spend more than one period in Care during their childhood. And since outcomes for children in Care are notoriously poor, the picture we have is of a conveyor belt proceeding relentlessly from tragedy to tragedy.

Strong reductions in future levels of gang membership and associated violence would be greatly supported by present action to prevent child maltreatment. And since to *prevent* something means to anticipate its occurrence, we need to be able to anticipate which families are more vulnerable and therefore in greater need of support. Such anticipation is a necessary step if we are to reduce the occurrence of adverse childhood experiences and their unfortunate consequences – notably gang membership and associated violence.

2.1 Screening to identify vulnerable children and families

How do we identify children who are at risk of future delinquency? Research studies over the past few decades have confirmed a set of early markers of future delinquency. A list of these, together with a brief description, are provided in Appendix A.

For instance, we know that maternal smoking in pregnancy increases the risk of persistent criminality of the child by a factor of 2.4 even after adjustment for multiple other factors (Räsänen *et al*, 1999). This does not mean that if a mother is smoking during pregnancy their child is going to become a criminal. All it means is that if we had limited resources for preventative work, “all other things” being equal, it would be more strategic to support families where the mother smokes than families where the mother does not smoke. But “all other things” are seldom equal (risk factors tend to occur in clusters rather than in isolation) – so we need to use a more sophisticated process of identifying which markers or which

combination of markers are more informative in helping us decide how to allocate resources for prevention.

Such an approach to this question can be called 'screening'. This is a term used to describe a process of identifying individuals most likely to benefit from support to help prevent a future adverse outcome. At a population level, screening can tell us how risk is distributed in the community. It can help us decide what interventions we should fund, and how many individuals are likely to benefit from them. A screening 'instrument' is used to determine the presence of risk factors that increase the likelihood of the adverse outcome occurring. Although usually employed within the context of physical health (e.g. screening for breast cancer), screening instruments have been used in other contexts as well.

There are a number of screening instruments suitable for use at different stages in the child's life, starting before birth. The use of these instruments can help identify the children and families who need additional support to ensure optimal development, away from poor outcomes such as delinquency. It is important to note that these methods of screening use probabilistic concepts that apply to an aggregate of individuals and not to a specific individual. That is, there is no way to predict with certainty who is going to be in a gang.

Why should we screen then? Rose (1992) suggested, and we agree, that the purpose of screening is not "to categorise individuals according to a test result nor even as to their overall risk, but rather to identify those who can be helped, or helped most, by preventive action." What a screening instrument *can* achieve, is the identification of a sub-population likely to exhibit a higher incidence of the outcome of concern.

We therefore looked for a screening instrument that:

- Included several salient markers of risk
- Could be used from the onset of pregnancy
- Had been tested and validated

True to our expectation, the instruments we found suitable for use had, in general, been developed to screen for child maltreatment and/or developmental delays.

> Instruments to help identify vulnerable children under age 2

Of the instruments designed for use with vulnerable children under the age of 2, the most suitable instrument we found was the Index of Need.

Index of Need

This instrument was designed by Browne and Hamilton (Browne *et al*, 2006): Kevin Browne is Head of the WHO's Collaborating Centre for Child Care and Protection. The instrument was developed through a 5-year follow-up of 14,252 newborns in Surrey. A statistical comparison of 106 abusing families with 14,146 non-abusing families was conducted. 13 factors distinguished the two populations from each other: these are listed below. Each factor was assigned a score of 1, 2 or 3 to indicate its relative predictive value, as well as its influence on other risk factors (e.g. a family with a drug-abusing parent is significantly more in need of support if the other parent feels indifferently about the baby).

Factor	Score
Complications during birth or separated from baby at birth	1
Mother or partner under 21 years old	1
Mother or partner not biologically related to the child	1
Twins or less than 18 months between births	1
Child with physical or mental disabilities	1
Feelings of isolation	1
Serious financial problems	2
Mother or partner treated for mental illness or depression	2
Dependence on drugs or alcohol	2
Infant seriously ill, premature or weighed under 2.5kg at birth	2
Single parent	3
Adult in the household with violent tendencies	3
Mother or partner feeling indifferent about their baby	3

Professor Browne and his colleagues then trained health visitors in Essex to use this framework. Health visitors were trained to work in partnership with parents during this process, actively encouraging parents to assess their own need. Parents were to be given the Index of Need form, and each term explained. At subsequent visits the Health Visitor would enquire about progress on the form and offer help, but unless there was evident suspicion of child maltreatment (in which case a referral was to be made to Social Services), the parents were to be invited to lead on the Index and propose the level of support they need.

The researchers studied the framework's efficacy by following a cohort of 4,351 newborns in Essex. At the end of the first year, health visitors had used the framework in partnership with nearly all the parents and identified 4% of the 4,351 babies as being "high priority" in terms of support need. The entire cohort was then followed for five years. The results are shown below: by age 5, 70% of the cohort's referrals for child protection came from the "high-priority" group identified through 'Index of Need'.

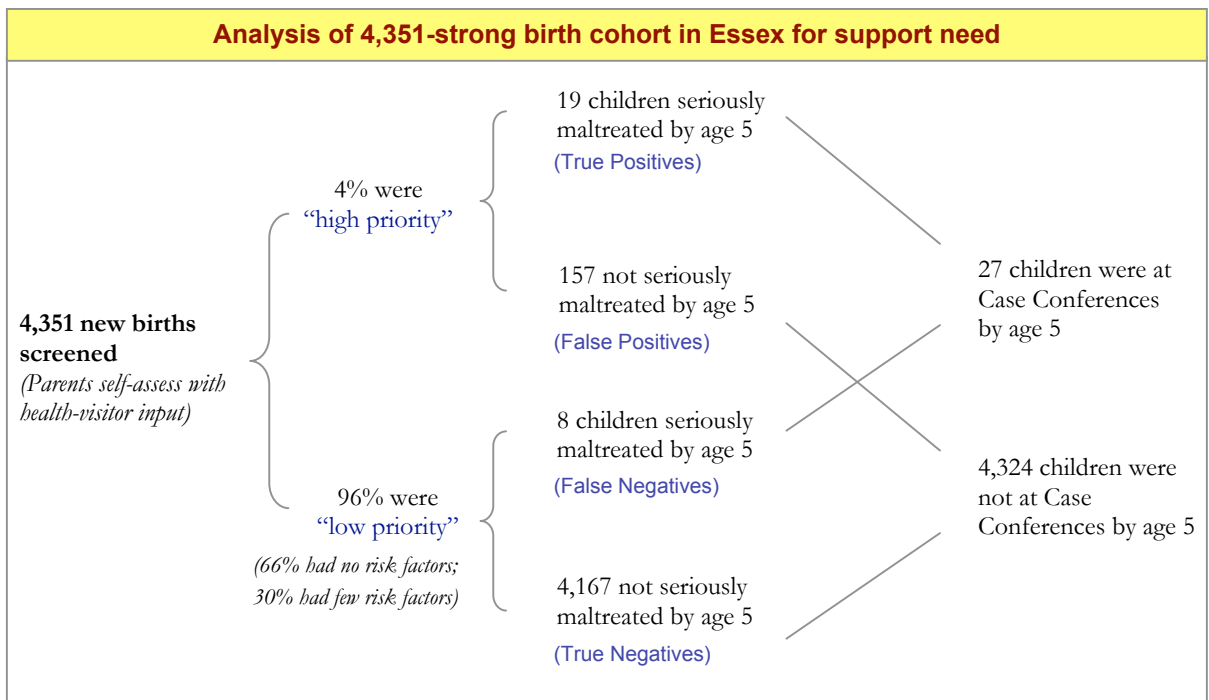
There have been some concerns expressed about the model and we would like to address these here. The main criticism is that there are a large number of 'false positives' and some 'false negatives'. What does this mean?

Consider the chart on the following page. 157 children identified by the Index of Need as "high priority" did not go on to reach child protection levels ("false positives"). Some observers see this as a serious issue because it could be (1) stigmatising or (2) a waste of resources. In addition 8 children who did go on to be referred to Social Care had not been identified by the instrument as high priority ("false negatives") at birth.

