

Members are reminded that they must declare all relevant pecuniary and non-pecuniary interests relating to any items of business to be discussed at this meeting

BIRMINGHAM CITY COUNCIL

HEALTH AND WELLBEING BOARD

TUESDAY, 29 NOVEMBER 2016 AT 15:00 HOURS
IN COMMITTEE ROOMS 3 & 4, COUNCIL HOUSE, VICTORIA
SQUARE, BIRMINGHAM, B1 1BB

A G E N D A

1 NOTICE OF RECORDING

Chair to advise, and the meeting to note, that this meeting will be webcast for live and subsequent broadcast via the Council's Internet site (www.birminghamnewsroom.com) and that members of the press/public may record and take photographs. The whole of the meeting will be filmed except where there are confidential or exempt items.

2 APOLOGIES

3 DECLARATIONS OF INTERESTS

Members are reminded that they must declare all relevant pecuniary interests and non-pecuniary interests relating to any items of business to be discussed at this meeting. If a pecuniary interest is declared a Member must not speak or take part in that agenda item. Any declarations will be recorded in the minutes of the meeting.

3 - 8

4 MINUTES AND MATTERS ARISING

To confirm the Minutes of the last meeting (1500-1505).

5 CHAIR'S UPDATE

To receive an update (1505-1510).

- 9 - 16**
- 6 **HEALTH & WELLBEING STRATEGY**
- To consider identifying a number of limited priorities for inclusion in the refreshed Health and Wellbeing Strategy (1510-1530).
- 17 - 22**
- 7 **BIRMINGHAM HEADSTART**
- To consider a progress report on emotional wellbeing work in schools and recommendations for next steps (1530-1540).
- 23 - 44**
- 8 **A STRATEGIC APPROACH TO REDUCING ADVERSE CHILDHOOD EXPERIENCES**
- To consider identifying Adverse Childhood Experiences as a means to breaking the intergenerational cycle of harm, dysfunction and disadvantage (1540-1555).
- 45 - 74**
- 9 **DELIVERING THE BIRMINGHAM DOMESTIC ABUSE PREVENTION STRATEGY 2017-2020**
- To consider a report on extending consultation on the proposed Strategy through members' organisations and stakeholders and leading for the city on the implementation of defined strands (1555-1615).
- 75 - 100**
- 10 **AIR POLLUTION AND HEALTH IN BIRMINGHAM**
- To consider a report and recommendations on the threat posed to health and the local economy by poor air quality due to outdoor air pollution (1615-1630).
- 11 **BLACK COUNTRY SUSTAINABILITY AND TRANSFORMATION PLAN - IMPLICATIONS FOR BIRMINGHAM**
- To receive an update on the implications for Birmingham (1630-1645).
- 12 **OTHER URGENT BUSINESS**
- NB: Only items of business by reason of special circumstances (which are to be specified) that in the opinion of the Chair of the meeting are matters of urgency may be considered.

**MINUTES OF A MEETING OF THE BIRMINGHAM HEALTH AND
WELLBEING BOARD HELD ON TUESDAY 27 SEPTEMBER 2016 AT 1500
HOURS IN THE BVSC CONFERENCE CENTRE, WALKER BUILDING, 138
DIGBETH BIRMINGHAM B5 6DR**

PRESENT: - Councillor Paulette Hamilton in the Chair; Andy Cave, Dr Aqil Chaudary, Councillor Lyn Collin, Dr Andrew Coward, Professor Nick Harding, Peter Hay, Councillor Brigid Jones, Chief Superintendent Richard Moore and Tracy Taylor.

ALSO PRESENT:-

David Hunter, Professor of Health Policy and Management Director, Centre for Public Policy and Health
Neil Perkins, Postdoctoral Research Associate
Chief Inspector Sean Russell, West Midlands Police
Shelina Visram, Lecturer in Public Policy and Health
John Wilderspin, STP Operational Director
Paul Holden, Committee Services

APOLOGIES

161 Apologies for absence were submitted on behalf of Cath Gilliver, Dr Adrian Phillips, Dr Gavin Ralston and Alison Tonge.

DECLARATIONS OF INTERESTS

162 Members were reminded that they must declare all relevant pecuniary and non-pecuniary interests relating to any items of business to be discussed at this meeting. If a pecuniary interest is declared a Member must not speak or take part in that agenda item. Any declarations would be recorded in the minutes of the meeting.

FUNCTIONS, TERMS OF REFERENCE AND MEMBERSHIP

163 The following schedule outlining the functions, terms of reference and membership of the Health and Wellbeing Board agreed by Cabinet on 28 June 2016 was noted:-

(See document No. 1)

MINUTES AND MATTERS ARISING

- 164 The Minutes of the Board meeting held on 22 March 2016 were confirmed and signed by the Chair.
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DURHAM UNIVERSITY – FEEDBACK ON HEALTH AND WELLBEING BOARD

- 165 The following report was received:-

(See document No. 2)

David Hunter (Professor of Health Policy and Management Director, Centre for Public Policy and Health), Shelina Visram (Lecturer in Public Policy and Health) and Neil Perkins (Postdoctoral Research Associate) presented the following PowerPoint slides to the Board:-

(See document No. 3)

The following were amongst the issues raised and responses to questions:-

- 1) The Chair considered that the Board had been inclusive and consulted appropriately prior to refreshing the Health and Wellbeing Strategy. However, she felt that because the Operations Group had been going through a period of change it had been less effective recently and pointed out that the Sustainability and Transformation Plan (STP) process had adversely impacted on the Board's level of engagement with the public - an area where she was of the view the Board should now be more proactive.
- 2) Professor Nick Harding underlined that under the current legislation the Health and Wellbeing Board was the relevant forum for partnership working / promoting greater service integration across health and social care. He indicated that he felt that any changes in structure that might be required as a result of the STP / proposals to create a new Clinical Commissioning Group (CCG) should be considered further down the line at the appropriate time. In referring to the West Midlands Combined Authority, he also highlighted that there could be an argument for setting accountability at that level.
- 3) Tracy Taylor pointed out that it was important to recognise that the Board had considerable influence and considered that it should therefore step-up in terms of influencing the integration and development of health and social care services.
- 4) John Wilderspin, STP Operational Director highlighted that the Joint Strategic Needs Assessment (which the Health and Wellbeing Board was responsible for developing) was an STP foundation planning document. Mention was also made at this juncture of there being a risk of confusing the purpose of the STP and the role of Health and Wellbeing Board. The view was expressed that for any Board to succeed it had to have a strong sense of purpose and it was suggested focusing on the Health and Wellbeing Board's 'Unique Selling Point'.

- 5) Dr Andrew Coward referred to how fortunate citizens were in this country in having a health service that was free at the point of delivery. However, notwithstanding work that had been taking place he felt that so far there had been a failure to substantially improve the overall health of citizens through pursuing a prevention agenda - which was the way that he considered the Health and Wellbeing Board could have the single most impact locally. He believed that the following were areas upon which the Board should focus:
- The prevention agenda especially in respect of non-communicable diseases (e.g. Adverse Childhood Experiences, Childhood Obesity).
 - Mental health services and parity of esteem for people suffering from the condition.
 - Investment in community services.
 - Maintaining a robust voluntary sector.
 - Promoting the integration of health and social care services.
- 6) In response to a request from a member for views on how the Board should move forward the representatives suggested not being over ambitious; breaking down what was looking to be achieved into small segments; focusing on where the Board could have the most impact in terms of improving the general health of citizens; and ensuring that aspirations were both achievable and deliverable. Furthermore, it was important that there were clear roles and responsibilities and that the Board had the necessary support and mechanisms to take work forward - which was where the Operations Group had a role. The importance of effective public engagement through such events as Health Summits was also mentioned. In relation to the Board membership, it was felt that there was no simple answer to how wide this should be as just increasing its size could cause it to become too unwieldy to operate effectively.

The Chair thanked the representatives for reporting to the meeting and for their feedback.

SUSTAINABILITY AND TRANSFORMATION PLAN

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The following report was received:-

(See document No. 4)

Peter Hay, Strategic Director for People introduced the information contained in the report.

The following were amongst the issues raised and responses to questions:-

- 1) Members voiced concerns that information in respect of the work taking place on the Sustainability and Transformation Plan (STP) was not being

shared with the public and it was reported that NHS England would not allow information to be made publically available until after the STP submission in mid-October 2016.

- 2) In response to a request for potential solutions to the problems faced, Dr Andrew Coward highlighted that the underlying challenge was how to address the NHS and social care funding crisis. He reported that the country was spending much less on health care than the European average and that further savings were expected to be made over the next five years. Furthermore, the Local Authority had experienced massive budget cuts and continued to face funding pressures which had impacted on the provision of its social care services. In relation to the local health service budget deficit he indicated that most of this was due to overspending by the Heart of England NHS Foundation Trust and considered that for that Trust to operate on a sustainable basis work needed to take place in the five areas he'd identified during the discussion under the previous agenda item. Nonetheless, he pointed out that the monies to carry out this work needed to be transferred from the secondary care sector as there was no additional funding to engage in the 'double-running' of services.
- 3) Further to 2) above, the Chair referred to the adverse reaction that there would be from members of the public to any proposals to close secondary care services. She considered that NHS England's objectives were admirable and indicated that she supported the integration of health and social care services. However, the Chair did not agree with the approach NHS England had adopted in respect of the STP as so far there had been no public engagement.
- 4) Tracy Taylor referred to work that was still taking place on the STP and considered that not having yet engaged with the public would mean that the level of public consultation would need to be that much greater when it happened. Professor Nick Harding underlined that it was essential that the public was on board and pointed out that, unless it could be explained how health and social care services would be better, proposed outcomes would not be achieved.
- 5) The Chair stressed that in moving forward it was essential that the health service and local authority worked together as equal partners and Professor Nick Harding referred to the importance of there being joint ownership of the STP. In seeking to solve the problems faced it was essential that partners continued to work together and did not blame each other.
- 6) Further to comments made by Dr Andrew Coward, the Chair asked that the Committee Services Officer contact the report authors enquiring why members of the Health and Wellbeing Board had not received invitations to the stakeholder and engagement events referred to in the report.
- 7) Councillor Lyn Collin emphasised that it was crucial that a preventative strategy was pursued and concurred with other comments made that public consultation on the STP should by now have been taking place.

WEST MIDLANDS COMBINED AUTHORITY – PUBLIC SECTOR REFORM

The following report was submitted:-

(See document No. 5)

Chief Inspector Sean Russell introduced the information contained in the report.

The following were amongst the issues raised and responses to questions:-

- 1) In welcoming and commending the report, Professor Nick Harding referred to the need to look at how the Health and Wellbeing Board could help in achieving the vision and ambitions.
- 2) Dr Aqil Chaudary underlined the need to link the Criminal Justice System to the prevention agenda and knowledge being gained about the harm caused by Adverse Childhood Experiences (ACEs).
- 3) Reference was made by Dr Andrew Coward to an excellent DVD telling the story of a person who had offended and he suggested that it be circulated more widely or shown at a Health and Wellbeing Board meeting. Chief Inspector Sean Russell, West Midlands Police undertook to pursue the matter.
- 4) Further to questions from the Chair, Chief Inspector Sean Russell considered that in relation to the availability of bedded accommodation the position was better than five or six months ago. In relation to the concept of Zero Suicide he indicated that the first aim would be to achieve this in respect of individuals in prison/police cells and those in mental health/hospital settings - and then to move on.
- 5) The Chair indicated that she would very much like to see sign-up to a Mental Health First Aid initiative.
- 6) Dr Andrew Coward pointed out that people who had four or more ACEs were a lot more likely to commit suicide.

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RESOLVED:-

That this Board agrees to adopt the emerging outputs from the Public Sector Reform work stream within the Health and Wellbeing Board Strategy, especially those relating to Mental Health and Multiple Complex needs.

DATES AND TIME OF MEETINGS

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At this juncture, members noted the dates and time (1500 hours) of future meetings of the Health and Wellbeing Board, as follows: 29 November 2016; 31 January 2017; 14 March 2017.

The meeting ended at 1700 hours.

	<u>Agenda Item: 6</u>
Report to:	Birmingham Health & Wellbeing Board
Date:	29th November 2016
TITLE:	HEALTH & WELLBEING STRATEGY
Organisation	Birmingham City council
Presenting Officer	Adrian Phillips, Director of Public Health

Report Type:	Decision
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1. Purpose:
To invite Board Members to propose a small number of priorities for the refreshed strategy

2. Implications:		
BHWB Strategy Priorities	Child Health	Y
	Vulnerable People	Y
	Systems Resilience	Y
Joint Strategic Needs Assessment		Y
Joint Commissioning and Service Integration		Y
Maximising transfer of Public Health functions		N
Financial		Y
Patient and Public Involvement		Y
Early Intervention		Y
Prevention		Y

3. Recommendation
<p>That the Health and Wellbeing Board:</p> <ul style="list-style-type: none"> • Agrees a limited number of priorities for the refreshed strategy • Delegates further development to the Operations Group • Receives a revised draft strategy at the next meeting as well as related proposals in terms of key stakeholders

4. Background

4.1 The Health and Social Care Act 2012 required Local Authorities in England to have a Health and Wellbeing Board (HWBB). Boards should ensure that local health needs drive local decision-making, bringing together partners to improve health. The initial Health and Wellbeing Strategy (HWS) was adopted in June 2013 and is the first of its kind in Birmingham. It outlined the key priorities for the HWB and required the involvement of many organisations across the city for its delivery. Three years have now passed since the creation of the HWS and it is necessary to review whether priorities need updating to reflect the current situation, as well as whether improvements can be made to maximise its beneficial impact. Proposals for new priorities are presented.

4.2 Current Strategy

The current strategy was presented on a page and highlights its vision to improve the health and wellbeing of the most vulnerable individuals in Birmingham as its most important priority. The strategy is divided into three sections and consists of ten outcomes with actions, measures and targets with timeframes given. The outcomes included for each key area is as follows:

4.2.1 Vulnerable People

- Make children in need safer
- Improve the wellbeing of children
- Increase the independence of people with a learning disability or severe mental health problem
- Reduce the number of people and families who are statutory homeless
- Support older people to remain independent

4.2.2 Child Health

- Reduce childhood obesity
- Reduce infant mortality

4.2.3 System Resilience

- Health and care system in financial balance
- Common NHS and Local Authority approaches
- Improve the primary care management of common and chronic conditions

4.3 Strategy Review

A high level review of progress shows good progress regarding vulnerable children, some progress on homelessness but relatively poor or no progress on the other priorities. The reasons can be distilled into the following:

1. The drivers for change lie outside the control of the HWBB (e.g. child obesity, financial control)
2. The key partners are outside the current HWBB (e.g. infant mortality, family homelessness)
3. The interventions have not been successful or systematic (e.g. resilience of older people)
4. There has been insufficient strategic focus (e.g. independence of vulnerable groups)
5. The HWBB is not just about direct delivery but also about City leadership

Any change in strategy must recognise these barriers and either overcome them or consider whether such an aim is appropriate if success is unlikely.

The third party reviews (UoB and Durham) have highlighted the dilemma of whether the HWBB is systems leader or is it more concerned with transactional actions. Furthermore they both highlight that meeting in “public” may lead to guarded comments when more open and frank discussion between Board members may be more fruitful strategically. Thus there is a great interplay between the style of the HWBB, its membership and its priorities.

4.4 Guiding principles for a new strategy

Meetings and workshops have been held to discuss how the HWS functions and identify views on strategy development what it was felt important to include. Members generally supported the concept of a strategy on a page and much of the existing content; however suggestions for improvement were also raised. Key themes that emerged were:

- There should be no more than 3 or 4 clear priorities grounded in the population’s needs – fewer priorities/outcomes can focus Board work and make best use of limited resources
- Priorities should be important to all stakeholders and be areas to which all stakeholders can contribute
- Priorities that affect and can add value to most people’s lives
- Strategic fit with the current landscape

Other comments that arose from these discussions included:

- Areas that do not feature as clearly as perhaps they should: improving outcomes for families, mental health and wellbeing, child poverty, fuel poverty, health equity, social isolation, integrated care, air quality
- Agreeing a definition of ‘vulnerable groups’ and recognising that we can’t affect change in massive numbers. For example nearly half a million people in Birmingham are in the most disadvantaged 10% in the country, over a third of children are in “child poverty”
- Using an asset-building approach as opposed to stopping a deficit or problem
- Improving communication and collaboration between agencies
- A changing culture where citizens take increased responsibility for themselves

4.5 Strategic Landscape

It is important to consider the current context as there are many local, regional and national changes that link to health and wellbeing in Birmingham.

