Discussion Paper – Embedding Infant Mortality into Local Partnerships across Lancashire

Purpose

The purpose of this paper is to inform the Board of the current issues in reducing infant mortality across the County of Lancashire. The paper is solution focussed and despite the challenges suggests recommendations on moving forward to achieve a rate that is more in line with the national average.

Introduction

The reduction of Infant Mortality is one of five Starting Well priorities for the Lancashire Health and Wellbeing Board. The Children and Young People's Plan is a key mechanism for the delivery, impacts and outcomes of the Starting Well theme of the Health and Wellbeing Strategy, under the governance of the Lancashire Children and Young People's Trust Board. In September 2014, a paper was presented to the Lancashire CYP Trust Board giving an overview of an approach to preventing infant mortality across East Lancashire and Blackburn with Darwen (Pennine Lancashire). This is based on a recent refresh of legacy work from the former East Lancashire Primary Care Trust's Saving a Million Years of Life (SMYL) Programme. The approach taken in Pennine Lancashire is regarded as good practice and the CYP Trust Board now wishes to consider similar work across the County and its associated impacts.

This discussion paper aims to support decision makers in considering an approach to scaling up infant mortality prevention activity within existing resources. Impacts can be easily measured by local intelligence such as Infant Mortality Rates (IMR), effective use of the robust evidence to inform action and consideration of associated risk factors involving both children and adults. The ultimate aim is to achieve demonstrable improvement over a shorter time; scaling up activity by embedding it across existing Lancashire Partnership structures.

The historical and current picture

Reducing Infant Mortality has been a major challenge for Lancashire for some time. It is a sensitive measure of the well-being of infants, children and pregnant women. The Infant Mortality Rate (IMR) has long been regarded globally as an important measure of the health of a community. It is found by calculating the number of deaths in infants under the age of one as a proportion of the number of live births in the same population during the same time period – usually a year. The IMR includes those babies that were alive at birth but did not survive long enough to reach their first birthday; it does not therefore include stillbirths or terminations. The death rate for a small but significant proportion of our infants is consistently higher than the national average. In Lancashire on average, 70 of our infants die each year before reaching their first birthday, which is clearly unacceptable. Although the rates are steadily declining, this is not at the speed or intensity that we would expect in a developed country like England and when compared to similar areas nationally. There are

historical geographical variations with unacceptable health inequalities which see babies of families from the most disadvantaged groups in our communities being more likely to die before their first birthday than those in least deprived communities.

Looking back over the last 10 years (Appendix 1), following the national trend, the County IMR has steadily improved from 5.8 per 1000 live births in 2002/04 to 4.8 in 2010/12. This is in comparison to the England IMR which reduced from 5.2 per 1000 live births to 4.1 during the same time period. If we look at East Lancashire where the rates have been historically high, and therefore contributing negatively to the overall Lancashire picture, there have been positive signs of improvement in more recent years which can be attributed in part to the SMYL Programme activity. For example Pendle, which at one time had the highest rates in the Country, is now no longer in that unenviable position. At its worst, Pendle had an IMR of 9.7 per 1000 live births in 2003/05 and following a steady decline the current rate is 6.3 (2010/12), reducing from 6.7 in the previous 3 year period. This figure is also no longer statistically significantly different against the national rate. Hyndburn has also seen a significant reduction in its IMR in recent years, improving from its worst rate of 8.1 per 1000 live births in 2004/06 to 4.4 in 2010/12.

Burnley however is of most concern. The borough has not seen the same impact and is currently statistically significantly worse than the national rate. Burnley's IMR was at its best in 2004/06 at 5.2 per 1000 live births but it has steadily worsened year on year since then. The current rate is 6.9 per 1000 live births. We could considerably improve the Lancashire picture if we put additional effort into looking at outliers like Burnley (proportional universalism) whilst keeping the trend moving downwards in all 12 districts. Other boroughs outside East Lancashire which are worthy of additional effort are Preston, South Ribble, Fylde and Wyre. Infant Mortality Rates in these boroughs are not statistically significantly different from the England average but they are all negatively increasing.