Having reviewed the arguments, our conclusions are:

- That the fundamental issue is the *consequence* of being identified as "high priority". If the information is used to label and stigmatise parents the instrument may indeed cause serious harm. **We do not recommend such use.**

- If the consequences are positive (e.g. offers of additional support to be freely accepted or refused) then it is an excellent instrument to use. In fact, ethical considerations probably eliminate any other use.
- The false positives described in this study refer to families who did not reach the threshold to require a Social Services case conference. Yet, official thresholds for maltreatment are no indication of the actual prevalence of maltreatment. A major review on this subject recently published in the Lancet (Gilbert et al., 2008) concluded that over 90% of child maltreatment goes undetected. In other words, these “false positives” are very likely to be “missed positives”.
- Case conferences are the extreme end of child maltreatment, when the case is considered potentially so serious that the child requires statutory protection. The Lancet evidence suggests that there are a large number of families who experience maltreatment that may not reach case conference thresholds but are serious nevertheless and merit the attention of a preventive service. It is not unreasonable to assume that the “false positives” referred to in this study could fall within this category.



- Traditional models of referral must continue to be used alongside so that the ‘false negatives’ can be picked up early. This is viable *only within the context of a sustained universal health visiting service* (e.g. 4 visits in Year 1). i.e. A universal service must remain in place. If parents are not forthcoming about risk factors the health visitor thinks (or knows) may be present, the health visitor might gently raise them with the parent or offer the additional support regardless (thus building the relationship).
- A 2-level model of assessment can help establish which 19 of the 176 are of the highest need (likely to have fewer protective factors that might prevent maltreatment). The model suggested by Professor Browne is to use Patricia Crittenden’s **CARE-Index**.
- The Index should be adapted for use by midwives starting in pregnancy.

> Instruments to help identify vulnerable children under age 5

Having built an initial profile of the birth cohort using the Index of Need, the next screening instruments we suggest making available for use are the **Parents Evaluation of Developmental Status (PEDS)** and the **Ages & Stages Questionnaire (ASQ-SE)**. Both instruments are among the three screening tools approved by the American Academy of Paediatrics. And just like the Index of Need, both instruments invite the parent to drive the screening process. The fact that the parent spends a great deal of time with their child makes them an expert partner in the screening process.

Parents Evaluation of Developmental Status (PEDS)

PEDS is a brief method for the early detection of developmental, behavioural and family issues. It consists of questions written for parents with basic reading skills. The answers are used to determine the child's support needs. Parents are asked these 10 simple questions:

1. Please list any concerns about your child's learning, development and behaviour.
2. Do you have any concerns about how your child talks and makes speech sounds?
Circle one: No Yes A little COMMENTS:
3. Do you have any concerns about how your child understands what you say?
Circle one: No Yes A little COMMENTS:
4. Do you have any concerns about how your child uses his or her hands and fingers to do things?
Circle one: No Yes A little COMMENTS:
5. Do you have any concerns about how your child uses his or her arms and legs?
Circle one: No Yes A little COMMENTS:
6. Do you have any concerns about how your child behaves?
Circle one: No Yes A little COMMENTS:
7. Do you have any concerns about how your child gets along with others?
Circle one: No Yes A little COMMENTS:
8. Do you have any concerns about how your child is learning to do things for himself/herself?
Circle one: No Yes A little COMMENTS:
9. Do you have any concerns about how your child is learning preschool or school skills?
Circle one: No Yes A little COMMENTS:
10. Please list any other concerns.

Scoring the PEDS is equally simple, taking just 5 minutes. The types and frequencies of parents' concerns lead to one of five *evidence-based* decision-making paths: whether to (1) refer, (2) screen further, (3) watch carefully, (4) counsel parents, or (5) simply reassure them.

If the 10 questions appear applicable to children across different ages, it is because they are applicable - the standard PEDS uses the same 10 questions for children regardless of age (birth to age 8). There is a modified version called the PEDS-DM that has developmentally-appropriate questions for each age group. This version can be used to supplement the

standard PEDS, particularly during periodic well-child visits (for instance, under the Child Health Promotion Programme). The PEDS-DM form for a child between 5 to 7 months of age looks like this:

Please tell us what your child can do. If you aren't sure, try it! Use the pictures if they help. If you need more help, ask us! And when you try these with your child, please say, "good try" or "way to go", even if it's not what you expected to see.

Please use the markers we gave you to fill the boxes below (not pen or pencil).

1. When your baby is holding a toy in each hand, does he or she look from one hand to the other?
No A little Yes
2. When you say things like "*Come here*", does your baby hold out his or her arms?
No Sometimes Yes
3. Does your baby "talk" or make speech sounds when he or she holds a toy or sees a pet?
No Sometimes Yes
4. If your baby is lying on her back, can she pass a toy from one hand to the other?
No Sometimes Yes
5. If you try to give more food than your baby wants, does he keep his lips closed or turn away?
No A little Yes
6. When you play gentle tickling games with your baby, does he or she enjoy this?
No/Haven't tried Sometimes Most of the time

The form also includes a brief story for the parent to read to the child as they sit in the waiting room. The story is about the interaction between a mother or father and a child of the same age as this parent's child. Since the story models attuned interaction between the mother/father and the child, it acts as a simple intervention for the parent.

PEDS has been shown to have a sensitivity ranging from 74% to 79% and specificity ranging from 70% to 80% across age levels. What does this mean?

Suppose we are screening for a problem that has a prevalence rate of 12% in the population (i.e. for every 100 children in the population, 12 suffer from this problem).

- 79% sensitivity means that nearly 10 of these 12 children will be correctly identified by the instrument as being at risk i.e. there will be fewer than 3 'false negatives'.
- 80% specificity means that 70 of the other 88 children who do not have this problem will be correctly identified as *not* being at risk i.e. there will be 18 'false positives'.

There is usually a trade-off between the two figures: the fewer the false negatives the more the false positives, and vice versa. The optimal balance for a community depends on the cost savings the intervention delivers: what the intervention and screening cost, the difference they make, and how that difference translates to a cost benefit.

Ages and Stages Questionnaire: Social Emotional (ASQ:SE)

The ASQ:SE is a screening instrument with a deep and exclusive focus on social-emotional behaviour. It is a simple low-cost tool used to identify infants and young children whose social-emotional development requires further evaluation and possible intervention.

The instrument consists of an age-appropriate questionnaire that parents are invited to fill-in. There are separate questionnaires for children aged 3 – 8 months, 9 – 14 months, 15 – 20 months, 21 – 26 months, 27 – 32 months, 33 – 41 months, 42 – 53 months and 54 – 65 months, and each takes just 10 to 15 minutes to complete. The number of questions in each questionnaire varies with age. For example, there are 32 questions in the **27 – 32 month** questionnaire. This is what the questionnaire looks like for this age group:

Please read each question carefully and 1. Check the column that best describes your child's behaviour 2. Check the last column if this behaviour is a concern	Most of the time	Sometimes	Rarely or Never	Check if this is a concern
Does your child look at you when you talk to him?				
Does your child like to be hugged or cuddled?				
Does your child cling to you more than you expect?				
Does your child greet and say hello to familiar adults?				
Does your child seem happy?				
Does your child like to hear stories and sing songs?				
Does your child seem too friendly with strangers?				
Does your child seem more active than other children her age?				
Can your child settle himself down after periods of exciting activity?				
Does your child cry, scream or have tantrums for long periods of time?				
Does your child do things over and over and can't seem to stop? Examples are rocking, hand flapping, spinning or _____. (you may write in something else)				
Can your child stay with activities she enjoys for at least 3 minutes (not including watching television)?				
Does your child do what you ask him to do?				
Is your child interested in things around her, such as people, toys and foods?				