4.5.1 Sustainability and Transformation Plan (STP)

The STP is a programme on commissioning and provision work across health and social care, seen as a way of implementing the Five Year Forward View. There are 44 STP areas in the country with Birmingham combined with Solihull. Requiring a major review on how we work and what is done, it aims on closing gaps in health inequalities (Health and Wellbeing Gap), quality of services (Care and Quality Gap) and lack of funding for demand (Productivity and Efficiency Gap). In Birmingham and Solihull, the following Health & Wellbeing priorities have been identified:

- Tackling Primary Care Variation
- Employment and Health

- Vulnerable Groups
- Early Years
- Increasing Physical Activity across the population

4.5.2 West Midlands Combined Authority (WMCA): Public Service Reform (PSR)

The WMCA are twelve local authorities and three local enterprise partnerships that are working together for devolution of powers and budget from central government to the West Midlands. Whilst local councils will deliver services and keep their identity, the WMCA will have the resources to work together on big issues and around big decisions. The PSR developed by the WMCA aims to increase productivity within the public sector as well as improve outcomes for residents. It is particularly focussed on employment in certain groups as a primary tactic to reduce the fiscal gap in the West Midlands and improving cost-effectiveness of public services. The programme is developed around the following areas that the WMCA has recommended are taken into account when refreshing the HWS:

- Employment & Skills
- Criminal Justice
- Mental Health
- In all areas, there is a focus on individuals with multiple complex needs, defined as at least two of: offending behaviour, homelessness and substance misuse.

In particular, the Board should have due regard for the recommendations of the Mental Health Commission which is due to report shortly.

4.6 Proposed Priorities for the Health & Wellbeing Strategy

4.6.1 Taking the above factors into account a draft set of priorities for the Health & Wellbeing Strategy is suggested below. These are a “first-cut” as a clear Board statement related to being succinct and few in numbers. They have been grouped in the manner of previous discussions including those in workshops.

	Areas	Rationale	Board
Improving the wellbeing of children	Detect and prevent Adverse Childhood Experiences	Evidence of impact on child and adult wellbeing	Frequently discussed at Board
	Improve the Early Years support to parents	Evidence of impact on child development	As part of Early Help system
	Improve child and maternal vaccination	Evidence of reducing common infectious diseases	Discussed in relation to Health Protection
	Stable accommodation for children	Unstable and temporary accommodation disrupts social bonds causing stress and mental ill health	Discussed as part of impact of housing and health

Improve the independence of adults	Support people to remain in their own communities	Improves wellbeing and reduces reliance on public sector support	Previous priority and STP
	Improve relevant vaccination and screening	Flu and pneumococcal vaccination as well as bowel screening are evidence-based	Discussed in relation to Health Protection
	Increase the control of individuals over their care	Personalisation has been shown to increase wellbeing and independence in many areas	Part of initial strategy and STP
Improving the wellbeing of the most disadvantaged	Improving employment in those with severe mental health problems and learning disability	There is excellent evidence that work improves wellbeing and other outcomes	Previous priority Discussed within Mental Health and in both STP and WMCA
	Improving stable and independent accommodation for those with mental health problems and learning disability	Excellent evidence for Housing First	Previous priority. In WMCA
	Improve the wellbeing of those with multiple complex needs	Good local evidence from Fulfilling Lives	Discussed at Board WMCA priority
Making Birmingham a Healthy City	Improve air quality	Good evidence	Discussed in relation to Health Protection Board discussion
	Increase physical activity	Good evidence for the effect on wellbeing	Board workshop
	Increased mental wellbeing in the workplace	Good evidence for a positive effect on employees and employers	Within updates on Mental Health commission

4.6.2 A slightly different way of regarding these is to consider those of importance to the Board:

- Where it is the prime leader and motivator
- Where it makes strategic alliances with other Boards etc.

4.6.3 The first requires a careful review of Board membership in order to deliver such a strategic change. An obvious example relates to children. The second requires good collaboration and possibly formal alliances with those other mechanisms. Examples include air quality and homelessness. This would not stop the HWBB putting forward its ambition, e.g. an ambition to stop temporary accommodation for families and those with mental illness. It is recognised that few (if any) other Boards etc. specifically focus on the most vulnerable as an important inequality.

4.6.4 Thus the HWBB could be the local champion for the MH Commission recommendations as well as increasing physical activity and reducing the vulnerability of the most disadvantaged. It may also be concerned about Air Quality and Homelessness but liaise with other Boards who are similarly concerned with such areas. These are examples only.

4.6.5 No matter which priorities are chosen, they need to be reviewed in light of learning from the current strategy as described above.

4.7 Next Steps

- The Health & Wellbeing Board refines the proposed areas for the strategy.
- Measures and targets will be proposed by the Operations group to the Board
- Key stakeholders and other relevant Boards etc. will be identified
- Board members will need to consider their leadership role in each area.

In addition, the HWBB may need to consider membership in order to deliver the strategy or whether it has the right links to other groups, e.g. Mental Health Systems Strategy Board.

Once the strategy is agreed, the Operations Group will:

- Firm-up indicators and targets against each of the priorities;
- Establish the system wide activities and plans to deliver against each of the priorities;
- Report back to the Board on progress against the agreed targets and potential concerns in achieving these.

5. Compliance Issues

5.1 Strategy Implications

This paper concerns development of the strategy

5.2 Governance & Delivery

To be overseen by the Health and Wellbeing Board

5.3 Management Responsibility

The Board

6. Risk Analysis

A risk assessment cannot be completed until the draft strategy has been agreed

Appendices

None

Signatures	
Chair of Health & Wellbeing Board (Councillor Paulette Hamilton)	
Date:	

The following people have been involved in the preparation of this board paper:

Gunveer Plahe – Speciality Registrar in Public Health
Wayne Harrison – Assistant Director, Public Health

	<u>Agenda Item: 7</u>
Report to:	Birmingham Health & Wellbeing Board
Date:	29th November 2016
TITLE:	Birmingham HeadStart
Organisation	THE CHILDREN'S SOCIETY AND BIRMINGHAM EDUCATION PARTNERSHIP
Presenting Officer	Rob Willoughby

Report Type:	Information and Decision
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1. Purpose:
To report to the Board progress on emotional wellbeing work in schools and recommendations for next steps

2. Implications:		
BHWP Strategy Priorities	Child Health	y
	Vulnerable People	y
	Systems Resilience	y
Joint Strategic Needs Assessment		
Joint Commissioning and Service Integration		
Maximising transfer of Public Health functions		
Financial		
Patient and Public Involvement		
Early Intervention		y
Prevention		y

3. Recommendation
3.1 That the Health and Wellbeing Board continues to endorse and support the principles of building emotional health, wellbeing and resilience through

strategic work in schools that; improves the wellbeing of vulnerable children and prevents mental health problems developing, and helps to develop common approaches between the school, Local Authority, NHS and Voluntary Community Sector systems.

- 3.2 That the Board notes the recommendations made at the Health and Wellbeing Board Operations group meeting on 4th October 2016 and asks the operational group to develop a costed proposal aligning Adverse Childhood Experiences, NewStart (formerly HeadStart) and the Health and Wellbeing Board priorities to strengthen the support to schools.

4. Background

4.1. Current context

Since the previous report to the Health and Wellbeing Board (September 2016) progress has been made on the legacy of the HeadStart Strategy in Birmingham.

- 4.2. The Children's Society (TCS) and Birmingham Education Partnership (BEP) have, as agreed with the Big Lottery, used a small underspend to start work in 20 schools in the city. Known as 'NewStart', This one term plan has been enabling schools to; create emotionally supportive school environments that supports the wellbeing of all pupils, and to work in a more focused way with new Year 7s to identify those vulnerable to poor emotional health and to increase in-school support for those pupils.
- 4.3. This process has enabled schools to; identify students with vulnerabilities that would not otherwise have been picked up, to think differently about equity of provision within the school to enable the most vulnerable children to do well, and identify training needs for the whole staff team that equips them to build resilience and wellbeing. It is clear that those schools who are high performing in Ofsted terms have far greater capacity than those which are more challenged, and therefore, direct support from NewStart staff has been focused on the more challenged schools.
- 4.4. On 4th October 2016 the Health and Wellbeing Board Operations group agreed that:
- 4.5. The current Headstart board be disbanded and merged with the Education Strategy Group formed by the CCG, co-chaired by CCG and BEP and with new Terms of Reference with the aim of oversight of a coordinated approach to the development and delivery of mental and emotional wellbeing in schools.
- 4.6. TCS and BEP form a project team to both deliver the programme to schools until December 2016 and develop a costed model for delivery beyond the life of Big Lottery funding. The project team will report to the education strategy group.

- 4.7. This proposal is taken to the Child and Adolescent Mental Health Services (CAMHS) Transformation Board for endorsement.
- 4.8. Subsequently the Transformation Board has awarded part of the funding needed to maintain the NewStart programme to BEP,
 - 4.8.1. The allocation of £100k per year to BEP (16/17 and 17/18) is to be used over two academic years to employ 2 Strategic Wellbeing Leads (SWBL's) The SWBL's will deliver the Academic Resilience Approach with schools to establish a consistent approach to system change and identification of both individual and whole school need. They will also gather intelligence and evidence on needs of young people and school-commissioned support provision in order to shape the work of services in the city.
- 4.9. TCS and BEP have aligned the work of NewStart with the CAMHS Transformation Board in the following ways:
 - 4.9.1. The alignment of Forward Thinking Birmingham's Primary Mental Health Workers with NewStart schools at a secondary level.
 - 4.9.2. The inception of the Education Strategy Group as a sub group to the Transformation Board. This group will be co-chaired by BEP and the CCG and will also include former members of the soon to be disbanded HeadStart Board.
- 4.10. The NewStart team are in conversation with colleagues from Public Health England, Birmingham Public Health officials and West Midlands Police in relation to links to the Adverse Childhood Experiences (ACEs) approach. There is an opportunity to consider how the strategic opportunity afforded by BEP could help develop and embed the ACEs approach within schools.
- 4.11. All Big Lottery funding will end on 31st December 2016. Funding from the CCG is sufficient to fund a basic programme but is insufficient to fund the aspirations approved by the HWBB in the HeadStart Programme. The current programme is working in secondary schools in the city and there is an opportunity to further develop work for primary schools.
- 4.12. There are now opportunities to shape and develop this work in schools with health outcomes that are a priority for Birmingham rather than Big Lottery Fund outcomes.

5. Compliance Issues

5.1 Strategy Implications

- 5.1.1 This work continues to align to all three of the Health and Wellbeing Board's priorities. Building mental health resilience for young people at a time when half of all life-long mental health issues begin to show signs of developing. Working in a systematic and strategic way across schools in the city and continuing the strategic partnerships already achieved through the former

HeadStart Strategy will lead to an overall improvement in the wellbeing of young people	
5.1.2	This work is now firmly aligned with the priorities of the CAMHS Transformation Board
5.2	Governance & Delivery
5.2.1	The Education Strategy Group will be a sub group to the CAMHS transformation Board and will be co-chaired by BEP and the CCG. Terms of Reference are now being re-defined. BEP's NewStart project team will report to the Education Strategy Group.
5.3	Management Responsibility

6. Risk Analysis			
Identified Risk	Likelihood	Impact	Actions to Manage Risk
Loss of relationship of this work to Health and Wellbeing	High	High	<p>Recommend stronger links developed in relation to ACEs and wider health objectives and the opportunities afforded via BEP to work strategically with schools.</p> <p>Recommend continued 6-monthly update report to Health and Wellbeing board</p>
Conflict of schools' work with other agencies in the city	High	High	<p>NewStart now aligned with Forward Thinking Birmingham Primary Mental Health work and regular review meetings to take place</p> <p>Education Strategy group membership to be reviewed to ensure wide representation</p>
Loss of opportunity for sustainable system change within schools via lack of capacity	High	High	Funding from CCG will allow basic work to continue while alternative partnerships are explored.

Appendices
None

Signatures	
Chair of Health & Wellbeing Board (Councillor Paulette Hamilton)	
Date:	

The following people have been involved in the preparation of this board paper:

Rob Willoughby – Area Director, The Children’s Society
Anna Robinson – HeadStart Programme Lead, The Children’s Society
John Garrett – Chief Operating Officer, Birmingham Education Partnership

	<u>Agenda Item: 8</u>
Report to:	Birmingham Health & Wellbeing Board
Date:	29th November 2016
TITLE:	A STRATEGIC APPROACH TO REDUCING ADVERSE CHILD HOOD EXPERIENCES
Organisation	Birmingham City Council & Public Health England
Presenting Officer	Dr Dennis Wilkes

Report Type:	Endorsement
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1. Purpose:
<p>1.1 This report intends to:</p> <p>1.1.1 Inform the Board of the evidence of impact that Adverse Childhood Experiences has on individuals and families;</p> <p>1.1.2 Explore how identifying those with these experiences will impact upon children and families health and wellbeing.</p>

2. Implications:		
BHWB Strategy Priorities	Child Health	Yes
	Vulnerable People	Yes
	Systems Resilience	
Joint Strategic Needs Assessment		
Joint Commissioning and Service Integration		
Maximising transfer of Public Health functions		
Financial		
Patient and Public Involvement		
Early Intervention		Yes
Prevention		Yes

3. Recommendation
<p>The Board is asked to note and endorse the identification of Adverse Childhood Experiences as a means to breaking the intergenerational cycle of harm and dysfunction resulting in ill health and poor achievement.</p>

4. Background
<p>4.1 The presentation outlines the genesis and impact of the commonest Adverse Childhood Experiences. These experiences lead to impaired emotional health and learning in children and young people, mental health in young adults, and physical ill health in older adults. In addition the adverse impact upon parenting results in an intergenerational cycle of disadvantage and abuse.</p> <p>4.2 Identifying those individuals with these adverse experiences provides an enhanced opportunity for individual change with improvement in individual and family health and wellbeing. This then leads to an opportunity to break the intergenerational cycle and.</p> <p>4.3 There are examples given of the use of the Adverse Childhood Experience framework in Birmingham which aim to demonstrate the impact this can achieve.</p>

Appendices
<p>1. Presentation with Notes: Adverse Childhood Experiences: What's the Fuss About?</p> <p>2. A Strategic Direction for Using Adverse Childhood Experiences</p>

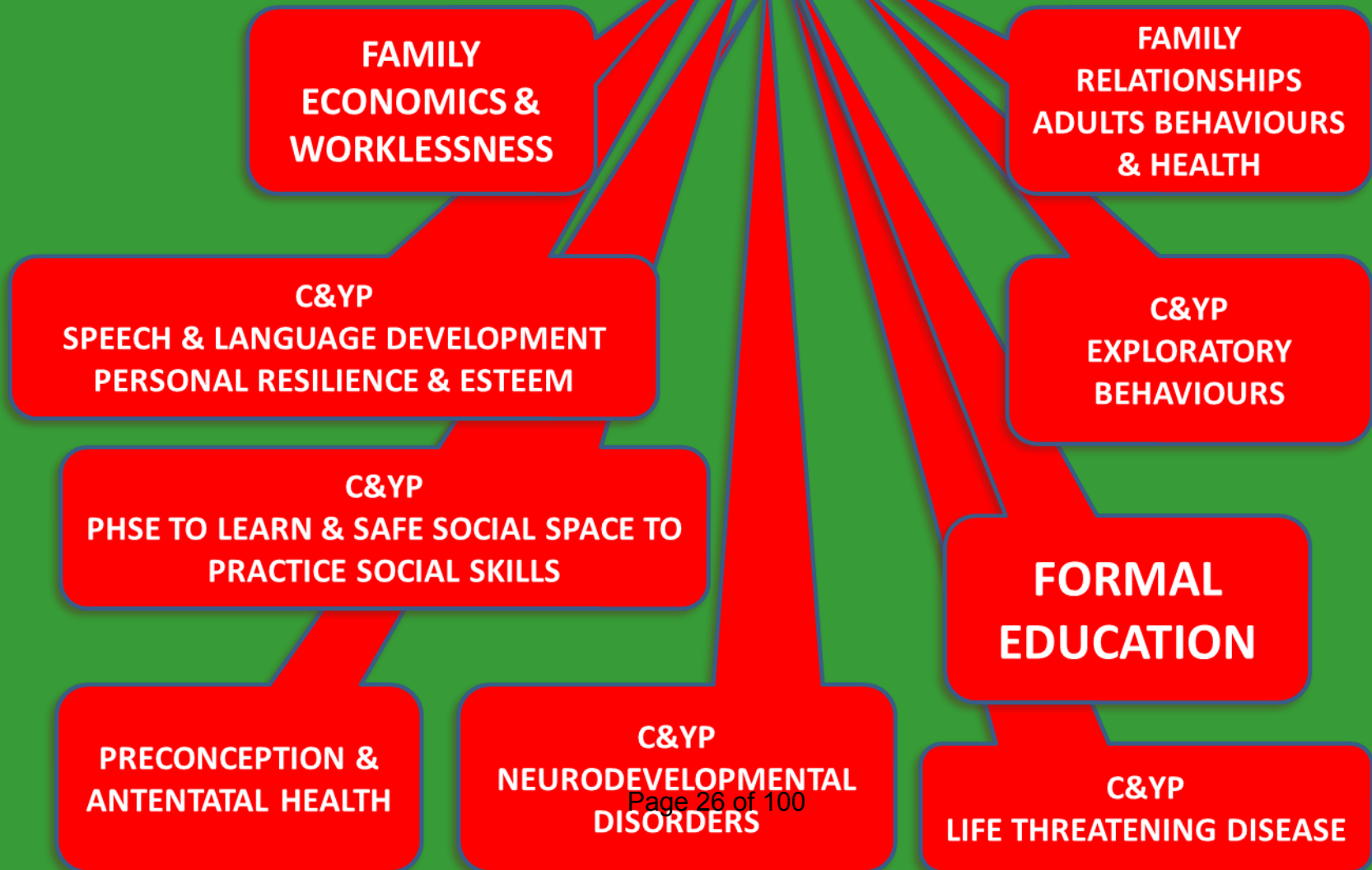
Signatures	
Chair of Health & Wellbeing Board (Councillor Hamilton)	
Date:	