Opportunities for achieving improvement

A strong evidence base shows that the preventable elements of infant mortality are complex, linking more to the lifestyle, environment and behaviour of adults than children. This includes substance misuse, obesity, domestic violence and abuse plus adult mental and emotional health and wellbeing, housing and overcrowding. Of course there are preventable elements that relate to infants but are outside of their direct control such as breast feeding, low birth weight, child poverty and teenage conceptions. Experience of working across a complex geography like East Lancashire has reaffirmed the importance of integrating infant mortality prevention into the mainstream work of existing partnerships as well as in service delivery, with a focus on disadvantaged areas and groups. This approach allows for local action to be owned and developed in line with the diverse and different health needs of local communities and those outcome measures that require the most attention (Appendix 2).

Through the Pan-Lancashire Child Death Overview Panel process we now have a better understanding of the circumstances in which every child dies, and more importantly which deaths are modifiable and/or preventable. Looking at infant deaths in this way enables us to put measures in place to assure a reduction by tackling the 'near misses' and ensuring that infants stay alive and well beyond their first birthday, becoming the best they can be into early adulthood. Sharing sensitive analyses and interpretation of data allows us to look together at the 'causes of the causes' at the lowest level, but there is a requirement to suppress numbers at ward level (below 5) to assure anonymity, particularly in areas such as Ribble Valley and Lancaster. We now have disaggregated data – rates and numbers- translated into locality infant mortality profiles showing the pattern of infant deaths going back many years at ward level.

In the Central Locality, these profiles have been used effectively in recent months to informally bring partners together, focusing on those communities where infant deaths are highest. In Preston, efforts will focus on tackling overcrowding and improving housing standards in targeted wards, as well as a 'baby safe' engagement training event. Work in this locality has also been informed by a summary of associated risks to enable local consideration of what else needs to happen through joined-up partnership action to achieve sustainable improvements (see Appendix 1).

This approach can be used effectively within existing resources across Lancashire, preventing the need to set up more groups. In West Lancashire, the infant mortality profiles are being shared with the local Health and Wellbeing Partnership to develop a better understanding of the topic and allow consideration of their priority areas and the potential impact on reducing IMRs. The recent re-configuration of 12 Children's Trust Partnership into 5 Children's Partnership Boards presents an ideal opportunity for integrated partnership action and deliver assurance.

Recommendations

Lancashire CYP Trust Board is asked to:

1. **support an integrated approach to reducing infant deaths through existing locality partnerships rather than create new ones**
2. **ensure that joined-up action to tackle infant mortality is regularly reported to the Lancashire CYP Trust Board through the 5 Children's Partnership Board LCC representatives**
3. **ensure appropriate links are made to local Health and Wellbeing Partnerships and Community Safety Partnerships to ensure existing plans contribute collectively to reducing infant deaths in each locality**

(All partnerships in locality areas will have access to infant mortality profiles and understand their meaning and evidence base for targeted action)

Appendix 1 – Overview of Lancashire Infant Mortality Rates and Associated Risk Factors

The Infant Mortality Rate (IMR) is normally presented as a 3 year rolling average as numbers are too small to calculate rates based on single years. Between the 10 year period 2002-04 and 2010-12 the overall number of infant deaths across Lancashire County reduced by 15; the highest number of infant deaths were seen in 2004-06 (n=234). Across Lancashire districts, between the same periods, the number of infant deaths increased in 4 out of 12 districts. During the 2009-11 period there were 203 infant deaths and during the 2010-12 period there were 200 deaths. There were 148 less live births during the 2010-2012 period, compared with 2009-11 period. Although there were 3 less deaths in the 2010-12 period, less live births during this period may be have contributed to the 2010-12 rate being significantly higher than the England rate.