When upset, can your child calm down within 15 minutes?				
Does your child have eating problems, such as stuffing foods, vomiting, eating non-food items or _____ ? (You may write in another problem)				
Do you and your child enjoy mealtimes together?				
When you point at something, does your child look in the direction you are pointing?				
Does your child sleep at least 8 hours in a 24-hour period?				
Does your child let you know how he is feeding with either words or gestures? For examples, does he let you know when he is hungry, hurt or tired?				
Does your child follow routine-directions? For example, does she come to the table or help clean up her toys when asked?				
Does your child check to make sure you are near when				

exploring new places, such as a park or a friend's home?				
Can your child move from one activity to the next with little difficulty, such as from playtime to mealtime?				
Does your child stay away from dangerous things, such as fire and moving cars?				
Does your child destroy or damage things on purpose?				
Does your child hurt himself on purpose?				
Does your child play alongside other children?				
Does your child try to hurt other children, adults or animals (for example, by kicking or biting)?				
Has anyone expressed concerns about your child's behaviours? If you check "Sometimes" or "Most of the time", please explain.				

Finally;

<p>Do you have concerns about your child's eating/sleeping behaviours or her toilet training? If so, please explain:</p> <p>Is there anything that worries you about your child? If so, please explain:</p> <p>What things do you enjoy most about your child?</p>
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These questions can be grouped into 7 behavioural areas – *Self-regulation, Compliance, Communication, Adaptive Functioning, Autonomy, Affect and Interaction with People*. Based on the answers provided, the administrator calculates a score. (Scoring takes 5 minutes.) The score is then compared to a normative score for children of that age. Depending on whether the score for this child is higher or lower than the normative score, next steps follow.

The instrument has demonstrated a sensitivity ranging from 71% to 85% and a specificity ranging from 90% to 98%. This means that for a problem with a prevalence rate of 12% in the population (i.e. for every 100 children in the population, 12 suffer from this problem), ASQ-SE can be expected to correctly identify

- Up to 10 of the 12 children who do suffer from this problem (i.e. 2 false negatives)
- Up to 86 of the 88 children who do not suffer from this problem (i.e. 2 false positives)

2.2 Process of implementing a screening programme in the community

Proff and Hamel (2002) suggest that committed leadership, a shared definition of the problem and goal, the involvement of services affected by change, and ongoing evaluation are all necessary ingredients to lasting change.

> Committed Leadership

There must be a respected champion for the change. This can be an individual or team within the borough that believes in the value of developmental screening, shares their enthusiasm with others, and is prepared to keep the change effort in the front of people's consciousness for the long haul. It is *essential* that the leader be well-regarded and centrally committed to the idea. This is the first thing to consider, for no matter how good an idea is, without committed leadership, nothing will happen.

> Shared Problem Definition

Once there is established leadership support for implementing a screening programme, the leader must help create a shared understanding of the need for change. We all know of situations where a committed leader pushes a change or idea forward, but his or her efforts are met with resistance because it was not a shared agenda. This forced approach at best slows a change process, and at worst mobilizes sufficient energies to resist and oppose the change. Furthermore, when the group that will be most directly impacted by the change shares a sense of the need for the change, the change occurs more quickly and smoothly. Time spent up front with those being impacted can help to assure that an appropriate understanding of the problem and goal are achieved.

In the case of developmental screening, the leader could begin by convening a discussion group in the borough to determine the current thinking about the importance of screening, identification of perceived barriers to routine screening, and the value of implementing something new. Ideally, if most members of the group acknowledge some importance in doing routine developmental screening, the next step would be to ask, "If we think it's important, why isn't it happening?" and "If it were to happen, what would it look like?" The ultimate outcome of this exploration would be a clear definition of the problem and the goal. This would lead to the next step of process planning.

> Process Planning

Process Planning is a way to envision the process of change in a detailed step by step way. It helps one map the course of action and activity to get from one point to another. It answers the question "What will it take?" Process Planning increases the probability that the right people are informed, prepared and involved at the proper time, and minimizes surprises that may be problematic later. Elements of Process Planning include:

Developing a refined, detailed description of the final goal

Examples: we want to use a screen at every visit to the GP, we need a screen that is family centered, is completed by the parent, takes less than five minutes to discuss with a parent and provider, involves minimal cost, has an easy protocol for responding to positive screens.

Identifying who (people, departments, roles) will be directly affected by the change.

Each person or group identified will possess particular expertise about their part of the change process and outcome, and should be involved at appropriate times in the process in a way that maximizes their contribution and minimizes wasted time.

Listing anticipated barriers and points of resistance and thinking these through ahead of time with relevant people.

In the case of screening, this may mean addressing: (1) physical barriers, such as providing a space for new forms and a mechanism to get forms from parents' hands to providers' charts in time, (2) concerns that providers will not know what to do when a child is identified as having a developmental delay, or (3) concerns that families feel they are already filling out too many forms.

Glascoc (1998) makes thirteen suggestions to help ensure a successful roll-out:

1. Prepare parents for screening in a positive way. When making phone calls or sending reminder letters about upcoming "well-child" appointments, explain in an encouraging manner that the visit represents an opportunity to view how children are coming along developmentally and behaviourally and to provide parents suggestions about addressing any difficulties children are experiencing. This should help families keep these critical appointments and better prepare them for screening.
2. For parents with expressed concerns for which additional screening or referral is the best response, prepare them by affirming the value of their worries and their careful observations of their child (e.g., *Your concerns are important and we need to look further at how your child is doing. This will help us decide whether additional help is needed.*)
3. Inform parents about the purpose for each test prior to administering screening tools. This should help ensure that parents understand what is happening and better prepare them for the results.
4. Use euphemisms rather than diagnostic labels when interpreting screening tests. Phrases like "*may be delayed*", "*may be behind other kids*", "*seems to be learning more slowly*", "*could be having difficulty learning*" are all terms which do not connote a child in a wheelchair or one with multiple genetic anomalies. They are effective terms but not devastating ones. They seem to encourage families to seek additional evaluations without causing paralytic fear.
5. Provide telephone numbers and descriptions of services. It is likely that families who have the necessary information to follow through are better able to do so. Descriptions of programs may enable families to visualize themselves participating and increase the chance they actually will.
6. Write non-medical recommendations on a prescription pad or on letterhead. This is a powerful tool for affirming the importance of a recommendation and encourages families to treat this as seriously as other medical interventions.
7. Offer ongoing support. Parents will often be faced with family members who have minimal investment in your recommendations for further evaluations and services. This

may be because they were not present during the original encounter and only hear the recommendation second-hand. It may also be a result of observing the problem but rationalizing its meaning, (e.g., *"his dad was just like that as a boy and he's doing fine now"...* *"It's just a phase, she'll grow out of it"*). One way to approach this is to help the parent who accompanied the child anticipate and deal with resistance. Acknowledge their fears and the likelihood that they will have a bout of wishful thinking (e.g., observing their child very carefully for signs that contradict delays). It is also helpful to invite parents to return with dissenting family members in tow so that you can re-explain your findings. Finally, you might let parents know that if they get "cold feet" and decide not to go that you want to be informed, (e.g., *"It's just as if I prescribed medicine and you decided not to give it to him, I'd want you to talk with me about it. Treat this prescription/recommendation in the same way. Don't be afraid to talk with me if you have reservations about following through."*)

8. Consider referrals to parent support groups or give parents the names and phone numbers of parents who successfully experienced the process of developmental/behavioural screening and diagnosis. This is particularly important for parents who are observably anxious or have numerous other life stressors. However, parents may not always reveal when they are distressed and it is probably best to have a uniform approach to offering parents on-going support.
9. Avoid giving screening results over the telephone. If this is not possible, alert parents that they may be confused and invite them to call back later if they have questions. This should reduce misinformation and resultant confusion and anxiety. Whether conveying results in person or over the phone, provide written information (e.g., a brochure about the referral source, a copy of the referral letter you write, etc.). This should help ensure that parents understand the results and implications.
10. Find social workers to help with families who are likely to have multiple barriers to following through with recommendations (e.g., single parents with low incomes and multiple life stressors).
11. Provide accurate written and verbal information. Communication about positive screening test results should clearly indicate that screens only tell whether a child is *more likely* to have a problems and that screens, while often correct, are not perfect: Children with true difficulties may not be identified and children who are coming along normally may fail a screen. Specifically, parents who raise significant concerns but whose children perform well on screening should benefit from being told that you will follow their children carefully and give them some suggestions about how to help in the interim (e.g., a parent education sheet on how to stimulate children's language). In this way, you have prepared parents for the possibility that screens may over- as well as under-identify difficulties, and you will have capitalized on a "teachable moment" by giving parents guidance in how to promote their child's development.
12. Be sure to follow carefully those children who fail screens but are not found to have problems. Most are performing below average and have many psychosocial risk factors. They need developmental promotion but also referrals to at-risk services such as Head

Start, quality day care, after-school tutoring, summer programs, and their parents may need training or social work services.