ADVERSE CHILDHOOD EXPERIENCES

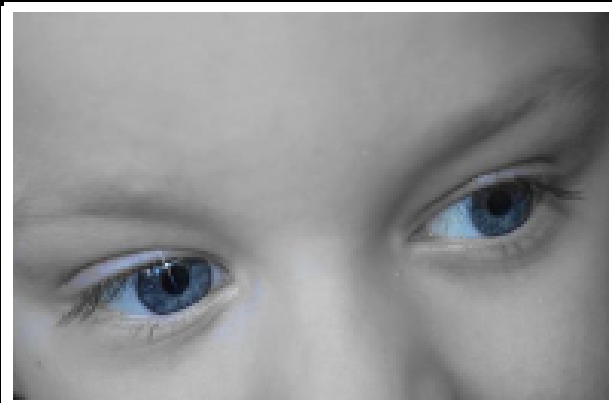
WHAT'S THE FUSS ABOUT?

Dr Dennis Wilkes
Assistant Director of Public Health

IDENTIFIED INFLUENCES ON HEALTH & WELLBEING OF CHILDREN

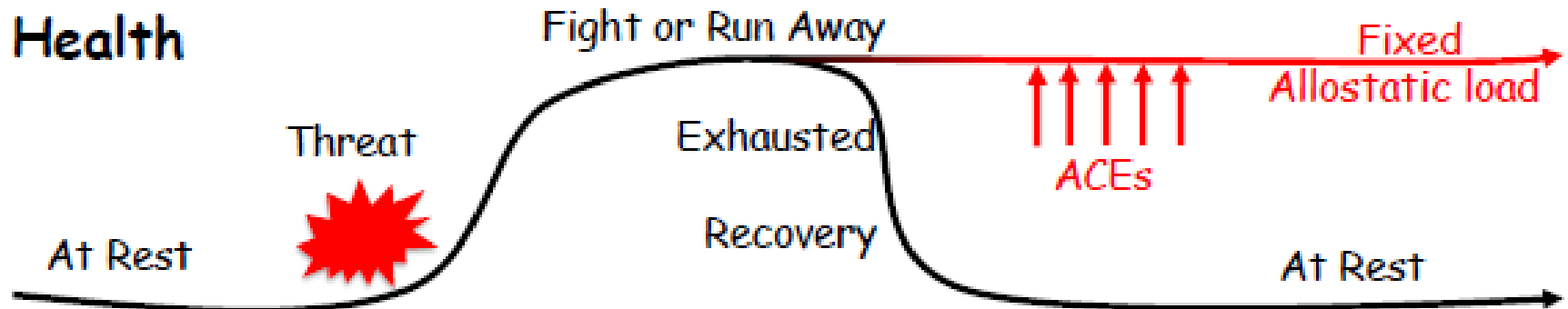


Early Life Experience and The Brain



Critical Years

- First 2 years - baby's brain grows from 25% to 80% of adult size
- Development continues in childhood learning *empathy, trust, community*



Chronic Stress from ACEs

- Violence - over-develop 'life-preserving' brain

NEUTRAL CUES LOOK THREATENING

- School – anxious, disengaged, poor learner

ADVERSE CHILDHOOD EXPERIENCES

PHYSICAL ABUSE

SEXUAL ABUSE

VERBAL ABUSE

PARENTAL
SEPERATION

DOMESTIC
VIOLENCE

MENTAL ILLNESS

ALCOHOL ABUSE

DRUG ABUSE

INCARCERATION



Compared with no ACEs, those with 4+ ACEs were:

3x more likely to be a current smoker
3x more likely to have had sex under 16 years
6x more likely to have used drugs
10x more likely to be problem drinkers
49x more likely to have ever attempted suicide

INDEPENDENT OF POVERTY



If they had no ACEs problems could be reduced by:



Smoking
22%



Early Sex
21%



Drug Use
36%



Problem Drinking
51%



Suicide
83%

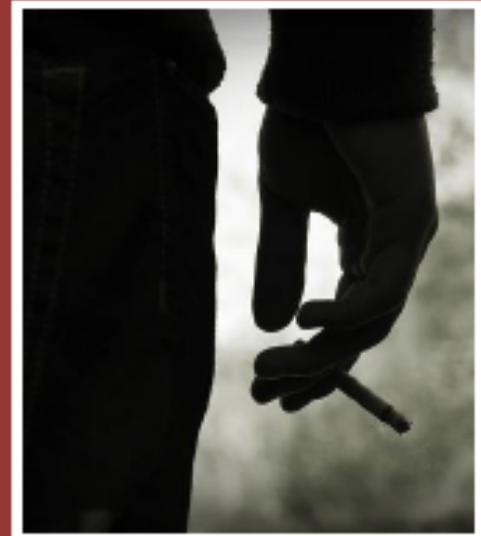
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Aged 18-25 years

UK: Compared with no ACEs, those with 4+ ACEs were:

2x more likely to **binge drink**
3x more likely to be **current smoker**
5x more likely to have had **sex under 16 years**
7x more likely to be involved in **recent violence**
11x more likely to have **used heroin or crack**
11x more likely to have been **incarcerated**

INDEPENDENT OF POVERTY



If they had no ACEs problems could be reduced by:



Smoking
16%



Early Sex
33%



Heroin/Crack
59%



Binge Drinking
15%



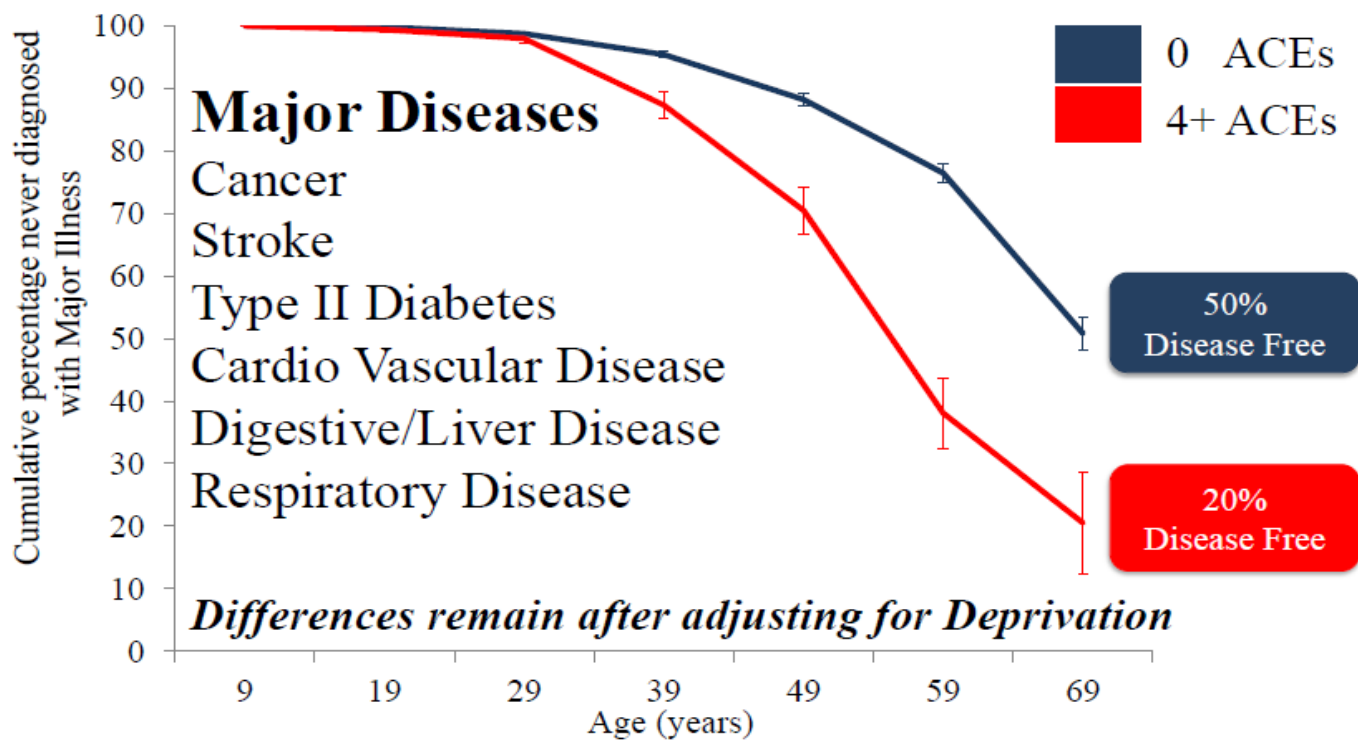
Violence
60%

Page 30 of 100

Aged 18-70 years

The Impact of Adverse Childhood Experiences on ADULT DISEASE

Individuals **Never Diagnosed** with a Major Disease by Age (%)



INTERGENERATIONAL CYCLES



Based on save-the-children.mx

The background is a solid green color. At the top, there are several wavy, horizontal lines in shades of teal and light green, creating a layered, landscape-like effect.

WHAT SHOULD WE DO?

WHAT SHOULD WE DO?



Based on [salvethelchildren.mx](http://www.salvethelchildren.mx)

WHAT SHOULD WE DO?



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ATTACHMENT

WHY SHOULD WE DO THIS?



ADVERSE CHILDHOOD EXPERIENCES

An Initial Strategic Direction in the West Midlands Combined Authority Area 2016

1. WHAT ARE THESE ADVERSE CHILDHOOD EXPERIENCES?

Bowlby first described the extent of the initial attachment of an infant to its mother in the 1950s. He developed this work and demonstrated the adverse impact of a disturbance of this attachment. Since then further research has improved the emotional and biological understanding of this. Felitti (1998) demonstrated the link between Adverse Childhood Experiences and adult illness/disease/early death. In the 1990s this research drove the development of the Solihull Approach, utilising the science of attachment to address behavioural issues of early childhood and parenting. More and more disciplines have demonstrated the impact of traumas in childhood and adolescence on later emotional and physical conditions, although none have drawn this into a coherent framework of prevention and intervention.

The role of multiple Adverse Childhood Experiences in undermining the relationships, behaviours, and wellbeing of children, young people, and adults is profound. It is important we recognise that addressing both the prevention and the consequences of these Adverse Childhood Experiences gives us a seriously exciting opportunity to break the inter-generational cycle of impacts on the health and wellbeing of our parents and children, now and into the future.

2. THE IMPACT OF ADVERSE CHILDHOOD EXPERIENCES

Felitti identified nine common and important Adverse Childhood Experiences (Table 1). He then demonstrated that the more adverse experiences there were in a person's life, the greater the impact on that individual's physical and emotional health which has been confirmed in the UK by more recent researchⁱ (Tables 2&3).

Bellis also confirmed (2014) Felitti's original findings of increased premature mortality in those with multiple Adverse Childhood Experiences (Figure 1) and modelled the impact in Young People (Figure 2).

Table 1: The Definition of Adverse Childhood Experiences

Adverse Childhood Experiences	Definition
Parental separation	Were your parents ever separated or divorced?
Domestic violence	How often did your parents or adults in your home ever slap, hit, kick, punch, or beat each other up?
Physical abuse	How often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? This does not include gentle smacking for punishment
Verbal abuse	How often did a parent or adult in your home ever swear at you, insult you, or put you down?
Sexual abuse	How often did anyone at least 5 years older than you (including adults) ever touch you sexually?
	How often did anyone at least 5 years older than you (including adults) try to make you touch them sexually?
	How often did anyone at least 5 years older than you (including adults) force you to have any type of sexual intercourse (oral, anal, or vaginal)?
Mental illness	Did you live with anyone who was depressed, mentally ill, or suicidal?
Alcohol abuse	Did you live with anyone who was a problem drinker or alcoholic?
Drug abuse	Did you live with anyone who used illegal street drugs or who abused prescription medications?
Incarceration	Did you live with anyone who served time or was sentenced to serve time in a prison or young offenders' institution?
All ACE questions were preceded by the statement "While you were growing up, before the age of 18..."	

Table 2: Questions to Define Health Harming Behaviours

Health Harming Behaviours	Definition
Unintended teenage pregnancy	Did you ever accidentally get pregnant or accidentally get someone else pregnant before you were aged 18 years?
Early sexual initiation	How old were you the first time you had sexual intercourse? (<16 years)
Smoking	In terms of smoking tobacco, which of the following best describes you? (I smoke daily)
Binge drinking	How often do you have 6 or more standard drinks on one occasion (Weekly or daily or almost daily)
Cannabis use	How often, if ever, have you taken the following drugs...cannabis? (any level of use)
Heroin/crack cocaine use	How often, if ever, have you taken the following drugs... heroin/crack cocaine? (Any level of use)
Violence perpetration	How many times have you physically hit someone in the past 12 months? (Any frequency)
Violence victimization	How many times have you been physically hit in the past 12 months? (Any frequency)
Incarceration	How many nights have you ever spent in prison, in jail or in a police station? (Any number of nights)
Poor diet	On a normal day, how many portions of fruit and vegetables (excluding potatoes) would you usually eat (one portion is roughly one handful or a full piece of fruit such as an apple)? (<2 portions)
Low physical activity	Usually, how many days each week do you take part in at least 30 minutes of physical activity that makes you breathe quicker, like walking quickly, cycling, sports or exercise? (<3 days)

Questions on alcohol consumption were drawn from the AUDIT C tool, and participants were provided with information on what constitutes a standard drink (UK = 10 mg of alcohol).