Between 2004-2002 to 2010-12 Lancashire's infant mortality rate has decreased by 17% compared to a 21% decrease in England. Between 2009-11 and 2010-12 Lancashire's infant mortality rate has decreased by 2% compared to a 4% decrease in England. Table 1 presents the infant mortality rates over the years and differences from the England and Lancashire average.

Table 1: Lancashire Infant Mortality Rates per 1000 Live Births at district level 2001/04 to 2010/12

	2002-2004	2003-2005	2004-2006	2005-2007	2006-2008	2007-2009	2008-2010	2009-2011	2010-2012	% change between 2002-04 and 2010-12	% change between 2009-11 and 2010-12
Burnley	6.7	7.3	5.2	5.3	5.3	5.5	6.4	6.9	6.9	2%	0%
Chorley	5.0	3.7	4.2	4.2	4.9	5.5	6.1	5.2	4.6	-9%	-11%
Fylde	5.2	4.4	4.4	3.8	3.8	3.2	4.1	5.0	5.8	13%	16%
Hyndburn	6.1	7.4	8.1	8.1	5.9	5.5	4.0	4.5	4.4	-29%	-3%
Lancaster	5.4	6.9	6.3	5.4	4.9	3.9	4.2	3.5	3.4	-37%	-2%
Pendle	8.1	9.7	9.1	8.0	7.1	6.9	7.2	6.7	6.3	-22%	-6%
Preston	8.6	8.4	6.6	6.1	5.6	5.4	5.2	5.3	5.7	-33%	9%
Ribble Valley	4.6	4.6	4.0	1.3	2.0	5.8	6.0	4.9	0.7	-84%	-85%
Rossendale	3.6	2.2	3.3	5.3	6.8	5.9	4.6	3.5	3.2	-12%	-10%
South Ribble	3.3	4.1	5.7	4.6	4.4	1.9	2.2	2.7	4.0	22%	50%
West Lancashire	5.3	4.5	5.4	4.7	5.2	4.6	5.5	5.5	4.9	-8%	-11%
Wyre	4.1	3.4	6.0	6.5	5.7	5.1	3.8	4.8	5.6	34%	15%
Lancashire	**5.8**	**5.9**	**5.9**	**5.6**	**5.3**	**4.9**	**5.0**	**4.9**	**4.8**	**-17%**	**-2%**
England	**5.2**	**5.1**	**5.0**	**4.9**	**4.7**	**4.6**	**4.4**	**4.3**	**4.1**	**-21%**	**-4%**

Source: PHOF

Significantly above England
Similar to England
Significantly below England

Associated Risk factors

For the Central Locality, as part of the infant mortality work, the public health team considered associated risk factors to enable identification of wards where joined up action could impact on reducing infant deaths. The following 10 indicators were agreed initially as risk factors to be used for the local profiling (recognising that the risk factors included were dependent on availability of ward data):

1. Child poverty
2. Infant deaths 2003-2013
3. Reception obesity
4. Year 6 obesity
5. Teenage conception 09-11
6. Low birth weight births
7. Adult obesity
8. Overcrowding
9. Fertility
10. Children achieving a good level of development at age 5

Once a list of risk factors had been agreed, for each district:

1. Ward level data was obtained for all the 10 risk factors.
2. Each ward was then ranked for every risk factor and
3. For each ward an average of all ranks (from step 2) was calculated
4. The wards with the higher average ranks were deduced to have higher risk factors for infant mortality.

Appendix 2 – Oversight of Infant Mortality related indicators across existing Lancashire Partnerships

Children's Trust Partnership Boards
Outcome indicator
Access to antenatal care
Low birth weight at term
Breast Feeding rates
Smoking at time of Delivery
Childhood obesity (Reception/Year 6)
Children in poverty
Infant Mortality
Teenage Conceptions
District Health and Wellbeing Partnerships
Long term unemployment
Mental Health and emotional wellbeing
Substance misuse
Housing and overcrowding, homelessness
Lifestyles/behaviour - obesity, poor nutrition, physical inactivity
District Community Safety Partnerships
Domestic abuse
Violent crime
Substance misuse