13. When children pass screening tests, offer praise and reassurance that learning and development appear to be coming along well. Also ask parents if there is information on child-rearing or behaviour that would help them.

Establishing a realistic timeline and target date

This should detail what needs to happen when along the way to reaching the final goal. (e.g., how long will it *really* take to select screening tools, pilot them, get feedback from families, and troubleshoot snags). Appendix B contains a screening implementation worksheet from the ABCD Project of the Commonwealth Fund.

Planning for both formative and summative evaluation

Opportunity for such planning should be included into the timeline of the process. Formative evaluation is an assessment of how things are going along the way. For example, if the goal is to institute the use of parent-completed developmental screening forms, seeking feedback from parents will provide important information regarding usability and satisfaction. Summative evaluation is an assessment of the degree to which the original goal has been met. Questions to address in the final evaluation include: Has screening resulted in better outcomes for children and families? Has it resulted in increased parent satisfaction? Has it taken more time for staff? Has there been increased identification and referral of children with developmental delays?

Used on a regular basis, instruments such as Index of Need, PEDS and ASQ-SE can be an effective way of following children's developmental pathway. Periodic "well-child" visits ensure that support needs are addressed early enough to prevent adverse consequences. Such a model would be more like a regular dental check-up than like an emergency room visit.

These screening instruments do not predict outcomes with certainty. What they can do is identify a group of children who are at higher risk than others. Because these screening tests are inexpensive, easy to administer and non-stigmatising, they can be used for every child in the community. For those sub-groups of children which the screening instruments identify as possibly being in greater need, further assessment by a trained professional would confirm whether this is indeed the case, and if so, which intervention or set of interventions would be best suited for these children and their families.

3. Towards a model of intervention that works

3.1 Interventions that potentially prevent poor outcomes

A number of interventions have demonstrated success in preventing poor outcomes for vulnerable children. This section briefly describes a range of such interventions, across three categories – intensive interventions for vulnerable families, interventions to develop community resilience and population-level interventions for universal delivery.

> Intensive interventions designed to facilitate change for at-risk families

Nurse family Partnership (NFP)

Selected health visitors are intensively trained to deliver this US-originated intervention. First time, underprivileged, unmarried teenage mothers receive an intensive dose of health visiting within a highly-structured educational and motivational programme. The programme starts before the 28th week of pregnancy and lasts until the child is 24 months old. A Unit of 4 health visitors manages a caseload of 100. This is roughly one-tenth of the usual caseload.

Multiple randomised control trials, over up to 15 years, show significant payback:

- 79% reduction in child maltreatment
- 56% fewer emergency room visits
- 81% fewer convictions for children over the period of adolescence.
- 83% increase in maternal employment within 48 months.
- 69% fewer arrests of the mother over the following 15 years.

The DoH and the DCSF are funding thirty pilots of this US-originated programme. WAVE considers this the best programme of its kind in the world.

First Steps In Parenting

First Steps is a 35-hour intervention for all expecting parents. The intervention expands the remit of antenatal care by integrating the emotional and relationship aspects of having a baby into a schedule that traditionally focuses mainly on the physical aspect of giving birth. This supports parents in developing healthy ways of communicating with their baby and with each other. The approach helps cement the father-mother bond during this sensitive and often stressful period.

Research (Parr 1996, 1998) shows that parents who attended First Steps were less anxious, less vulnerable to depression, derived more satisfaction from their relationships with their partner and their baby and were more confident as parents. Their babies were more likely to develop secure attachment; which is the basis for healthy development.

First Steps is highly recommended by senior directors in several children's charities in the UK, independent parenting researchers, and within the Department of Health. It is recommended by the Health Select Committee Report (1997), the 1998 report by the Expert Committee for the European Regional Council of the World Federation for Mental Health

and the Sure Start Guide to Evidence Based Practice (1999). It is included in the DoH Child Health Promotion Programme 2008.

Front Pack Baby Carriers

Recommended in reviews by both Communities that Care and Support from the Start, front-pack baby carriers are a very cheap and simple intervention. In a randomised control trial in the United States, after 3 months, low-income inner city mothers using front-pack carriers for their babies were more responsive to their babies than a control group with conventional baby seat carriers. After a year of use, 83% of infants in the front-pack group were securely attached to their mothers, compared to 38% in the group using the conventional baby seats. (Anisfield et al, 1990). While the latter (control) group is fairly typical of low-income inner city families, the former (experimental) group more closely resembles middle class families. This is an extremely inexpensive and effective way of significantly increasing bonding between parent and child.

Infant Massage

Infant Massage has had multiple interventions that show its effectiveness. Taragon (2004) cites a long list of benefits including emotional security, attunement and sounder sleep. One cross-cultural study (Prescott, 1975) is cited as evidence of violence reduction in the infants, later in life. Sutton and Murray (Support from the Start, 2004) recommend it for its beneficial impact on parent-child bonding. Field and colleagues (1986) showed improvements for pre-term infants in respect of weight gains, and reductions in cortisol (stress) levels and crying for pre-term infants, while parents reported decreased anxiety and depression. It is included in the DoH Child Health Promotion Programme 2008.

Mellow Parenting

Mellow Parenting is a 14 week one-day-a-week group designed to support families with relationship problems with their children under 5. It combines personal support for parents with a video and direct work with parents and children on their own parenting problems.

It has proved effective in recruiting and engaging families with severe problems. An evaluation by the DoH has shown that compared with other parenting programmes run in family centres, Mellow Parenting improves mother child interaction, child behaviour problems, maternal well-being and confidence in parenting and children's language and non-verbal abilities. These changes were sustained over an 18-month follow up.

The intervention is recommended as an effective evaluated programme by the Sure Start 2005 Practice Guidelines, and by the new DoH Child Health Promotion Programme.

Family Check-Up Programme

Modelled after the Drinker Check-Up, this is a US-originated intervention that is designed to help parents manage the changing relationship with their toddlers better. It comprises of a series of tailored interventions delivered at key points during the "Terrible Two's", to help the parent manage common toddler problem behaviours in a positive way. The FCU programme studies the degree of parent involvement in the child's activities, the support and reinforcement of positive behaviour, the duration of time in which the parent engages with

the child, and the degree to which the parent anticipates potential problems and then seeks to prevent them from happening. The parents are given feedback on where they are doing well and where they could do even better; and are offered support in the form of coaching sessions (up to 6) to improve relating with their toddler.

Studies (including one RCT of 731 high-risk families) showed improvements on all indices of positive parenting and children's early problem behaviour.

Circle of Security

This is a 20-week group-based parent (or caregiver) educational and psychotherapeutic intervention. It is designed to shift patterns of care giving interactions in high-risk parent-child pairs to a more appropriate developmental pathway. The programme uses edited videotapes of parent interactions with children to encourage parents to develop sensitive and responsive relationships with their children. Preliminary evaluation findings have been positive (Marvin, Cooper; Hoffman and Powell, 2006): the programme has been found to significantly increase secure attachment. The US Department of Health and Human Services has designated this as a "Reported Effective Program" to tackle child maltreatment. It has been replicated in Australia, Norway and Canada and is under consideration in a number of other countries including the UK.

Incredible Years

Recommended by the Blueprints Model Violence Prevention Programmes, Support from the Start and Communities that Care, Incredible Years is a well-known intervention designed to promote emotional and social competence and prevent, reduce, and treat behaviour and emotion problems in young children (aged 2 to 8). A number of studies including RCTs have shown that the programme improves positive and nurturing parenting styles, decreases harsh, inconsistent and unnecessary discipline, decreases child negative behaviour such as aggression and disruption and increases conflict management skills, school readiness and academic engagement.