Table 3: The Impact of Adverse Childhood Experiences on Health Harming Behaviours

Outcome	All		Adverse Childhood Experience %				χ^2 trend	P
	%	n	0	1	2to3	4+		
Sexual Behavior								
Unintended teenage pregnancy (<18 years)	5.5	3836	2.9	5.6	8.3	17	106.097	<0.001
Early sexual initiation (<16 years)	16.8	3374	10	19.4	23	37.8	164.629	<0.001
Substance use								
Smoking (current)	22.7	3885	17.7	21.8	28.3	46.4	127.022	<0.001
Binge drinking (current)	11.3	3885	9.3	13.2	12.6	16.7	18.579	<0.001
Cannabis use (lifetime)	19.5	3878	12.2	21.5	27	47.7	241.57	<0.001
Heroin or crack cocaine use (lifetime)	2.2	3882	0.9	1.5	4	9	84.106	<0.001
Violence and criminal justice								
Violence victimization (past year)	5.3	3883	2.4	4.2	10.7	16.1	137.578	<0.001
Violence perpetration (past year)	4.4	3884	2	3.6	8.7	13.9	119.609	<0.001
Incarceration (lifetime)	7.1	3879	3.1	8.1	10.2	24.5	182.58	<0.001
Diet, weight and exercise								
Poor diet (current)	15.6	3879	13.3	15.9	18.3	25.1	31.679	<0.001
Low physical exercise (current)	43	3881	44.1	41.4	41.2	42.7	1.434	0.231

Figure 1:

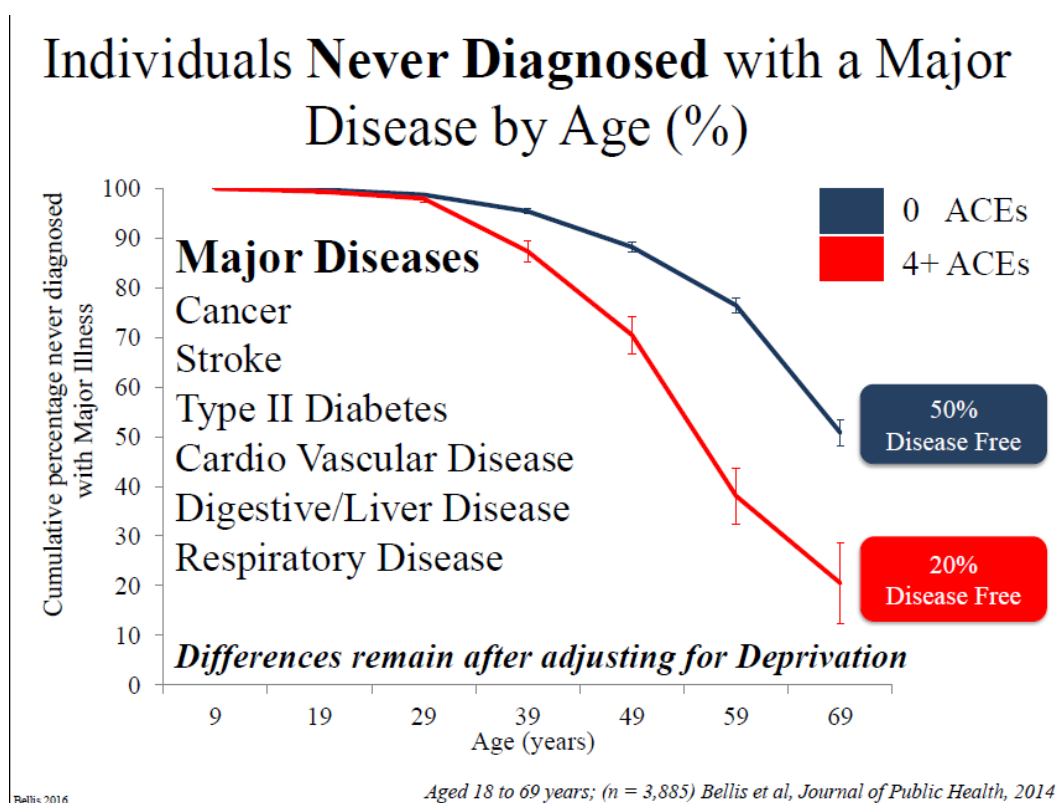
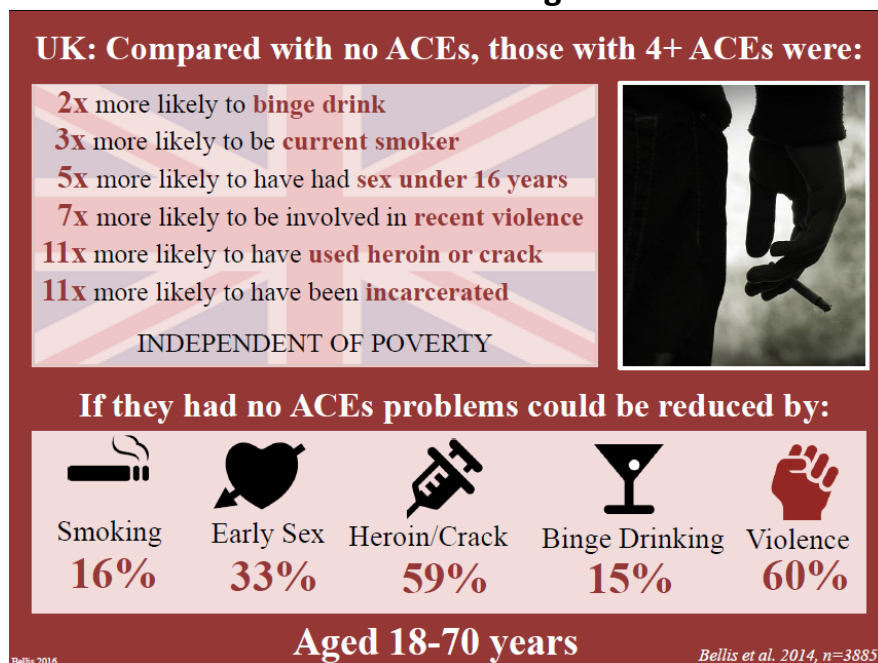


Figure 2: Potential Reductions in Health Harming Outcomes



3. WHAT DIFFERENCE DOES IDENTIFICATION MAKE?

These findings suggest that searching for those Young People and adults with four or more Adverse Childhood Experiences and offering appropriate brief or specialist interventions could reduce the burden of major disease later in life. Fellitti's original work with obese people suggests that identifying the role of Adverse Childhood Experiences in those with established ill health can improve the effectiveness of therapeutic interventions and improve the outcomes for the individuals. There is however no supportive systematic evidence for this yet.

4. HOW SHOULD WE PROCEED?

There is no doubt that the association of multiple Adverse Childhood Experiences and disturbances of emotional health and wellbeing of children, Young People, and young adults is strong. The association with the development of serious physical illness in older adults is also very strong. The key issue is, therefore, how to reduce this impact and break the cycle of intergenerational disadvantage that results.

We cannot intervene, even briefly, if we do not identify those who are affected by their Adverse Childhood Experiences. The identification approach should be linked to the preventative purpose, namely Primary; Secondary; or Tertiary Prevention

a) **Primary preventative approach:**

This approach is intended to reduce the likelihood of these Adverse Childhood Experiences occurring and is often a universal population wide intervention.

There is some evidence that routinely enquiring about Adverse Childhood Experiences in families in the early antenatal period. This provides the

opportunity for parental recognition of the impact that their experiences has on their family relationships and parenting of their soon to be delivered child.

There is also a prima facie case for strengthening parenting by using the evidence based programmes available.

An example of this approach is a whole school approach to developing healthy relationships and provides a window of opportunity to break the cycle of intergenerational impact of these experiences and behaviours. Effective programmes such as PATHS and SEAL in Primary Schools can contribute to this but effective approaches at Secondary School are still under evaluation.

The inclusion of routine enquiry about Adverse Childhood Experiences might have a place in the transition from Primary to Secondary school setting. However the routine enquiry of all students annually has not been evaluated and would require a serious cohort research study which is beyond the scope of local services.

- b) **Secondary preventative approach:** This approach identifies the adverse events when they occur, but at the earliest opportunity, in order to reduce the impact these experiences have on children and Young People. This could also reduce the likelihood of multiple experiences occurring.

This approach involves identifying groups of families who are causing concern for specific reasons and enquiring of the adults and children about Adverse Childhood Experiences. This affords the opportunity for a brief or specialist intervention to reduce the impact of the Adverse Childhood Experience on the individual adult or children and a subsequent improvement in their individual and family health and wellbeing in the present and future.

- c) **Tertiary preventative approach:** This approach involves looking for these experiences in those with established physical and emotional disease that are in contact with specialist services.

The enquiry would be with a view to addressing the influence of the Adverse Experience on the severity of the condition which already requires specialist help and/or improving the impact of that therapy. There is no evidence from evaluations so far on either of these benefits or whether it would influence recovery/survival times from these conditions.

In Blackburn & Darwen, Lancashire, there is a programme to roll out training for routine enquiry to a number of different service/client settings and an evaluation of the impact of its use is planned. Initial qualitative feedback from the training and initial use is encouraging but formal evaluation of the impact on outcomes will be important.

The most noticeable impact at this early stage occurs in those who respond to the routine enquiry as a brief intervention. The discussion of these experiences leads to

a change in understanding of the impact these experiences are having in their lives and they proceed to make adjustments in their lives. This is particularly noticeable in settings addressing parenting approaches.

The more important question however is: *does identification improve the outcomes for individuals* and at what additional service cost?

5. IS THERE LOCAL INTEREST TO BUILD A WAY FORWARD?

From the evidence so far presented the use of an enquiry tool for Adverse Childhood Experiences in groups of children and adults where there are behaviours or conditions are likely to arise from these experiences could be beneficial. Interest in this approach of identification to improve the outcomes of people in the West Midlands has already emerged.

a) Birmingham Schools

The recently commissioned School Health Advisory Service supports schools in identifying physical and emotional issues which may contribute towards any concerns the school may have. This opens the way for access to more intensive or specialist support and intervention. The assessment currently uses Strengths and Difficulties but the service is keen to consider a tool to routinely enquire about Adverse Childhood Experiences.

The City of Birmingham School is particularly keen to consider this approach in its role as the Pupil Referral Unit.

Birmingham Education Partnership and The Children's Society are developing a support programme for a whole school based approach using the Young Minds Achieving Resilience programme. Discussions have included the role of Adverse Childhood Experiences but no plans to adopt this into the awareness of the school community.

b) West Midlands Police

Work is in hand to enhance the identification of individuals in contact with Police who also have four or more ACEs. The TIPT tool (tool for intervention and prevention triggers) will flag people when they hit their 4th ACE so that we can seek to do some intervention work with partners. This is an IT development using the Police Information System. The intention is to identify those individuals or families who might benefit from additional support of other agencies and reduce the likelihood of future offending or contact.

In Solihull West Midlands Police are working with a group of secondary schools who are keen to become part of a trial to develop Adverse Childhood Experience aware schools. The trial is led by Blackburn and Darwen.

c) **West Midlands Mental Health Prevention Project**

The West Midlands Combined Authority has set a priority on improving the Mental Health of communities and has established a Mental Health Strategy Board. One of its work streams is prevention. The work stream is looking to review the evidence base for prevention and establish some local test beds of evidence based programme approaches. Adverse Childhood Experiences is a theme included in the evidence base and opportunities to support the testing are being looked for.

d) **Troubled Individuals**

The West Midlands Combined Authority are exploring the potential for targeting individuals with complex behavioural needs and who engage multiple specialist services in an uncoordinated manner. There is interest in using a framework based on Adverse Childhood Experiences to identify support packages that are likely to change the outcome for these individuals.

e) **Medically Unexplained Symptoms**

General Practitioners can identify a number of individuals whose symptoms prove difficult to convert to a definable medical condition/illness despite numerous and increasingly complex investigations. Research over the years has suggested there might be emotional drivers but a Primary Care framework based on Adverse Childhood Experiences might help unlock beneficial therapeutic opportunities. Work is developing through the Academic Health Sciences Network.

6 CONCLUSION

This document:

- i. sets the context for developing a strategic framework for using Adverse Childhood Experiences to improve the emotional and physical health and Wellbeing of the communities of the West Midlands Combined Authority and beyond;
- ii. develops a framework to develop future work; and
- iii. identifies the current interest as initial starting points.

11 September 2016

ⁱ Bellis M, Hughes K, Leckenby N, Perkins C, Lowey H *National Household Survey of Adverse Childhood Experiences and Their Relationship with Resilience to Health Harming Behaviours in England*

	<u>Agenda Item: 9</u>
Report to:	Birmingham Health & Wellbeing Board
Date:	29th November 2016
TITLE:	DELIVERING THE BIRMINGHAM DOMESTIC ABUSE PREVENTION STRATEGY 2017-2020
Organisation	Birmingham City Council
Presenting Officers	Paula Harding

Report Type:	Endorsement and Decision
---------------------	---------------------------------

1. Purpose:
<p>This report introduces the consultation on the proposed Birmingham Domestic Abuse Prevention Strategy; seeks the Board's endorsement of the ambitions of the Strategy and asks the Board to consider whether it is well placed to lead on particular strands of the Strategy.</p>

2. Implications:		
BHWP Strategy Priorities	Child Health	Y
	Vulnerable People	Y
	Systems Resilience	Y
Joint Strategic Needs Assessment		Y
Joint Commissioning and Service Integration		Y
Maximising transfer of Public Health functions		
Financial		
Patient and Public Involvement		
Early Intervention		Y
Prevention		Y

3. Recommendation

- 3.1 That Members consider assisting in extending the consultation on the Domestic Abuse Prevention Strategy through their organisations and stakeholders as referred to in section 6 of the report;
- 3.2 That the Board considers leading for the city on the implementation of defined strands of the Strategy as referred to in Section 5.

4. Background

- 4.1 In June 2015, the Board heard a preliminary analysis of Birmingham's response to domestic abuse. This analysis and the multi-agency review that followed, has led to a refresh of the Birmingham Domestic Violence and Abuse Needs Assessment and proposals for a Domestic Abuse Prevention Strategy.
- 4.2 The Commissioning Centre of Excellence and Birmingham Community Safety Partnership are working jointly and with key contributions from partner agencies across Health, Criminal Justice and the Voluntary Sector to achieve a collaborative and co-ordinated multi-agency and city-wide approach to the prevention and early identification of domestic abuse.
- Domestic abuse affects every area of Birmingham life and every ambition for the City whether this be for the health, education, safety and opportunity of our citizens, both adult and child, or the City's economy and community cohesion. Tackling domestic abuse therefore has become a shared priority for each of our strategic partnerships in the City.

5. The Proposed Birmingham Domestic Abuse Prevention Strategy

- 5.1 The proposed Strategy (Appendix 1) set outs Birmingham's commitment to preventing domestic abuse. It seeks to address the barriers that all citizens face in gaining support and protection and achieving the equality that is needed to end domestic abuse in the City. The key priorities for the Strategy are structure across three areas of prevention: changing attitudes (primary prevention); early help (secondary prevention); safety and support (tertiary prevention)
- 5.2 Clearly each area of domestic abuse prevention contributes to the outcomes sought by the Health and Wellbeing Board. Their specific alignment has loosely been drawn in the 'Plan on a Page' (Appendix 2) but Board Members' particular attention needs to be drawn to:

5.2.1 Changing Attitudes

The scale and increasing prevalence of domestic abuse in the city, represents a major public health issue. Much more needs to be done across the population of adults, children and young people to change how domestic abuse, predominantly as violence against women and girls, is condoned or tolerated.

We would ask the Board to consider whether the proposals within the strategy to change societal attitudes go far enough, or whether a wider public health approach could be envisaged and realised.

5.2.2 Early Help

The role of trusted professionals, particularly GPs, hospital staff and fire fighters, in being able to identify, signpost and support victims of domestic abuse (both adult and child) much earlier in their experiences, has become an integral part of this strategy and has a firm evidence base.

We would ask the Board to consider whether the roll-out of programmes such as the IRIS programme, might be an area which the Board would seek to drive.

The impact of domestic abuse on families with multiple and complex needs is now well understood. The city has previously developed good practice in working with individuals and families experiencing domestic abuse where mental health and substance misuse was a consequence of this abuse. In addition, and more recently, we have seen a growing street population of women with multiple needs.

We would ask the Board to consider whether it would want to play a part in driving good practice across mental health, substance misuse and domestic abuse services and making sure that those with multiple and complex needs arising from domestic abuse are able to access the specialist services that they may need.

5.2.3 Safety and Support

The role of tertiary prevention in domestic abuse is to ensure that victims and children are safe and protected from harm and the proposed strategy concentrates largely on operational matters of sufficiency, multi-agency co-ordination and integration of arrangements to manage risk and harm, particularly in respect of managing abusers. This involves adequate support, refuge and housing options for victims and children as well as behavioural change programmes for abusers, currently being commissioned by the Office of the Police and Crime Commissioner.

Sufficiency of the response is critical in this level of prevention but the demand comes at a time of reducing public services, which only serve to exacerbate the demand further.

We would ask the Board to consider its role in supporting a multi-agency commissioning model which strikes the balance between the provision of high risk protection and support for victims and children with earlier intervention and recovery models for both adults and children.

6. Consultation on the Birmingham Domestic Abuse Prevention Strategy

- 6.1 Public consultation on the proposed Birmingham Domestic Abuse Prevention Strategy 2017- 2020 runs from Monday 31 October 2016 to Friday 6 January 2017. Further details together with all supporting documents can be found online at:
<https://www.birminghambeheard.org.uk/people-1/birmingham-domestic-abuse-prevention-strategy>

We would ask the Board to encourage its staff and stakeholders to participate in the consultation and help secure the wide engagement with the forthcoming strategy that is needed for change on this level.