Video Interactive Guidance (VIG)

VIG uses short clips of video to identify the strengths of those involved, to enable them to observe, analyse and then change their behaviour. The intervention is versatile and can be used across age ranges (from babies to adults) and different settings (educational psychology, social work, CAMHS, schools). It is a Dutch intervention that is now widely used in the UK and several European countries. Video feedback as an intervention mechanism has been embedded within other effective interventions such as Mellow Parenting, Circle of Security and the Sunderland Infant Project.

> Interventions designed to create/strengthen support networks in the community

Family Group Conferencing

Family Group Conferencing (FGC) is a means of involving family members, including extended family and friends, in planning support for children about whom concerns have been expressed in relation to their safety or well-being. It is a model that is increasingly being used in the Social Care setting in the UK. A meeting is set up at a location determined by the

family. An independent coordinator speaks with key relatives, supporters and friends identified by the parents and children, inviting them to the meeting. After reviewing the purpose of the meeting with this ‘extended family’, the professional withdraws and gives the group private time to work out a plan of support for the child/family in question.

This model of working has been proven to engage the extended family (Barnsdale and Walker, 2007). If deployed consistently across the community (including within the voluntary sector), it could strengthen community networks and reduce service dependency.

Local Area Co-ordinators

Communities grow stronger as families develop networks to support each other. In addition, many communities in the UK are fortunate to have a well developed voluntary sector. Together, these form a resource that could be better leveraged to achieve good outcomes for these families.

Areas in Western Australia (and more recently Scotland) have introduced the role of “Local Area Co-ordinator” to develop a detailed understanding of services in the community and act as a bridge between certain individuals (such as the disabled) and services available. Such a person develops a good understanding of the families in the area who need additional support, as well as of organisations (both statutory and voluntary sector) – and even individuals – who might be able to help.

We would recommend the creation of Local Area Co-ordinator posts to ensure vulnerable families are tapping into the network of community resources available.

Parent Consultants

Parents are a key group to engage, in a structured manner, within the local community’s service delivery framework. We have seen many examples of good practice around the country. Local mothers are being trained to be doulas in Hull, or to run breastfeeding support groups in Solihull. Parents are represented on Sure Start Boards in Birmingham. Parents in parts of London are being trained to educate others in relation to drug use.

Each of these form part of a broad suite of services that parents can be trained to deliver across Children’s Centres. For example, the FSA Parent’s Guide To Money (now a universal offer to all expecting parents) is an extremely useful tool that has the potential to transform a family’s experience of a new birth from one of financial stress to one of greater preparation. However, it requires a degree of literacy and familiarity with numbers that may be daunting to the population who would benefit from it the most. Selected parents could easily be trained to pass on the knowledge in this tool. Parents can be trained to coordinate Family Group Conferences, to be Local Area Co-ordinators, and to recruit parents into, and possibly – eventually – even deliver, parenting programmes.

The National Academy of Parenting Practitioners (NAPP) conducts courses in training parents to be Community Consultants (to *research* the needs of other parents, to *represent* those needs and to *recruit* parents into activities such as parenting courses. We recommend such courses for consideration.

Life-long Learning Projects

Parental interest in and engagement with their children's learning process has been shown to be a crucial factor in children's educational performance. However many parents, especially the more vulnerable ones, have negative memories of their own experiences with school and learning. They may feel they have failed educationally, and this may hamper their developing an interest in their child's educational achievement. They may lack the confidence to take an active interest in what is happening at school.

There are examples of approaches that have worked to shift parental attitudes to learning, even in high-need areas. One such example is the strengths-based, needs-led Bromley Children's Project (Davis, 2005). Family Support Workers consult primary school parents (especially Reception Class) on the kinds of learning opportunities they would enjoy. Courses were structured in 4 stages. The first stage offered courses such as aromatherapy and cooking – although difficult to fund, activities in this stage formed the crucial foundation on which the other stages were built. Parents progress to courses in literacy, numeracy and computer skills. As much as 30% are reported to eventually take vocational or higher education courses such as book-keeping, crèche management and classroom assistance.

The priority for this Project was to help parents feel confident and competent in themselves and their parenting role, rather than working directly with the children. Although outcomes for children were not measured, the assumption was that children would be happy, confident and productive if parents are happy, confident, have friends, and are involved in their child's education. This assumption is supported by research (Desforges, 2003; Alexander, 1996).

Group Antenatal Care

Group antenatal care provides an integrated approach to antenatal care. It is conducted in a group setting and typically incorporates family engagement, the provision of peer support and educational initiatives (Rising *et al*, 2006). For example, **Centering Pregnancy** is a model of group antenatal care developed at the Yale School of Public Health that has since been replicated in over 100 clinical practices in the United States and abroad.

We recommend the group care model for consideration for several reasons:

- In an RCT of 1047 pregnant women aged 14 to 25, funded by the US National Institute of Mental Health, women in the Centering Pregnancy programme were 33% less likely to have a preterm birth, had significantly better antenatal knowledge, felt more ready for labour and delivery, had greater satisfaction with care, and were 20% more likely to initiate breastfeeding. (Ickovics et al, 2007)
- Women receive 10 times more contact time with almost no added cost. And since the group meets for 2-hour sessions at a time, other professionals can be present. This can lead to significant public health benefits.
- Women participate in a model of empowerment e.g. they measure their own blood pressure. Such models reduce the professional-patient divide.
- A strong “group effect” is reported to continue after birth, strengthening community links.

Interviews with Consultant Midwives suggest that the programme could provide similar benefits if implemented in the UK.

> Interventions for deployment across the entire population

Models that predict future outcomes (e.g. gang membership and associated violence) are considerably most effective when embedded within a universal framework.

As a case in point, consider families assessed for child maltreatment using the *Index of Need* (described separately). In one study, 67% of families who went on to case conferences for child maltreatment by the time the child was five years old had been accurately identified as 'high risk' at the time of the birth of the child. This is a successful outcome. The scoring was repeated at the time of the case conference, and the result was the same: the score was high.

However a further 27% of such families, although correctly classified as 'high risk' at the point of the case conference, had been classified as 'low risk' at the time of the birth of the child, using the same screening instrument. The same families had higher risk scores at the later stage – partly because their situation had changed, and partly because more information about their situation had become available (Browne, personal communication). Without a universal service, these families may have been missed. A universal service ensures that risk assessment takes place on an ongoing basis.

We therefore suggest that a hybrid strategy is important to ensure the efficacy of a targeted strategy. We recommend considering two population strategies, targeting domestic violence and poor parenting. These are not the only risk factors for poor outcomes, but they are important ones and there is some evidence that they can be tackled using a population-wide approach. These are discussed below.

Domestic Violence

Domestic violence (DV) and child abuse are causes and consequences of each other. Depending on the prevalence of DV in the community, a population strategy such as Western Australia's **Freedom From Fear** campaign may be worth considering. This was a long-term social marketing exercise that started in 1998 and uses media advertising (television, radio, press) to call on DV perpetrators (and those at risk) to accept responsibility for their behaviour and take action to end the abuse.

Crucially, the campaign uses, as its key strategy, **education about the effect on and damage to children** because it **was universally seen as a very powerful deterrent by perpetrators** (Gibbons and Patterson, 2000):

- All surveyed perpetrators expressed strong feelings for their children (few expressed any fondness for partners).
- Their children's reactions to specific instances of DV had a very vivid impact on many perpetrators.
- Many perpetrators could relate to their own feelings when they were children. Some talked about how DV had affected them as children.

The second major component of the campaign is a Helpline that provides counselling, information and referral to assist and support men in ending the abuse. 3 key messages are delivered over the helpline – and indeed throughout the campaign. The 3 messages are:

- Domestic violence is a serious problem.
- It has negative effects on children.
- Specific help is available.

The help that is offered is a counselling service delivered in the first instance over the telephone, but with the goal of ensuring attendance at a no-fee community counselling programme.

For the counselling component of the campaign we recommend the DV intervention developed by Professor **Donald Dutton** at the University of British Columbia. This intervention addresses the psychological underpinning of abusers. In a 5-year follow-up, 82% of those who completed the programme did not re-offend (Dutton, 1998).

Evaluations on effectiveness show significant increases in public understanding that DV affects the whole family including the children (from 21% to 66%) and awareness of where to go for help (rose to 37%). A 2006 review supported continuing the campaign and identified as a priority the development of measures to evaluate the campaign's impact on actual prevalence of DV (Wood and Leavy, 2006).

Parenting

Parenting has been shown to impact on a range of outcomes. Barlow (2008) includes teenage pregnancy (Scaramella et al, 1998); unhealthy eating (Kremers et al, 2003); smoking (Cohen et al, 1994); alcohol misuse (Garnier et al, 1998; Eglund et al, 1997); poor educational achievement and school drop-out (Desforges, 2003). Other areas of impact are behaviour problems, delinquency, criminality and violence (Patterson et al, 1989; Farrington, 2003; Hosking and Walsh, 2005); and mental and physical health (Nurse, 2008; Anda et al, 2006).

Yet poor parenting is strikingly common. Nobes and Smith (1997) reported that 52% of their sample of parents with babies under 1 year hit/smacked their babies at least once a week. Given the importance of parenting, it stands to reason that training to be an empathetic and attuned parent should be universal. The real question is how we can make this happen in a meaningful way. Here are three possibilities:

First, roll out **First Steps in Parenting** (recommended by the 2008 Child Health Promotion Programme) as a course for all expectant parents. **Fix appointment dates at the first meeting with the midwife**. Maintain the same expectation of attendance as is the case for midwifery appointments, presenting it in a way that matches its importance. Telephone first-time parents to ensure attendance - thus creating a relationship pre-birth.

Second, introduce development-related newsletters for new parents. Newsletters such as **Baby Express** and **Toddler Express** can improve parenting practices across the population. These short, easy to read and useful newsletters are sent to parents at regular intervals (age-paced). Parents who receive the newsletters demonstrate increased awareness of child development, and report smacking their children less often after reading the newsletters.

Third, introduce a parent training programme such as **Roots of Empathy** in primary and secondary schools across the borough. Roots of Empathy is a hands-on programme that takes a baby into a classroom to teach the children empathy and attunement. It not only protects the next generation, by teaching future parents ways to foster empathy in babies, it also reduces bullying in schools. Children who may not have received attuned parenting (and so are not primed to deliver it to their own children in the future), spend nine months in close contact with a relationship of attunement and empathy between a real live baby and its competent, loving parents. This may transform their ability to parent, and is intended to break the cycle of violence by teaching children about the importance of love for the development of a healthy infant brain.

Studies show Roots of Empathy reduces bullying and raises levels of pro-social behaviour. It may boost the impact of SEAL (Social and Emotional Aspects of Learning) in this regard.

Intervention models by themselves may not be effective. In order to ensure our intervention achieves the outcomes we are looking for, there are seven principles to build our practice on.

3.2 The 7 principles of effective delivery

With the best of intentions, large sums of money can be wasted. The national evaluation of Family and Parenting Support in Sure Start Local Programmes (SSLPs) concluded that “the provision of family and parenting support in SSLPs varied widely, from very good work to inadequate practice”; that “Many SSLPs developed their own parenting programmes... no guarantee of effective outcomes” and “Much more training is needed” (Barlow *et al*, 2007).

Harvard’s Early Childhood Development Institute succinctly states: “**Programs that cost less because they employ less skilled staff are a waste of money** if they do not have the expertise needed to produce measurable impacts” (Harvard CDC, 2007).

Quality control is a crucial issue. It is the ‘glue’ that holds the framework together. We make seven suggestions to guide work with all families, but especially those at Level 3 or Level 4:

> Measure hard outcomes

Outcome measurement is central to this work: identifying suitable outcome indicators for each age-group is advised. Examples of outcome indicators include the % of at-risk children who show up for their developmental review at age 2, the % of children who meet developmental milestones within a suitable window of time, EYFS scores at age 5, the number of children on School Action or Action Plus for behavioural reasons, levels of bullying in school, the extent of truancy or exclusions and the number of first-time entrants to the youth justice system. We would expect the proposed approach to deliver strong improvements in many/all the indicators.

> Use proven interventions

Replicating the success of evidence-based interventions is challenging enough: the evidence is **not** in favour of home-grown interventions. A selection of evidence-based interventions that span the period of childhood have been described. This list represents the interventions we find to have the best evidence base and/or the best support from experts in preventive science. It should be noted this is not an exhaustive list and there may well be other interventions with a good evidence base. The point we are making is that the interventions we commission must have a good evidence base and/or strong theoretical support.

> Maintain programme fidelity

Some degree of adaptation will be required when replicating evidence-based interventions. Interventions developed and tested in one community may need to be adapted if they are to work equally well in another community. In addition, staff need to have a sense of ownership to ensure success. There will thus be both a need and a drive to localise interventions. In the process of doing so, crucial elements of the intervention may be lost. We therefore recommend that localisations be developed in close consultation with the programme originators. In addition, ongoing technical support (e.g. training) by the programme originators (or their direct licensees) should be factored into budget considerations.

> Define the helping model

Practitioners tend to have their own individual styles of working with families. This can lead to a wide variation in quality. Explicit helping models have been developed to address this issue. Models such as the **Solihull Approach**, the **Family Partnership Model**, and **Motivational Interviewing** can go a long way in raising overall quality. These are described below. We recommend staff are trained in one of these models.

Solihull Approach

The Solihull Approach is an integrated model of working with families, babies, children and young people who are affected by emotional and behavioural difficulties. It is an early intervention model and is also used for prevention and group work. The model is built around three concepts: *containment*, *reciprocity* and *behaviour management*.

Developed in 1996 by joint working between Health Visitors and Psychotherapists in Solihull, the approach was initially used by Health Visitors to work with families where children had feeding, sleeping, toileting or behaviour difficulties. The approach has since been modified for wider use. Professionals in over 100 areas across the UK, across a range of agencies such as Social Care, Health Visiting and Youth Offending, have now been trained in the Solihull Approach to working with families.

Several small-scale studies of the Solihull Approach have been carried out. One effectiveness study suggested the approach reduces parental anxiety by 66%. This way of working with families has been recommended by the DoH Child Health Promotion Programme 2008.

Family Partnership Model

The Family Partnership Model training is an internationally recognised, evidence-based programme that helps 'helping professionals' to examine and improve their everyday approach to partnership working. The model is based upon an explicit framework that integrates the use of core helping skills and qualities with the processes of a goal orientated approach.

The approach has been used by practitioners from all disciplines (e.g. paediatrics, nursing, child care, teaching, social work, volunteers) in services relating to child and adult disability, chronic illness, child mental health problems, educational special needs, and the prevention of psychosocial problems, including abuse. Research findings and routine practitioner feedback strongly suggest that the Family Partnership training programme is valued by participants and enables them to feel more confident and competent in engaging and working in collaboration with parents. Several studies have shown improved accuracy in workers' identification of family needs and significantly improved parental satisfaction with the service they provide. This is important, since improvements in early identification are necessary before improvements in early intervention can take place.

Studies, including randomised trials, have shown significant improvements in the psychosocial functioning of parents and in the development and well-being of children as a result of working with practitioners trained in the Family Partnership approach. Current research in Oxford is using the model with vulnerable mothers in a longitudinal study into the prevention of child abuse and neglect. The model has also been used in an international, multi-centred research trial in Cyprus, Finland, Greece, Serbia and the UK (The European Early Promotion Project) to implement and evaluate a universal service to promote family adaptation and the health, development and well-being of their infants.