Appendices	
1.	Birmingham Domestic Abuse Prevention Strategy 2017-2020 (Consultation Draft)
2.	Proposed Birmingham Domestic Abuse Prevention Strategy (Plan on a Page)

Signatures	
Chair of Health & Wellbeing Board Councillor Paulette Hamilton	
Date:	

**Birmingham Domestic Abuse Prevention Strategy
2017-2020
(Consultation Draft)**

DRAFT

Produced for Birmingham Strategic Partnerships by Birmingham City Council
Commissioning Centre of Excellence
October 2016

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Introduction

Domestic abuse touches the lives, directly or indirectly, of most people in Birmingham. Indeed, the sheer scale of domestic abuse causes untold harm to individuals, children and families, communities and damages the social fabric of the city.

Although Birmingham's services have a strong history of partnership working in addressing domestic abuse, there is now evidence that domestic abuse in the city, as elsewhere, is increasing and more victims, both adult and child, are known to be at risk than ever before. At the same time, our public services are shrinking and we need to find new ways keeping our population safe and healthy and enabling our communities to thrive.

We know a great deal about domestic abuse, not least that left unchecked, domestic abuse gets worse over time and therefore the case for identifying victims and intervening earlier to reduce harm is clear. However, the long-term ambition of this strategy is for a city free from domestic abuse and we must therefore take all practicable steps to eliminate domestic abuse, reducing harm and demand for services along the way. Success on this scale depends upon achieving changes in attitudes and behaviour across individuals, across ages and across cultures and will depend, as the recent City Council Scrutiny report suggested, on all communities taking a lead on prevention.¹

A city free from domestic abuse will require every person expecting their relationships to be based on equality and respect. Domestic abuse will affect many of these relationships whether these are between intimate partners or within families. This strategy seeks to be inclusive of these wider experiences such as forced marriage, honour-based violence, child to parent abuse and violence in young people's own relationships. It also seeks to remove the barriers to support and protection that many more marginalised groups experience, such as Black and Minority Ethnic (BME) women, LGBT victims, disabled victims and younger and older victims. Each of these forms of domestic abuse is rooted in the abuse of power and control and are intrinsically linked to equality. In this way, the role of gender in abusive relationships cannot be ignored and tackling domestic abuse, alongside violence against women, requires a response which takes account of the broader gender inequalities which women face.

What we've achieved since the last domestic abuse strategy

Our last strategy in 2013 identified a number of gaps in our responses to domestic abuse:

Victims, family, friends and professionals didn't know where to

- We funded the Women's Aid helpline which responds to over 1600 victims each year

Many professionals working across the city didn't understand domestic abuse beyond the physical violence

- We have delivered multi-agency training and described what agency's training should look like to help staff understand coercion and control.
- Our Safeguarding Children Board now asks agencies working with children specifically about how they are training their staff on domestic abuse (Section 11)
- We have signed up to West Midlands Domestic Violence and Abuse Standards

Young women experiencing domestic abuse needed their own service.

- Women's Aid now runs a young women's service and has recently received Lottery funding to run the first young women's refuge in the country.

Lesbian, Gay, Bisexual and Trans(LGBT) people experiencing domestic abuse needed their own service to deal with domestic

- We funded a domestic abuse worker specifically for the LGBT community. Birmingham LGBT have the only domestic abuse worker in the region

Services are often fragmented and un-coordinated despite the best efforts of individual agencies involved.

- Domestic abuse specialists now sit with other professionals to identify the risk of domestic abuse to children.
- We have strengthened the arrangements for undertaking Multi-Agency Risk Assessment Conferences where the

Victims don't always want to tell the police about their experiences but may trust other professionals more

- Twenty five GP practices are involved in a project to enable the early identification and response to domestic abuse victims who go to their GP but would have been reluctant to disclose their abuse.
- Birmingham City Council has now taken Civil Orders against domestic abusers for ten years, where criminal action was not possible

There were not enough services for victims at high risk

- We increased the numbers of independent domestic violence advocates supporting high risk victims.

Adequate options for victims with multiple needs arising from substance misuse or mental health

- We developed good practice guidelines on working with women and mothers with multiple needs

Many professionals didn't know what services were available

- We have domestic abuse forums now across the city, bringing agencies and staff together from across the different sectors to share best practice, build their skills and understanding and running local campaigns and initiatives.

Only 53 per cent of victims asking for refuge were able to get refuge

- Unlike many other areas in the country, Birmingham has protected and slightly increased its refuge provision until 2017

Despite these improvements, still more than four women, on average, are killed by their partners each year in Birmingham and serious harm from domestic abuse is increasing. Birmingham is not alone in this as domestic abuse is increasing across the country. However, Birmingham is committed to preventing domestic abuse and this strategy shows how we intend to do it.

Part 1: What We Know

Domestic Abuse Needs Assessment

The starting point for our strategy is understanding domestic abuse and its impact on individuals, families and communities in Birmingham.

Domestic abuse takes place between adults, in families and in relationships. The abuse can be psychological, emotional, financial or physical and involve sexual violence, threats, stalking, harassment, coercion and control. Coercion involves assault, threats, humiliation and intimidation or other abuse that is used to harm, punish, or frighten the victim. Controlling behaviour involves an abuser's control over their victim's everyday life; making them dependent on them; isolating them from support and preventing their independence, resistance and escape.

Domestic abuse in Birmingham, as elsewhere, can happen to anyone, irrespective of where a person lives, their ability, education or place in life, their gender, sexuality, ethnicity, religion or beliefs. However, we know that there are factors that increase the risk of harm.

Domestic abuse may be between adults but it profoundly affects children. Some children are directly abused. Most children living with domestic abuse witness it. The majority of children identified to be in need in Birmingham are living with domestic abuse. However, all children are adversely affected by how an abuser controls the home and everyone in it.

In recent years, we have found that significant numbers of young people also experience domestic abuse in their own relationships, which impacts disproportionately on girls and, for some, links to harms such as teenage pregnancy. We are also beginning to know more about child to parent abuse, particularly affecting mothers, which has largely been hidden from view because of the understandable reluctance that mothers have in reporting it.

Domestic abuse causes significant health problems beyond the physical injuries we normally associate with it and will often lead to mental health problems such as depression, anxiety, self-harm, eating disorders, attempted suicide and substance misuse. For example, women experiencing domestic abuse are fifteen times more likely to misuse alcohol and nine times more likely to misuse drugs than non-abused women. Women and mothers will often have been coerced into substance misuse and we know from serious case reviews that children are most at risk of harm where there is a combination of mental ill-health, substance misuse and domestic abuse in the household.

The consequences of domestic violence include poverty, unemployment and homelessness. It impacts on employers and the local economy by limiting victims' ability to access or sustain education, training and employment. In these ways, abusers create untold harm to the families and communities in which they live.

Barriers to Support and Protection

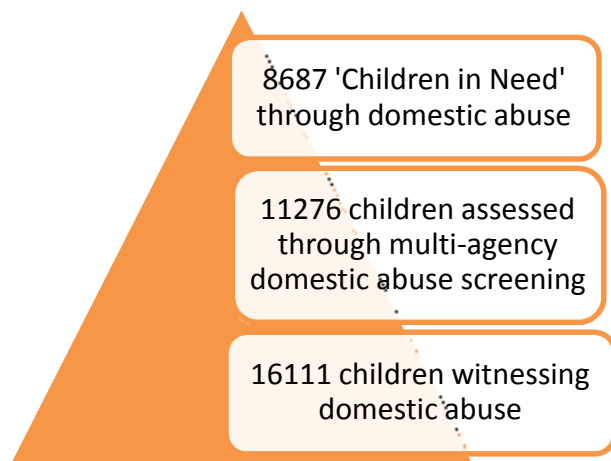
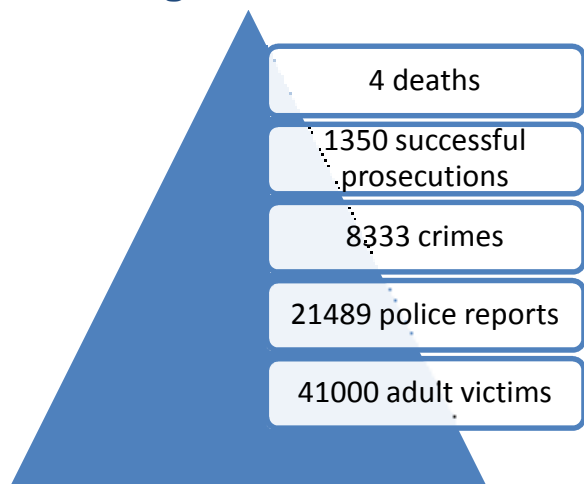
We recognise that some sectors of society can experience multiple forms of discrimination and disadvantage or additional barriers to accessing support. These include women and girls from Black and Minority Ethnic (BME) communities, lesbian, gay, bisexual and transgender (LGB&T) men and women and disabled people.

Facing additional barriers	
Black and Minority Ethnic (BME) women	Whilst there is no evidence that BME women experience higher levels of domestic abuse than the wider population, the abuse of BME women may be compounded by factors such as forced marriage and honour based violence or interfamilial violence. BME women may experience particular isolation from sources of support as a result of language, cultural isolation, experiences of racism and in some cases insecure immigration status. Suicide rates for many BME women are three times greater than the wider population. BME men and women who have physical or learning disabilities or who are LGBT have increased risk of forced marriage. Women with no recourse to public funds face particular barriers by being barred from access to most public services and often have to face a stark choice between violence and destitution. Providing the choice of specialist BME domestic abuse services can help overcome fears of racism and cultural isolation
Older women	Older women are less likely to identify their experience as domestic abuse, less likely to be economically independent of their partner, less likely to be aware of services available, more likely to be isolated through ill-health and less likely to seek help. When help is sought, their experiences are often seen as elder abuse which may
Disabled women	Disabled women are twice as likely to experience domestic abuse than other women and likely to endure domestic abuse for longer periods of time as a result of the barriers they face including isolation and reliance upon carers and caring arrangements. Few disabled women had ever sought help for the abuse and reported a lack of awareness, lack of trust of sources of support, self-blame, fear of loss of independence or believing they couldn't be
LGB&T	Gay and bisexual men face a significantly higher risk of partner violence from male partners and familial abuse. 49 per cent of gay and bisexual men have experienced domestic and familial abuse Up to 80 per cent of Transgender people have experienced domestic abuse. All LGB&T victims of domestic abuse face additional barriers in gaining support from actual or perceived homophobia and from greater potential isolation from family support and are less likely to seek support except from a dedicated

This strategy seeks to address the barriers that all people face in gaining support and protection and achieving the equality that is needed to end domestic abuse.

Statistics for Last Year

Domestic abuse in Birmingham is increasing



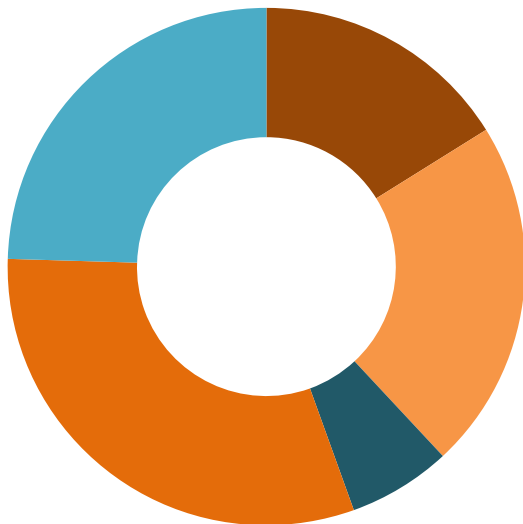
Over the last year, both the numbers of victims of domestic abuse and the demand for services have increased:

- Police reports of domestic abuse increased by 7%, domestic abuse crimes increased by 11% and most serious violence increased by 14%.
- The number of abusers prosecuted and convicted has increased but still only accounts for 16% of crimes reported.
- The number of high risk victims being dealt with at Multi-Agency Risk Assessment Conferences (MARACs) increased by 36%. The proportion of black and minority ethnic victims facing high risk is particularly increasing.
- The number of children being assessed through domestic abuse joint (multi-agency) screening increased by 29%.
- 77% of Children in Need in the city experienced domestic abuse

Previous strategies have sought higher reporting of this hidden crime, but they have also sought a reduction in the most serious of violence. Unfortunately both of these are increasing. Much of this local increase is consistent with the national picture which has seen violence against women increasing since the economic crash in 2009.

Cost of Domestic Abuse

Estimated Cost of Domestic Abuse to

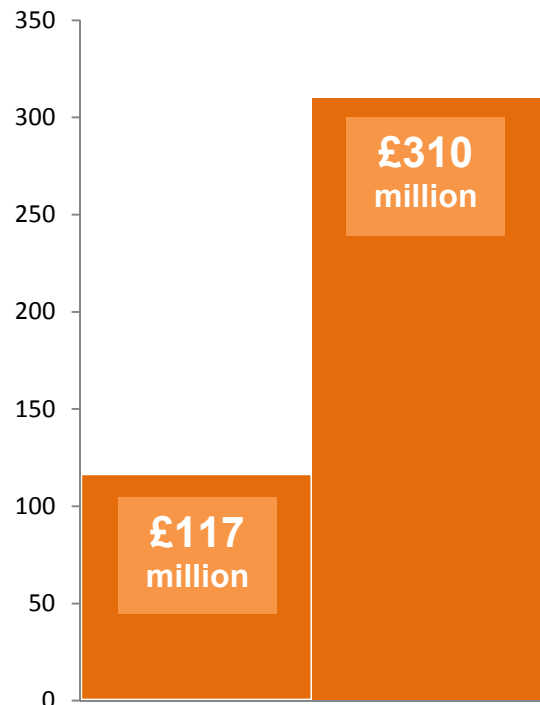


- £25m Criminal justice
- £34m Health
- £10m Social Care & Housing
- £48m Civil legal
- £38m Lost Economic Output

The annual financial cost of domestic abuse to Birmingham's services is estimated at £117million. However, domestic abuse has a serious and lasting impact on a victim's sense of safety, health, well-being and autonomy, and can severely restrict their ability, and their children's future ability, to fully participate in society. The combined service and human and emotional costs, increases this figure to an estimated £310million.

Birmingham currently spends heavily on the impact of domestic abuse, particularly in relation to health, policing and social care. By contrast, little investment is made in either prevention or early intervention in domestic abuse.

Estimated Cost of Domestic Abuse



Lessons from Domestic Homicide Reviews

Over the last five years, the Community Safety Partnership has reviewed every death in Birmingham through domestic abuse and examined what agencies knew; how they responded and how we could all work better in the future to prevent such deaths. The reviews have shown us that more needs to be done in the following areas throughout our services¹:

- We need to understand domestic abuse, not as a series of individual and violent incidents, but as a relationship of coercion and control affecting everything that the victim and the family does. This has been described as an abuser's "micro-management of everyday life".
- We need to ensure that our responses are safe, empowering and supportive to victims, and their children.
- We need to stop blaming the victim but understand the safety strategies that are being used and respond to the threat and control which the victim and family faces.
- We need to rethink how we keep children safe. At the moment, we rely too heavily upon an abused mother to keep her children safe and think too little about how we, as agencies, can keep the family safe. We need to empower our staff to know that they can make a difference without the need to take a child into care.
- We need to understand the threat that an abuser poses to those close to him. This is particularly true for mental health and substance misuse services who will often be working closely with an abuser and not want to jeopardise their relationship by enquiring too closely about domestic abuse.
- No matter what service we are responsible for delivering, we need to identify and ask about domestic abuse, and keep asking until it becomes routine for us and safe for victims to tell us.
- We need to stop domestic abusers from being invisible to our services and we need to control and manage them more effectively. Too often we are not tying up an abuser's history of violence with their current behaviour and then not being able to correctly identify the threat that the abuser poses.
- We need to make sure everyone knows where to go for help and recognise that many people face barriers to gaining the help and support they need.
- We need to listen to and act on disclosures from friends, families, colleagues and the wider community and seek help.
- We need to understand that domestic abusers are most violent when their victim tries to end a violent relationship or seeks help. The majority of our domestic homicides (intimate partners) have been killed when they have sought help or tried to leave. If a victim is taking these brave steps, we must wrap protection around them.

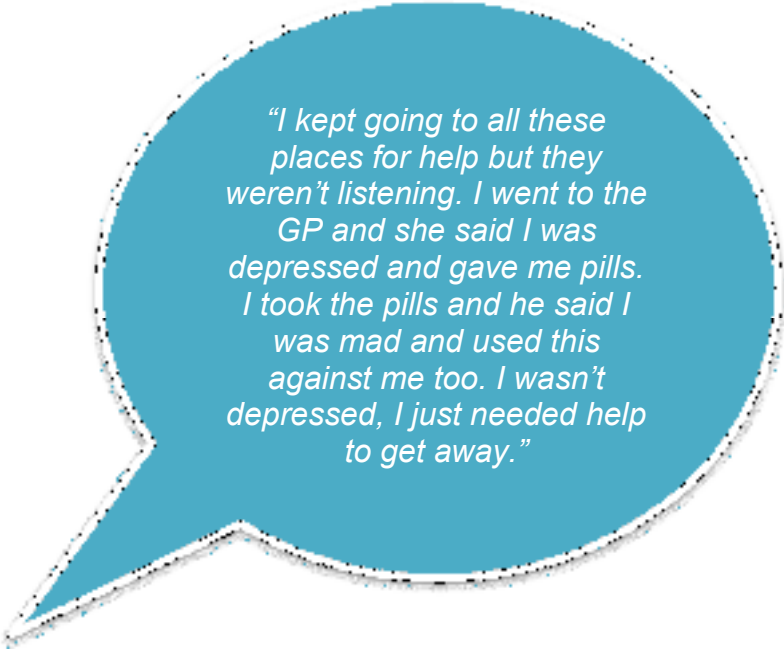
On the horizon

On the horizon, there are renewed challenges facing both victims and the services that they need. The city's services face unprecedented challenge as a result of austerity, welfare and social housing reform. The Needs Assessment accompanying this strategy demonstrates the impact that this has for individuals, particularly women and families experiencing domestic abuse.

¹ Dying to Tell You BCSP 2016

Part 2: What We Think

Over the autumn, we will be consulting widely on this draft strategy with people, practitioners and policy makers and your thoughts will populate these pages and help us shape the final strategy.



"I kept going to all these places for help but they weren't listening. I went to the GP and she said I was depressed and gave me pills. I took the pills and he said I was mad and used this against me too. I wasn't depressed, I just needed help to get away."

Citizen's Voice

Practitioner's Voice

Victim's Voice

Statement of Principles

As signatories to the West Midlands Domestic Violence and Abuse Standards,

- We will prioritise the safety of victims and their children in every aspect of decision making and intervention. We understand that victims and their children are at most risk when they end a violent relationship or seek help and will work to protect them when they do.
- We understand that without effective intervention domestic abuse often escalates in severity. We will make every effort to reach and identify adult and child victims earlier.
- We will treat victims with respect and dignity. We will listen to them and believe their experiences of violence; take seriously their concerns and seek to understand and strengthen their safety strategies.
- We will seek to gain informed consent from victims where possible when there is an intention to share information.
- We will respect confidentiality and privacy wherever possible and understand the increased risks associated with information sharing in the context of domestic violence and abuse.
- We will maximise choices for domestic abuse victims and empower them to make informed decisions about their lives wherever possible.
- We will actively work to develop competent services which are sensitive to the diverse range and needs of the individuals and communities we serve.
- We will send clear messages that perpetrators of domestic abuse are accountable for their behaviour and that victims are never to blame.
- We will work co-operatively with the range of services that victims and their children need.

Part 3 – What We Will Do

Vision

Birmingham aspires to be a city where everyone lives free from domestic abuse and expects equality and respect in their relationships.

To achieve this, Birmingham will:

- Strengthen its co-ordinated multi-agency response to domestic abuse and ensure that domestic abuse is identified and responded to effectively at the earliest opportunity.
- Prevent domestic abuse for our next generation by working with children and young people to build healthy relationship skills based on equality and respect
- Work with the wider community to ensure that domestic abuse is confronted and addressed in every aspect of Birmingham life so that victims have confidence to disclose and abusers will know that they will be held to account.

Shared Priorities

Domestic abuse affects every area of Birmingham life and every ambition for the city whether this is our people's health, education, safety and opportunity or our city's economy and community cohesion. Tackling domestic abuse is therefore a shared priority for each of our strategic partnerships in the city. Over the coming months, each of our strategic partnerships will be asked to agree their role in delivering against this strategy and their commitments will be declared here.

Priority 1: Changing Attitudes

We aim to prevent domestic abuse by challenging the attitudes and behaviours which foster it.

What outcomes do we want to achieve?



Increase in healthy relationship skills



Decrease in social tolerance of domestic abuse

Why changing attitudes is important?

It is clear from the surveys of attitudes of young people that our society has not progressed far in what to expect of a healthy and positive relationship and in ending domestic abuse. The availability and influence of on-line pornography is one of a number of factors influencing how boys and girls view each other as their own relationships take shape. It is important that we counter these messages and give young people a chance to value equality and respect in their relationships.

Schools are the first place we go to when we want to change attitudes but they themselves are under enormous pressure to prevent a range of social ills, ranging from childhood obesity, child sexual exploitation, bullying, teenage pregnancy, substance misuse to involvement in gangs. However, living with domestic abuse is all too often the cause of other concerns and this strategy needs to help schools identify when and how they can intervene and what impact this could have on their other responsibilities for school behaviour, attendance, attainment and safeguarding.

Birmingham's play and youth services have reduced significantly in recent times but they have been able to demonstrate very positive engagement with children and young people around positive relationships and this strategy needs to harness and spread the good practice from these initiatives.

Public awareness campaigns have been a feature of the city's landscape for many years and the local domestic abuse forums in the city have done much to engage with

local services to extend the reach of these campaigns. Every day scenarios can be the most successful in encouraging discussion and disclosure and in this way, much more could be done to reach into every aspect of Birmingham life, whether it be hairdressers and beauty salons or places of worship, with one clear message about domestic abuse.

We have seen that forced marriage and honour based violence continues to be a major concern for the city, particularly in respect of women, people with learning disabilities and the LGBT community and there have been a number of voluntary and community organisations working to raise awareness and to challenge the practices. This strategy will support voluntary and community organisations in their engagement with those communities affected and share the best practice from the recent project of community engagement around female genital mutilation.

One area of Birmingham life which has not had multi-agency attention is the workplace. For some workers, their work may be the one place that they can still feel like themselves and won't want their employer to know. For many others, their abuser will threaten them at work and their abuse may stop them doing their job as they would want to. Employers need to create safe spaces for employees to disclose with confidence that they will be supported and where they are abusers themselves, for their behaviour to be challenged. Whilst some agencies have policies for supporting workers experiencing domestic abuse, through this strategy we will encourage all major employers across the city to adopt a common approach.

We will do this by:

- Widening community engagement and public awareness of domestic abuse by encouraging community led preventative approaches, working closely with community and voluntary organisations and faith groups
- Seeking non-traditional sources of awareness raising (such as hairdressers/ beauty salons/vets/ supermarkets)
- Refreshing guidance to schools and youth settings on dealing with domestic abuse
- Engaging with schools to agree a Birmingham-wide whole school approach to domestic abuse through strengthening equality and respect
- Providing targeted community engagement around forced marriage and honour based violence and with victims currently under-represented in services such as disabled people and LGBT people.
- Developing a workplace standard and encourage Birmingham wide adoption of workplace policies on domestic abuse.

Priority 2: Early Help

We aim to intervene early to prevent harm and reduce the impact of domestic abuse on victims and families

What outcomes do we want to achieve?



**Domestic abuse is identified earlier.
Domestic abuse victims (adults and
children) are able to recover from
abuse**



**Escalation and harm from domestic
abuse is reduced**

Why early help is important

Recent research has shown that compounded adverse childhood experiences (ACES)² such as domestic abuse, parental substance misuse, child abuse and neglect have a tremendous impact on an individual's lifelong health and opportunity. The need for interventions to ensure that children have safe, stable, nurturing relationships and environments is all the more evident.

Likewise, evidence of the nature of domestic abuse highlights that when left unchecked and without intervention, the scale and severity of domestic abuse normally increases. It follows that the earlier agencies engage and provide safe options for victims and children, the better.

Our domestic homicide reviews have helped us identify places that have not traditionally been referral points for domestic abuse, such as GP practices and hospital emergency departments. These are places that victims frequently use and meet with professionals that they often already trust.

Our partner agencies are considering how their routine work could help identify and support those victims of domestic abuse who have not yet sought help. For example,

² <http://www.rwjf.org/en/library/infographics/the-truth-about-aces.html>

our Fire Service attends over 27,000 homes per year undertaking safe and well visits and is now training its staff to identify and respond safely to domestic abuse.

But responding effectively to domestic abuse at the ‘front door’ requires a good system behind the scenes so that all services know, not just how to respond themselves, but what to do next, knowing who to refer to and there being services available to refer into when they are needed. We refer to these as **care pathways**.

Transforming and Mainstreaming Practice

We often hear about the need to transform our responses to an issue and recommending transforming practice in domestic abuse may seem like yet another change required of change-weary services. However, empowering our statutory services to respond better and earlier to domestic abuse may be the one thing that makes all the other changes possible.

We have seen in the Needs Assessment that domestic abuse is core business for all of our services. For the police it represents 33 per cent of assaults with injury; for children’s services, domestic abuse is a feature for 77 per cent of children in need; for health services victims and families are needing to deal with the health consequences of abuse without ever revealing the cause; domestic abuse accounts for 22 per cent of all homelessness. In this way, how we respond to domestic abuse makes or breaks every other system.



Transforming our response to domestic abuse means that there should be ‘*no wrong door*’ for domestic abuse and relies upon a new approach and an increased commitment to:

- Understanding the nature of coercive control and how to engage better with those experiencing domestic abuse
- Understanding the gendered nature of most domestic abuse
- Creating safe environments for disclosure
- Early identification through routine and direct questioning
- Workforce development through training, supervision and management to understand and respond to domestic abuse better

- Familiarity with risk and threat assessment and understanding the fluid nature of risk in domestic abuse
- Having clear pathways to specialist support for victims
- Creating an empowering, person-centred culture rather than an agency-centred culture
- Recognising the role of the specialist domestic abuse services which is critical, but not exclusive, in this model.

We will do (this) by:

Removing barriers to safety through:

- Introducing an '**Ask Me**' scheme where a victim can disclose abuse in places that she trusts and where staff have been trained to provide an initial safe response. This could be any service from dentists to housing to school support.
- Expanding early identification and early help with **trusted professionals** such as Birmingham's GPs with care pathways following to specialist services for those that need them
- Mapping of Birmingham's domestic abuse care pathways across our services to improve and optimise their effectiveness
- Developing service specific best practice guidance, pathways and toolkits to support front-line delivery

Transforming and Mainstreaming Practice through:

- Providing a city wide workforce development plan featuring the lessons from domestic homicide reviews and providing standardised learning outcomes for all domestic abuse and forced marriage training provided to agencies working with children, adults and families. Working with our safeguarding boards to prioritise agency roll out of workforce development through Section 11 (children) and Section 175 (schools) and annual assurance statements (adults)
- Supporting the development of a 'Hub'-style model for domestic abuse as well as reviewing how each of the city's Hubs respond to domestic abuse.
- Supporting the Social Emotional and Mental Health Pathfinder which seeks to transform education for children and young people with multiple needs, including domestic abuse
- Ensuring that victims with multiple needs receive the unified support they need by mental health, substance misuse and domestic abuse services sharing skills and developing their approaches together.
- Evaluating the child to parent abuse pilot currently being undertaken in Youth Offending Service with a view to extending the programme across wider services

For Consultation

- Defining what works and what is safe practice for 'whole family' approaches to domestic abuse such as 'Think Family'
- Developing an integrated and multi-agency commissioning model in line with the government's forthcoming guidance (National Statement of Expectations) and which strikes the balance between provision of high risk protection and support for victims and children with earlier intervention and recovery models for both adults and children.

Priority 3: Safety & Support

We aim to ensure that victims and children are safe and protected from harm

What outcomes do we want to achieve?



Increase in number of adult and child victims who feel and are safe



Reduction in the risk of harm from domestic abusers

Why safety and support is important?

The recent review of domestic abuse in the city found that we were placing too much reliance upon victims to keep themselves and their children safe and insufficient focus on managing the behaviour of domestic abusers, both through criminal justice and through child and adult safeguarding. Abusive fathers often remain invisible in child protection proceedings although they are often the ones creating the risks. To reduce the number of domestic abuse victims, abusers must be challenged to change their behaviour through effective enforcement, deterrence and management.

Recent changes in the law such as the introduction of coercive control, Domestic Violence Protection Orders and extension of anti-social behaviour powers and the requirement for probation services to work with all offenders irrespective of the length of their sentence, each pave the way for our strengthened response to managing abusers. West Midlands Police have provided a welcomed commitment to actively 'manage' over 600 high risk, serial or repeat domestic abusers. However, many of our agencies are well placed to help the police either by having powers to take action themselves, or by working together to make sure that actions work. For example housing providers can take injunctions against abusers for anti-social behaviour and evict abusers from social housing and domestic violence services can support victims to gain injunctions.

At the same time, it is important that victims and children are supported and protected whilst heightened action is taken against their abusers. The focus on early intervention cannot be at the cost of those that we know to be facing high risk now and a balance of activities taken to stem the escalation of risk and effectively manage the risk when it is known.

Steps have been recently taken to strengthen our Multi-Agency Risk Assessment Conference (MARACs) which deal with high risk cases of domestic abuse. These steps have included introducing governance and accountability; investment in administration and encouraging agencies other than the police to refer their high risk cases. The Needs Assessment Update identifies that Birmingham still has low overall numbers, fewer disabled victims and fewer LGBT victims dealt with through MARAC than our population would expect. The introduction of more robust domestic abuse offender management provides an opportunity to strengthen the relationship between MARAC, child protection and offender management and enable a holistic approach to keeping families safe. However, in order to put MARACs on a footing with other well-functioning areas, investment in co-ordination is also required.

The drive to establish a more coherent, consistent and co-ordinated approach to managing domestic violence abusers across our agencies and minimising their harm may be a uniting factor across public services. However, this response does not just lie in the management of our highest risk or serial abusers: it begins with the first response of our front-line agencies whether police, housing, social workers or community based services:

- taking domestic abuse seriously and not minimising the abuse
- recognising factors of coercive control
- identifying the risk
- not relying on victims to manage the risk alone, particularly when separation is increasing this risk
- assuming the victim will not support prosecutions: collecting evidence robustly and maximising use of third party reporting
- all agencies identifying previous violent history of the abuser and sharing information with the police
- using each agencies' powers, whether in housing, legal, children's or adult's services, to protect victims and children
- understanding the predominantly gendered nature and impact of domestic abuse

We will provide safety and support by:

- Developing a new way of working which strengthens our focus on domestic abusers and that is capable of dealing with abusers at the earliest opportunity as well as when behaviour becomes more entrenched. This will involve developing a multi-agency framework for managing domestic violence abusers and offenders capable of managing, diverting, disrupting and wherever possible prosecuting abusers, each undertaken with the aim of protecting adult and child victims of domestic violence
- Strengthening the relationship between multi-agency public protection systems, particularly MARAC, DV Tasking, Child Protection and Integrated Offender Management, actively involving all social landlords, children's services and partner agencies
- Establishing clear pathway for civil interventions

- Drawing on good practice from other areas, such as Strathclyde Multi-Agency Risk Assessment Partnership and Islington Persistent Perpetrator Panel
- Supporting the commissioning and roll-out of perpetrator programmes in line with *RESPECT* accreditation
- Guaranteeing an independent support service for all victims at high risk
- Strengthening multi-agency services for high risk:
 - Agreeing a common tool across agencies for assessing risk and threat from domestic abuse, following the outcome of the review being undertaken by the College of Policing.
 - Increasing the numbers of agencies with targeted staff able (with training and care pathways in place) to identify high risk
 - Increasing multi-agency referrals to MARAC from child protection agencies beyond the police
 - Establishing secure case management information system for MARAC
 - Sustaining and where possible extending refuge provision in the city
 - Being clear that services cannot keep victims and children safe without addressing their other needs
 - Being clear that targeting of services **only** to high risk, fails to recognise the fluid nature of risk. Only 2 of our 21 deaths in the last 5 years had been assessed as high risk.

How will we know that we are getting it right?