Motivational Interviewing

Motivational interviewing is a directive, client-centered counselling style for eliciting behaviour change by helping clients to explore and resolve ambivalence. Compared with nondirective counselling, it is more focused and goal-directed. The examination and resolution of ambivalence is its central purpose, and the counsellor is intentionally directive in pursuing this goal. The key point is that the motivation to change is elicited from the client and not imposed: it is the client's task and not the counsellor's to articulate and resolve his or her ambivalence. Like the Solihull Approach and Family Partnership Model, Motivational Interviewing is about a partnership between the counsellor and client; rather than expert/patient roles.

While the concept of motivational interviewing evolved from experience in the treatment of problem drinkers, it has been expanded for use in a wide range of settings and has been extensively researched. It has been used by midwives to help pregnant women stop smoking, by counsellors to help drug addicts quit their habit, and by probation staff to help probationers give up a criminal lifestyle.

> **Be selective about staffing**

Regardless of the training being delivered, there is a need to ensure that staff are selected based on their capacity to develop relationships with families who may be, for a variety of reasons, highly cynical of and resistant to engaging with services.

> **Integrate structured supervision into working practice**

There is a need to see structured (e.g. fortnightly) supervision as a corner stone of effective working. A lack of effective supervision undermines the effectiveness of any intervention, regardless of its evidence base. It is important to note that line management is not the same as good quality supervision.

Supervision enables practitioners to examine their practice, their skills, knowledge, attitudes and values in a safe environment. Practitioners are supported in continually improving their practice. They take greater ownership and responsibility for their work. Supervision sessions include discussions on a wide range of work-related topics such as detailed case discussions, the supervisee's experience of and feelings about work and continuous professional development. All members (but especially team leads) would benefit from such supervision. We recommend that the supervision function be provided by specially selected staff who receive further training in this role.

> **Conduct small-scale pilots**

The impact of this proposed approach should justify the investment it calls for. **We recommend that small-scale 3 to 5-year pilot projects are run to study the impact of any intervention schedule.** Crucially, measurement should be central to the pilot, with tightly defined outcome indicators for each age-group. A control group study would be preferred. It is important to engage the Local Strategic Partnership from the onset of the process, so that a successful pilot results in a smooth transition to wider roll-out.

References

References are available on request. Please email bpillai@wavetrust.org with the specific reference you require.

Appendix A

The following appear to be the salient risk factors correlated with serious delinquency. It is important to note that correlation does not imply causality: these risk factors are most useful when seen as early markers of a (potential) future problem. It is also important to note that these risk factors are markers for a range of poor outcomes, beyond just gang membership.

Such markers can be divided into 3 categories – environmental, family and individual.

> Environmental Markers

Community disorganisation

The influence of community disorganisation on future delinquency varies significantly across developmental periods. This indicator includes the availability of drugs and firearms in the area (Maguin et al., 1995), adults involved in crime and gang activity (Elliot, 1989), and the absence of prosocial, structured and supervised activities (Bursik and Grasmick, 1993). The influence of this factor while direct in the adolescent years, is mediated through the family in the developmental years.

Exposure to toxins

Lead, cadmium and manganese have been identified to have a negative effect on the foetal brain. Studies have identified an indirect relationship between toxins and violence, through the mediating variable of impaired intelligence. A prospective study found bone lead levels at age 7 related to aggression and delinquency at age 11 (Needleman et al., 1996). Another study found umbilical cord blood lead levels to be related to IQ scores at age 2, and blood lead levels at age 2 to be related to IQ scores at age 10 (Bellinger et al., 1987).

Exposure to violence

Violence within the environment (outside of the child's home) influences the developing child both directly and through the mediating influence of the family (Durant et al., 1994). In the most extreme form violence in war-torn region can lead to post traumatic stress disorder, a major factor in maintaining the cycle of violence. The level of violence in the media is generally thought by researchers to exert a low to moderate influence on aggression and violence in children and youth (Reiss and Roth, 1993).

> Family Markers

Parental history of mental illness

The exact epidemiological relationship between parental mental illness and child's future antisocial behaviour is as yet unclear, but there is a sound justification for a genetic or early experience influence on behaviour (Carey and Goldman, 1997). Mental illness is broadly defined to include mental illnesses, personality disorders and substance abuse disorders. Maternal depression for instance is related to child maltreatment especially neglect, which has been shown to increase risk of conduct disorder (Whittaker et al., 2006).

Antisocial practices/attitudes in the family

A wide range of studies suggest that, regardless of a genetic component, children learn antisocial behaviours including violence from their parents. For instance parental tolerance towards violence at age 10 has been shown to predict self-report violence at age 18

(Manguin, 1995). Parental criminality is a primary factor related to the child's later involvement in offending (Farrington, 1989). The UK Cabinet Office suggests that 63% of male children of offenders go on to offend (MoJ, 2007).

Family socio-economic status

Family socio-economic status has been notoriously difficult to isolate from the factors that usually accompany it and which are covered in the rest of this list (Reppucci et al., 2002). What does appear to be the case however is that the risk is driven by the financial strain the family experiences and the impact this has on their child-rearing practice. Thus the impact of poverty is often amplified within communities where there is limited support, prejudice or structural inequalities (US Department of Health and Human Service, 2001).

Domestic violence

Children exposed to high levels of family conflict and violence have been shown to be at increased risk of becoming involved in aggressive and violent acts (Farrington, 1989). There is a general consensus that abuse and neglect experiences (the latter more than the former) contribute to the development of violent behaviours (Smith and Thornberry, 1995). For young children this is now thought to take place through neurological mechanisms i.e. at the physiological level (Hosking and Walsh, 2005).

Maternal substance use

Maternal substance abuse has been shown to have a direct impact on the foetal brain (Conry and Fast, 2000). It is a factor that predicts conduct disorder at age 3 and future antisocial behaviour (Whittaker et al., 2006).

Mother or partner under 21

Teenage pregnancy has been found to predict many poor outcomes for the children, including delinquency (Morash and Rucker, 1989). On balance the research suggests that the common factors associated with being a teenage parent – such as lack of financial and emotional support, inadequate parenting skills and being a single parent – are the drivers of adverse outcomes, rather than being young *per se* (Fergusson and Woodward, 1999).

Parental coping ability

This factor relates to the parents' ability to ameliorate the stress factors in the environment and deal with them in a successful manner. It is related to other factors such as parental mental illness, unemployment and family support, but is also indicative of the capacity of the parents to problem solve and leverage existing resources to function effectively within the given environment (Hawkins et al., 1998).

Parental education and IQ

Low parental educational level and IQ are closely related to socio-economic levels and are an indirect influence on the development of violent behaviour in offspring. It is thought to be due to the inability of low IQ parents to assist their children with schoolwork, and reduced decision making and coping ability within what is likely to be a complex and difficult environment (US Department of Health and Human Service, 2001).

Family supports

If parents feel socially isolated or perceive a lack of social support from families or friends, there is an increased risk that the child will be neglected or abused (Egeland et al., 2002). A strong social support network on the other hand acts as a protection against various other risk factors and may help break the cycle of violence. The quality of social support is considered to be more important than the quantity (Augimeri et al., 2001).

Residential mobility

Cohort studies have shown high levels of residential mobility amongst juvenile offenders (Corrado et al., 2001). This factor may service as a proxy for the presence of a turbulent environment, poor family dynamics and the absence of a support environment. The earlier the age at which the child leaves home the stronger the prediction of later violence (Farrington, 1989). The type of residence is of significance – for instance movement in and out of foster homes compared to movement with the family, within a community. Groups that score highly on the residential mobility indicator include travellers, asylum seekers, refugees and the homeless.

Single-parent family

Being raised in a single parent family has been shown to be predictive of involvement in serious violence (Henry et al., 1996).

Ineffective parenting

There is a large body of research that links ineffective parenting practices with violent behaviour (Reiss and Roth, 1993). Such practices include a lack of parental involvement, early rejection or neglect, harsh or permissive methods of parenting and inappropriate parental expectations. Maternal warmth on the other hand has been found to buffer against aggression (Deater-Deckard et al., 1998).

Early caregiver disruption

Children separated from their parents at an early age have been found to be at higher risk of becoming involved with violence in later years (Farrington, 1991). Separation can be a proxy for variables such as substance abuse and residential mobility. The quality of support the child experiences in the new environment is a factor to consider alongside.