Performance Dashboard

Prevention: Changing Attitudes

- Number of schools committed to a whole school approach to promoting healthy relationships and West Midlands Domestic Abuse Standards
- Increase reporting to domestic abuse helpline
- Increase reporting of domestic abuse (and sexual violence) to police
- Increased reporting of forced marriage to police
- Increased reporting of honour based violence to the police
- Increased number of organisations with workforce policies on domestic abuse

Prevention: Early Help

- Increased number of referrals to domestic abuse services from range of services, including mental health, primary care, Accident and Emergency services, safeguarding adults, substance misuse and housing services
- Increased number of adults receiving specialist domestic abuse support, particularly from under-represented groups such as older women, disabled women and LGBT victims
- Increased number of children receiving specialist domestic abuse support (Increased provision for children's recovery)
- Reduced number of children experiencing domestic abuse admitted to care
- Reduced number of children in need experiencing domestic abuse
- Clearly defined Birmingham budget across agencies capable of securing care pathways from early identification, maintaining refuge provision and meeting diverse needs through targeted services to under-represented or vulnerable groups

Prevention: Harm Reduction through Safety and Support Measures

- Reduced deaths through domestic abuse
- Reduced domestic abuse related attempted murders
- Reduce 'most serious' domestic abuse related violent crime
- Reduced repeat domestic abuse offenders
- Reduced serial domestic abuse offenders
- Reduced high risk domestic abuse offenders
- Increased proportion of police reports of domestic abuse that are treated as crimes
- Increased proportion of domestic abuse related arrests
- Increased number of finalised domestic abuse cases (Birmingham Court)
- Increased proportion of domestic abuse cases successful (Birmingham Court)
- Increased use of civil orders
- Increased use of restraining orders (Birmingham Court)
- Increased use of Domestic Violence Protection Orders
- Increased Forced Marriage Protection Orders
- Increased use of sanctuary scheme
- Reduced repeat homelessness (through prevention and early intervention)
- Reduced use of bed and breakfast for domestic abuse victims and children
- Increased numbers of domestic abuse victims and families rehoused through social landlords protocol (rather than homelessness)
- Increased multi-agency referral to MARAC
- Independent specialist support available to 100% high risk victims

Further Information

Evidence to support the data and findings of this prevention strategy are included in the following supportive suite of documents available at www.birminghambeheard.org.uk

- Birmingham Domestic Violence and Abuse Needs Assessment (published 2013)
- Birmingham Domestic Violence and Abuse Needs Assessment Evidence Update (July 2016)
- Domestic Abuse Prevention Strategy Interim Equality Assessment (full assessment available September 2016)
- Birmingham City Council Social Cohesion and Community Safety Scrutiny Committee Working with Communities to Prevent Relationship Violence (2015)

ⁱ Birmingham City Council (2015) Working with Communities to Prevent Relationship Violence

(CONSULTATION DRAFT) Birmingham Domestic Abuse Prevention Strategy 2017-2020

Vision: Birmingham aspires to be a city where everyone lives free from domestic violence and abuse

To achieve this, Birmingham will:

- Strengthen its co-ordinated multi-agency response to domestic abuse and ensure that domestic abuse is identified and responded to effectively at the earliest opportunity.
- Prevent domestic abuse for our next generation by working with children and young people to build healthy relationship skills based on equality and respect
- Work with the wider community to ensure that domestic abuse is confronted and addressed in every aspect of Birmingham life so that victims have confidence to disclose and abusers will know that they will be held to account.

	Outcome	Action	Measure	Target	Responsible Partnership & Alignment to Strategic Plan
Changing Attitudes	Increase in healthy relationship skills	<ul style="list-style-type: none"> Promote healthy relationship programmes and whole school approaches with schools, colleges, youth settings and universities Support the development of curriculum materials on violence against women and girls 	<ul style="list-style-type: none"> Number of schools committed to a whole school approach and West Midlands Domestic Abuse Standards 	Increase	BHWBB: make children in need safer BEHP: children and young people able to attend, learn and maximise their potential at school; young people ready for and able to contribute to adult life
	Decrease in social tolerance of domestic abuse	<ul style="list-style-type: none"> Widen public awareness campaigns and community engagement encouraging community led preventative approaches working closely with community and voluntary organisations and faith groups Targeted engagement around forced marriage and honour based violence Targeted engagement with under-represented groups including LGBT victims and disabled women Introduce 'Ask Me' schemes for safe disclosure in everyday settings Introduce domestic abuse workforce policies across the city 	<ul style="list-style-type: none"> Victims seeking advice from domestic abuse helpline (and diversity) Police reports of domestic abuse, forced marriage and honour based violence Number of organisations with workforce policies 	Increase Increase Increase	BCSP: Deterrence and Prevention
Early Help	Domestic abuse is identified early and escalation prevented	<ul style="list-style-type: none"> Transformation of mainstream approach to domestic abuse including city wide workforce development plan accompanied by best practice guidance and toolkits Introduce early identification and referral pathways with 'trusted professionals' and across health and social care settings Support the Social Emotional & Mental Health Pathfinder Support cross-over workforce development between domestic abuse, substance misuse and mental health 	<ul style="list-style-type: none"> Children experiencing domestic abuse admitted to care Children in need experiencing domestic abuse Referrals to DA services including mental health, primary care and A&E, safeguarding adults, substance misuse and housing services 	Reduce Reduce Increase	BCSP: Deterrence and Prevention BHWBB: make children in need safer
	Domestic abuse victims (adults and children) are able to recover from abuse	<ul style="list-style-type: none"> Directly support recovery from abuse for victims and their children Develop Domestic Abuse Hub style model and review how each of the city's hubs respond to domestic abuse Integrated multi-agency commissioning Evaluate for potential roll-out of child to parent abuse programme 	<ul style="list-style-type: none"> Numbers of adults receiving DA specialist support particularly from under-represented groups such as older women, disabled women and LGBT victims Numbers of children receiving DA specific support Clearly defined Birmingham budget across agencies capable of securing care pathways from early identification, protecting refuge provision and meeting diverse needs through targeted services to under-represented or vulnerable groups 	Increase Increase	BHWB: Improve the wellbeing of vulnerable children BEHP: Healthy, happy and resilient children living in families BCSP: Supporting the Vulnerable
Safety and Support	Reduction in risk of harm from domestic abusers	<ul style="list-style-type: none"> Develop an multi-agency abuser management framework of co-ordinated multi-agency action to prevent abusers continuing to harm Support commissioning of RESPECT accreditable perpetrator programmes 	<ul style="list-style-type: none"> Number of high risk, serial and repeat DA offenders Number of successful prosecutions Number of civil orders, restraining orders, Domestic Violence and Forced Marriage Protection Orders, sanctuary schemes 	Reduce Increase Increase	BCSP: Prevention and deterrence BEHP: Families make positive changes to their behaviour
	Domestic abuse victims (adults and children) feel and are safe	<ul style="list-style-type: none"> Strengthen multi-agency services for high risk and high need including homeless prevention and refuge Strengthen relationship between public protection processes of MARAC, child protection, DV Tasking and Integrated Offender Management 	<ul style="list-style-type: none"> Number of deaths, attempted murders and most serious violence through domestic abuse Number of repeat homelessness through DA Number of DA households in B&B Number of moves through DA between social landlords Multi-agency referral to MARAC Proportion of high risk victims receiving independent support 	Reduce Reduce Reduce Increase Increase 100%	BCSP: Supporting the Vulnerable BHWBB: reduce statutory homelessness BEHP: children and young people protected from significant harm

	<u>Agenda Item: 10</u>
Report to:	Birmingham Health & Wellbeing Board
Date:	29th November 2016
TITLE:	AIR POLLUTION AND HEALTH IN BIRMINGHAM
Organisation	Birmingham Health and Wellbeing Board
Presenting Officer	Adrian Phillips/Wayne Harrison

Report Type:	Decision
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1. Purpose:
1.1. To update the Board of the threat posed by poor air quality due to outdoor air pollution in Birmingham on health as well as to the local economy.

2. Implications:		
BHWP Strategy Priorities	Child Health	Y
	Vulnerable People	Y
	Systems Resilience	Y
Joint Strategic Needs Assessment		Y
Joint Commissioning and Service Integration		Y
Maximising transfer of Public Health functions		Y
Financial		
Patient and Public Involvement		
Early Intervention		Y
Prevention		Y

3. Recommendation
It is recommended that the Board:
3.1 Consider adverse outdoor air quality as a theme in its strategy.
3.2 Supports the improvement of air quality by reducing air pollution as a collective priority
3.3 Receives an update in future meetings

4. Background

4.1 Outline of the problem

- 4.1.1 Man-made outdoor air pollution in Birmingham causes just under 900 deaths per year. It is second only to tobacco-smoke as an avoidable cause of early mortality. Most deaths are due to Stroke and Coronary Heart Disease. It has a harm profile remarkably similar to that caused by tobacco smoke.
- 4.1.2 Unlike the “smogs” of the 1950s, today’s air pollution is mainly unnoticed without special equipment or in extremes. It is caused by two main factors. The first are the very small particles in the air – like smoke but smaller. They are measured in microns and are less than 10 µm in diameter and are known as Particulate matter or PM. The two most common measures are PM 10 and PM2.5. The other main pollutant is oxides of Nitrogen, NO_x, especially NO₂.
- 4.1.3 Both these pollutants are mainly created from the internal combustion engine, especially those powered by diesel fuels. Vehicular road traffic causes the greatest effect. Electric cars as well as other vehicle types do not produce such pollutants.
- 4.1.4 Outdoor air pollution has attracted attention due to increased evidence of its negative health impact. Five areas in the United Kingdom (UK), including Birmingham, exceed European Union (EU) legal limits. The result is a risk of a financial fine, a requirement upon the City Council to declare itself an Air Quality Management Area and implement an action plan to reduce air pollution in a timely manner.
- 4.1.5 Birmingham City also performs poorly according to its Public Health Outcome Framework. Pollution undoubtedly also affects Respiratory Health, an area which all Birmingham CCGs have as an adverse indicator.
- 4.1.6 Birmingham City Council is developing an action plan in line with the requirements but the scale, severity and nature of the threat requires a coordinated, multiagency response.

4.2 Defining the threat of air pollution

- 4.2.1 Birmingham City Council must coordinate a local response to reduce levels of NO₂ to a yearly average of less than 40µg/m³ to deliver compliance with the EU Air Quality Directive. Whilst this target is consistent across the EU, some regions, Scotland for instance, have set much lower – less than half that for England - targets for some gases.
- 4.2.2 The most evidence exists for PM_{2.5}, which is why Public Health England currently benchmark on this measure; in the most recent reporting period Birmingham had an average PM_{2.5} of 11.4µg/m³ compared to an England average of 9.9µg/m³.
- 4.2.3 A UK expert panel investigating the health impact (‘COMEAP’) has declared there are no safe limits for PM_{2.5} and NO₂; every 10µg/m³ increase in PM₁₀ is

associated with a 6% increase in all-cause mortality and every $10\mu\text{g}/\text{m}^3$ increase in NO_x is associated with a 2.5% increase in all-cause mortality.

- 4.2.4 The EU targets and Air Quality Index advice are not representative of the full impact on health or the cost of not reducing levels below the current thresholds.

4.3 Impact on health

- 4.3.1 In Europe air pollution is the biggest environment risk factor for premature death. While other components of air pollution mentioned above damage health, particularly at high levels of exposure, the strongest evidence for harm caused by lower levels is the effect of long-term population wide exposure to $\text{PM}_{2.5}$ and NO_2 .

- 4.3.2 In the UK, $\text{PM}_{2.5}$ is responsible for 29,000 premature deaths annually and NO_2 is associated with 23,500 deaths, based on current outdoor air pollution. A $10\mu\text{g}/\text{m}^3$ reduction in $\text{PM}_{2.5}$ pollution alone would have a larger impact on life expectancy in England and Wales than eliminating road traffic accidents or passive smoking.

- 4.3.3 There is strong evidence for the impact of short and long-term exposure to $\text{PM}_{2.5}$ on cardiovascular health, reduced lung function and heightened severity of symptoms in individuals with:

- Asthma
- Chronic Lung Disease
- Ischaemic Heart disease
- Stroke

- 4.3.4 Emerging evidence also suggests an effect of $\text{PM}_{2.5}$ on children if their mothers were exposed to higher levels during pregnancy, with links to adverse birth outcomes (low birth weight, preterm birth, premature, neurodevelopmental harm, small for gestational age), airway inflammation and increased susceptibility to respiratory infection.

- 4.3.5 Children living in more polluted environments based on measures of $\text{PM}_{2.5}$ are more likely to experience asthma symptoms, have low lung function and are more vulnerable to Chronic Obstructive Pulmonary Disorder (COPD-a lung disease) in adulthood.

- 4.3.6 Long term exposure to $\text{PM}_{2.5}$ throughout life has also been associated with increased risk of obesity, diabetes, cognitive function including Dementia and social isolation.

NO_2 is a part of the same air pollution that $\text{PM}_{2.5}$ is found in and has a separate and additional impact on health; high acute levels are associated with respiratory morbidity, hospital admissions and emergency visits for cardiovascular and/or cardiac diagnoses and mortality. Chronic exposure has been associated with reduced lung function in children and adults, respiratory infections in early childhood including bronchitis, cancer and adverse birth outcomes.

4.3.7 The full extent of these impacts across a person's life such as the effect on quality of life, school attendance and absence from the workforce are not yet fully quantified but some studies have attempted to measure these wider impacts.

4.4 Wider impacts of air pollution and potential benefits of addressing it

4.4.1 Addressing outdoor air pollution is not only a matter of risk avoidance; there is health, social and economic benefits to doing so. There is strong evidence that reducing air pollution increases life expectancy, reduces health inequalities and reduces morbidity for people living with respiratory and cardiovascular conditions in particular.

4.4.2 Evidence also suggests benefits that include increased productivity (e.g. workforce productivity), improved school attainment (through reduced school absence, improved concentration, reduced behavioural disorders), reduced obesity and sedentary behaviour through increases in physical activity (children living with asthma and adults who are obese).

4.5 Vulnerable groups

4.5.1 There are some groups who are more exposed to outdoor air pollution and some that are more likely to experience ill health effects when exposed. Certain occupational groups have an increased exposure, including those who work outside close to traffic pollution. People who spend more time than average in environments with higher levels of air pollution such as long distance commuters, taxi, bus and lorry drivers. One study showed taxi and bus drivers are exposed to three times the levels of outdoor air pollution in their vehicles.

4.5.2 People living in areas of deprivation may not necessarily have increased exposure to outdoor air pollution compared to the general population, although this is the case in some areas. The major concern is that this population group experience a magnified effect as a result of often living in poor housing conditions with greater exposure to pollutants and also experience higher levels of chronic stress, which reduces the bodies resilience to toxicants.

4.5.3 Groups at higher risk of adverse health outcomes due to air pollution include:

- Pregnant women and the unborn child
- Children in high pollution areas are four times more likely to have reduced lung function when they become adults
- For older adults the risk of death from PM₁₀ exposure is twice that of younger populations
- Adults with pre-existing medical conditions are at increased risk of serious adverse health events such as asthma attack, stroke and heart attack.

4.6 Options to progress the matter

4.6.1 There are several different tactics which could be employed in addressing air pollution:

Immediate steps to cut local pollution include reducing internal combustion traffic, especially diesels.

4.6.2 Medium term options include reducing the number of polluting engines

4.6.3 Long term approaches depend on the above as well as rebalancing our society away from a reliance on the car and motorized transport

4.7 Conclusion

4.7.1 As described in a recent article in the British Medical Journal “The NHS has borne the brunt of costs associated with air pollution and will benefit directly from improved air quality. For that reason alone the health sector should take a more active role in the decision making process that drives change.” BMJ, 29th October 2016.

4.7.2 Air pollution is a major determinant of Health and Wellbeing and merits the attention of the Health and Wellbeing Board.

5. Compliance Issues

5.1 Strategy Implications

Health and Wellbeing Board priorities

Vulnerable people:

- Improve the wellbeing of vulnerable children – potential impact on school attainment, evidence particularly for children living in poverty, reduce cases of asthma and ill health by those with the condition.
- Older people to remain independent, reducing hospital admissions.

Child Health:

- Reducing childhood obesity: there is some evidence that experiencing asthma reduces participation and enjoyment of physical activity for children with asthma. Reduces activity levels increases the risk of obesity.
- Reducing infant mortality: air pollution has been associated with low birth weight at term, small for gestational age and preterm birth, all of which are risk factors for infant mortality.

System Resilience

- Common NHS and Local Authority approaches: the matter of air pollution has impacts for health, welfare and social care usage as well as potential workforce productivity losses for both agencies and their supply chain, through working days lost and attendance at work when feeling unwell as well as reduced efficiencies because of road congestion impacting upon trade and staff mobility. In addition, both agencies have authorities to take action to

reduce road traffic and mitigate the impact such as standards for supply chain, implementation of local policy, public awareness raising, improving local infrastructure such as transport.
5.2 Governance & Delivery
A legal requirement not to exceed statutory levels A representative of the CCG to be invited to the local Air Quality Board
5.3 Management Responsibility
Feedback to the HWBB through the DPH and Cabinet members (as a corporate council responsibility)

6. Risk Analysis			
Likelihood: 0 = will never happen; 4 = definite outcome Impact: 0 = no impact; 4 = death/legal challenge			
Identified Risk	Likelihood	Impact	Actions to Manage Risk
Premature mortality	3	4	
Morbidity among people with respiratory and cardiovascular conditions	4	3	
Morbidity among children living in poverty and children with respiratory conditions	3	3	

Appendices
Presentation Slides – Health Effects of Air Pollution in Birmingham

Signatures	
Chair of Health & Wellbeing Board (Councillor Hamilton)	
Date:	

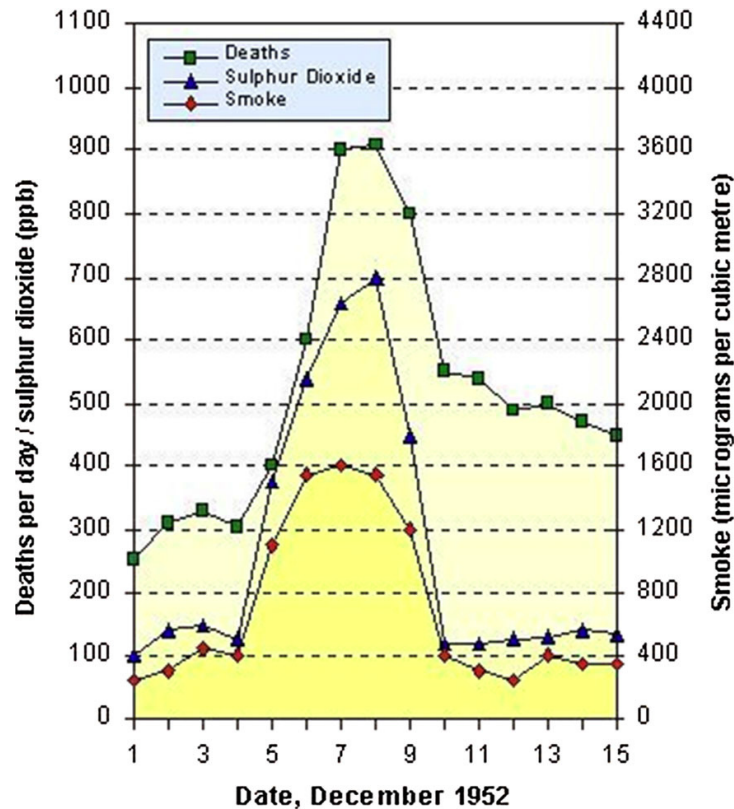
The following people have been involved in the preparation of this board paper:

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Health Effects of Air Pollution in Birmingham

Historical Air Pollution

- Typified by acute increases in smoke and SO₂
- 1952 London smog
 - Worst air pollution disaster in UK history
 - Enormous increase in respiratory and cardiovascular complications
 - 4000–12,000 deaths





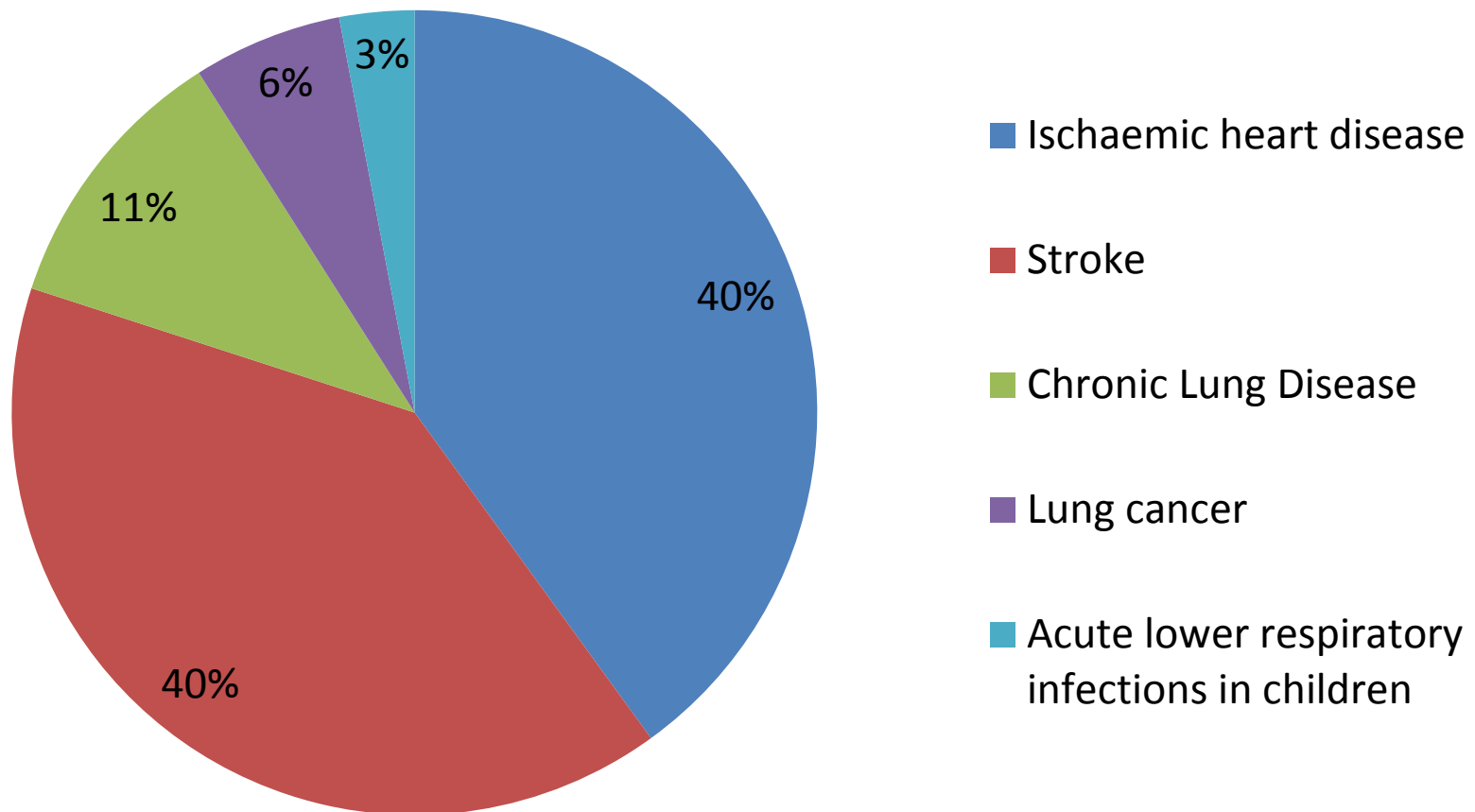
Modern-day Air Pollution

- Acute smog events can still occur
 - Exacerbate chronic conditions
- Concern now is invisible pollutants, indiscernible at ground level. Those with most evidence of health harm are:
 - Nitrogen oxides
 - Ozone (O₃)
 - Exceptionally small particulate matter (PM₁₀ and the more abundant PM_{2.5})
- Outdoor air pollution largely due to road traffic
 - UK road traffic 10 times higher in 2012 than 1949
 - Increased use of diesel vehicles from 14% to 50% between 2000 – 2014 in the UK
- Smaller particles are more complicated! (temperature, micro-climate, etc..)

Global Impact of Air Pollution

- Air pollution has overtaken poor sanitation and a lack of drinking water to become the main environmental cause of premature death
- In 2012, approximately 3.7 million people died from outdoor air pollution (WHO 2014)
- In Europe, air pollution is the biggest environment risk factor behind premature death (EEA 2014)
- Indonesia fires – 100,000 XS deaths in 2015!

Air Pollution Deaths



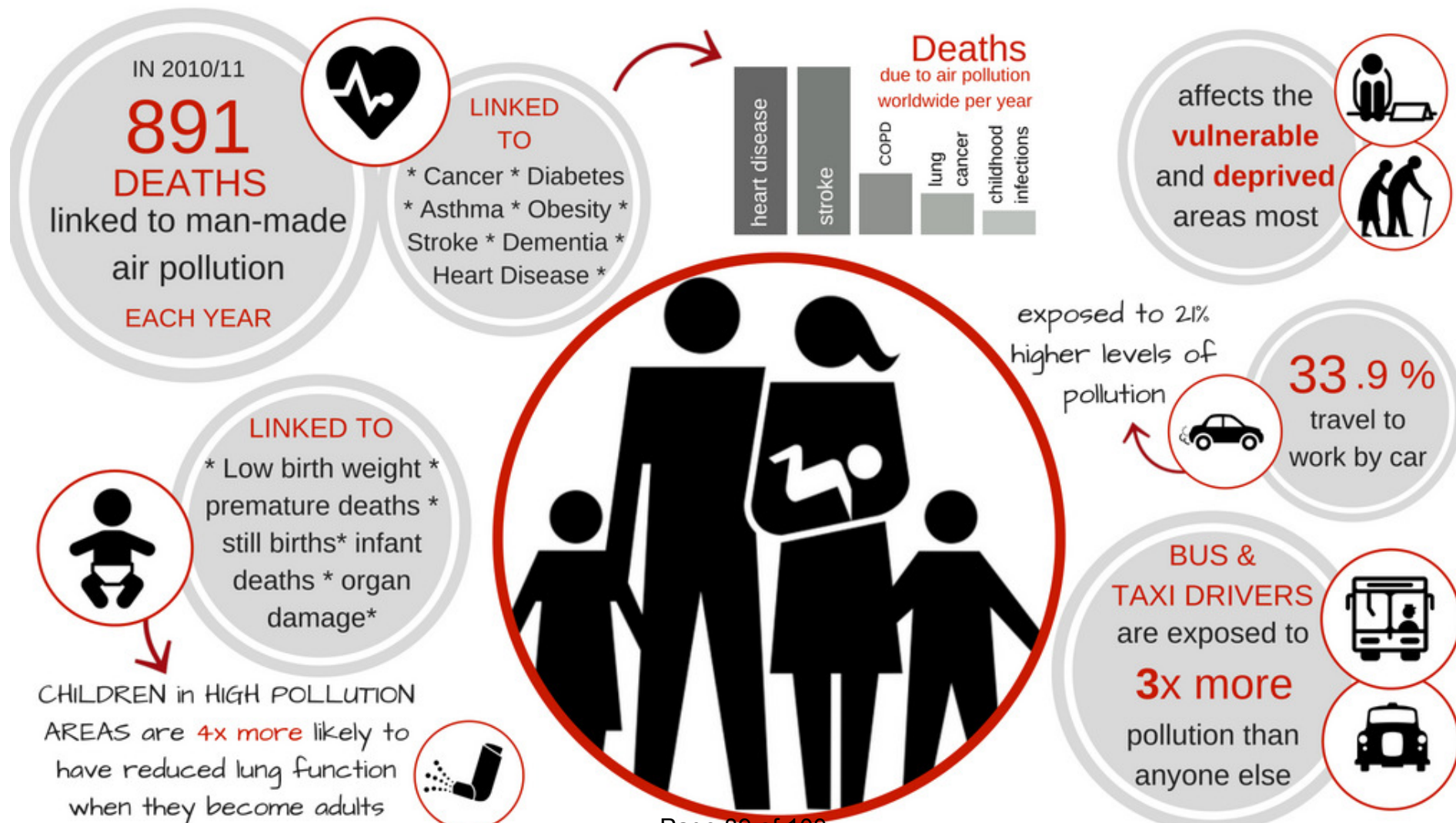
Air Quality Standards

- There are standards set for a number of pollutants
 - SO_2 , NO_x , PM, Pb, CO, Benzene, Ozone
- The main focus is on:
 - NO_2 – basis of the Clean Air Zone
 - $\text{PM}_{2.5}$ – linked to mortality in the Public Health Outcomes framework
- Vehicle emissions are the major source of both NO_2 and $\text{PM}_{2.5}$
- Both are linked to a range of health effects

Impact on Health

- In the UK PM_{2.5} air pollution by itself is responsible for at least 29,000 premature deaths
- UK wide estimated some 23,500 deaths annually on the basis of NO₂ concentrations
- A 10 µg/m³ reduction in ambient PM_{2.5} pollution would have a larger impact on life expectancy in England and Wales than eliminating road traffic accidents or passive smoking (IOM 2006).

EFFECTS OF AIR POLLUTION



Cardiovascular & Respiratory Disease

Strong evidence for impact of short and long-term exposure to PM_{2.5} on cardiovascular health:

- Reduced lung function
- Heightened severity of symptoms in individuals with:
 - Asthma
 - COPD
 - Ischaemic heart disease
 - Stroke
- **Remarkably similar to harm caused by tobacco smoke**

Emerging evidence for PM_{2.5}

- Exposure in pregnancy
 - Airway inflammation
 - Increased susceptibility to respiratory infections
- Exposure in childhood
 - Increase in asthma symptoms
 - Low lung function
 - Vulnerability to COPD in adulthood

New Health Outcomes

- Emerging evidence linking long-term exposure to PM_{2.5} with:
 - Adverse birth outcomes
 - Low birth weight at term
 - Small for gestational age
 - Preterm birth
 - Neurodevelopmental harm
 - Miscarriage
 - Diabetes
 - Obesity
 - Cognitive function (?Dementia)
 - Social isolation

NO₂ Health Outcomes

An independent effect of NO₂ has also been found that is additional to PM_{2.5} effects and has both immediate and long term effects:

- Acute exposure:
 - respiratory morbidity,
 - hospital admissions and emergency visits for cardiovascular and/or cardiac diagnoses,
 - mortality due to the effect of associated compounds
- Chronic exposure;
 - Reduced lung function in children and adults
 - Respiratory infections in early childhood including bronchitis
 - Cancer incidence
 - Adverse birth outcomes

Potential Vulnerable Groups

Some groups are at higher risk of exposure to outdoor air pollution:

- Certain professional groups:
 - Taxi and bus drivers are exposed to 3x more pollution than anyone else
 - Urban based traffic police
 - Street cleaners
- Deprivation

Potential Susceptible Groups

Some groups are more susceptible to adverse outcomes following exposure:

- Pregnant women and the unborn child
- Children in high pollution areas are 4x more likely to have reduced lung function when they become adults
- Older adults: risk of death from PM₁₀ exposure twice that of younger populations
- Adults with pre-existing medical conditions
 - Aggravate asthma
 - Increase risk of adverse health events

Safe Levels

- There are none
 - There is no threshold below which there would be no impact on mortality
- Every $10\mu\text{g}/\text{m}^3$ increase in NO_x is associated with 2.5% increase in all cause attributable mortality
- Every $10\mu\text{g}/\text{m}^3$ increase in PM_{10} is associated with 6% increase in all cause attributable mortality

Estimated Direct Health Effects of Current Air Pollution in Birmingham

- PM_{2.5}: **520** deaths in 2010
 - 6.4% deaths attributable to this form of anthropogenic air pollution
 - 5,707 years of life lost
- NO₂: **371** deaths in 2011
 - Range of 2.9% to 8.7% deaths attributable to NO₂ alone (independent of effect with PM_{2.5})
- Combined effect **891 deaths per year**, over half that due to tobacco

Potential Benefits of Reducing Air Pollution

Strong evidence for:

- Increased life expectancy
- Reduced health inequalities
- Reduced morbidity for people living with respiratory and cardiovascular conditions

Potential Benefits of Reducing Air Pollution

Evidence for:

- **Increased productivity** (GDP, workforce productivity)
- **Improved school attainment** (through reduced school absence, improved concentration, reduced behavioural disorders)
- **Reduced use of health care** (most research looked at hospital admissions)
- **Reduced obesity and sedentary behaviour; increase in physical activity** (evidence for children living with asthma and evidence regarding obesity in adults)

EFFECTS OF AIR POLLUTION