Parent-child attachment

The formation of an insecure attachment to the infant's primary caregiver has been found to predict violent behaviour in adolescence (Erickson et al., 1985). Parental neglect and abuse has also been found to have this effect. Interestingly a strong bond in adolescence between parent and child elevates the risk of offending if the parent has antisocial attitudes (Hawkins et al., 1998). Hence the impact of parent-child attachment relates both to the quality of the bond as well as to the characteristics of the parent.

> Individual Markers

Low Resilience

In any given study there are a significant number of children who experience harsh and adverse conditions but who do not develop disruptive or self-harming behaviours. Some have clearly visible external protective factors. For others there appears to be an internal

protective factor. There is evidence to believe that there may be a genetic component to this internal protective factor. Those who do not possess resilience are less able to cope with adverse effects as they arise (Augimeri et al., 2001).

Complications at birth

Although still an unclear area of research, a combination of pre- and perinatal insults with social risk factors has been found to have a synergistic effect in contributing to a pathway of violence. For instance the combination of obstetrical complications with early childhood rejection (institutional care, attempt to abort, unwanted pregnancy) has been found to be predictive of criminal offending at age 19 (Raine et al., 1994).

Genetic component

High levels of monoamine oxidase (MAO) activity can be a protective factor. For children not subjected to maltreatment the level of MAO activity has no influence on future violent offending. However when children are subjected to serious levels of maltreatment, high levels of MAO activity protect children and they are less likely to become antisocial themselves. Low levels of MAO activity on the other hand increases the risk of future antisocial behaviour amongst maltreated children (Walsh, 2008).

Chronic under-arousal

Under-arousal (low levels of fear, need for stimulation) has been shown to predict antisocial behaviour (Raine, 1997). While research on the psycho-physiological origins of antisocial behaviour has not been explored as extensively with children as it has with adults, heart rate, skin conductance, EEGs and the startle blink reflex are proposed as suitable indicators. Such measures have been shown to have predictive value as early as age 1 (Peterson et al., 1982).

Cognitive delays

Cognitive disorders, like executive dysfunction, are the result of brain impairment (though on the left hemisphere of the cerebrum). For instance language deficits are thought to contribute both directly and indirectly to serious offending. Signs of these deficits emerge in the toddler age, are often co-morbid with ADD/ADHD and exhibit stability of aggressive behaviour into the teenage years (Moffitt and Silva, 1988).

Appendix B

> Screening Implementation Worksheet

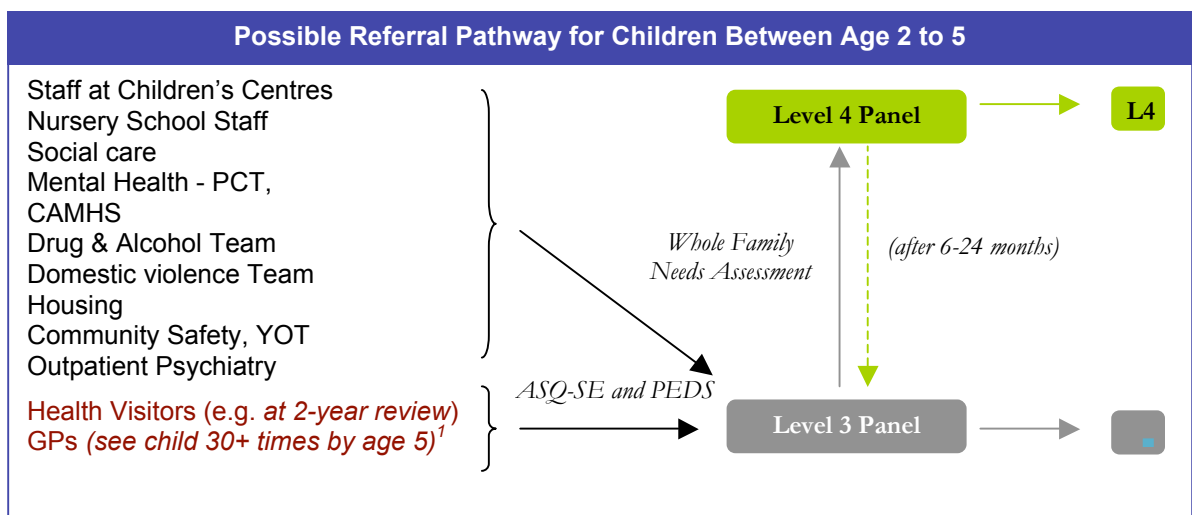
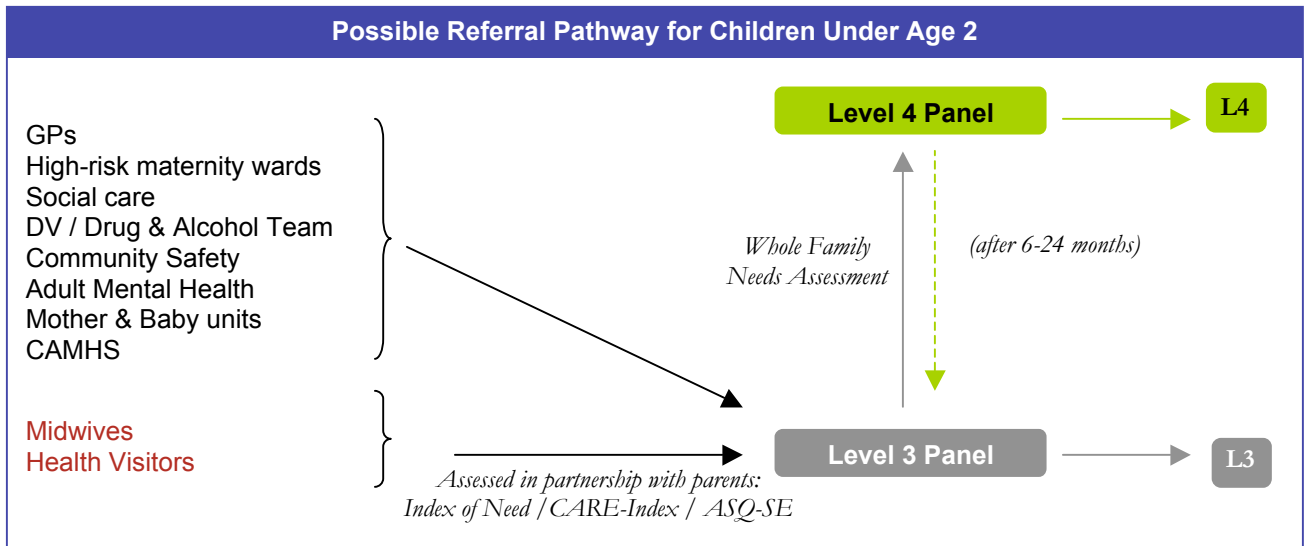
These can be a starting point for thinking about the implementation actions within your borough.

Action Item	Time Frame	Person(s) Responsible	Date Completed
1. Who will ensure that copies of screens are available each day for parents to complete?			
2. Who will ask whether parents can complete the forms on their own or need assistance?			
3. Who will help parents who need assistance?			
4. Who will collect screens from families?			
5. Who will score screens?			
6. Who will attach screens to the chart or otherwise make sure they are available to clinicians?			
7. Who will locate patient education materials and referral resources? Who will follow up if needed? How will this person know when to follow up?			
8. Who will explain results to families?			
9. Who will contact referral resources when a referral is needed? Who will locate referral resources when needed?			
10. What will you do with the screening materials once they've been discussed with families?			
11. If using electronic records or age-specific encounter forms, who will indicate and where, the fact that screening has been completed?			
12. Who will lead staff through your rationale for deploying validated screening in your practice and otherwise inspire them about the value of screening?			

Appendix C – One Possible Pilot Design

> Suggested project board membership

- Early years / Children's centre
- Health visiting, Midwifery
- Children's social care
- Adult services / Adult mental health
- Housing
- Community safety / Police / Youth Offending



¹ Hospital Episode statistics and Information Centre for Health and Social Care, July 2007