Putting health on the map

Sarah Dewar
Sustainability and Partnerships Manager
Merseycare

Paul Nolan
Director
The Mersey Forest
EXECUTIVE SUMMARY
Priority

A city where health is a natural choice

'I go through a couple of times a day and everyone I speak to is positive. Everyone speaks highly of it – it’s a fantastic place. It’s used by walkers, runners, cyclists, dog walkers, shoppers – whereas before it was just a barren place.’

Tony Beyga, local resident and photographer
Natural choices for health

- £300k invested by PCT in green Infrastructure projects – based on the Green Infrastructure Strategy and maps
3274 participants
100 partners
84 events
1159 workshops
867 volunteers
135 employed
“I climbed a tree and swung off the branches, it felt amazing”

“This keeps me fit by shifting and moving things, bending down, picking things up, and using the brush and doing a lot of lifting”

“When I was cutting the trunks out of the soil and the roots it was quite hard and it kind of got my anger out”.

“people regard this as their own ‘gym’, labouring and sweating to their hearts content”

“”Many of the young people felt that as a result of this project they now choose to spend more time outside being active”
"We always just walk past this woodland, now I think me, my dad and the dog will come here again and explore it more"

“Sitting in the august sun watching the workers in the garden making a lovely place even more beautiful”
Wellbeing scores improved by 18%

A greater proportion of participants had a ‘high’ well-being score by the end of the programme, whilst fewer had a ‘low’ well-being score.

(*indicates a significant difference between start and mid point scores (P<0.01), # indicates a significant difference between start and end, and start and mid point scores (P<0.001)).
EXECUTIVE SUMMARY
1. Partnership and Priorities

2. Data Audit and Resource Mapping

3. Functionality Assessment

4. Needs and Opportunities Assessment

5. Intervention Plan

Non-mapped existing info and knowledge
Scale of the challenge in Liverpool

• “Our city faces some of the greatest health challenges in the country. It has some of the highest levels of deprivation and lowest levels of life expectancy. It has a high burden of disease and a relatively low take up of healthy lifestyles.”
• Only 6 national health indicators are better than England Average
• 27 of the 30 wards are in the lowest 5% of life expectancy at birth
• Male in disadvantaged area – 10.9 years shorter life expectancy than most affluent in Liverpool
• Highest level of poor mental health in the NW
• Air Quality Management zone
• Communities vulnerable to heatwave
Where is the Green Infrastructure?
<table>
<thead>
<tr>
<th>TYPE</th>
<th>TOTAL AREA PERCENTAGE</th>
<th>PERCENTAGE OF GREEN SPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not green infrastructure</td>
<td>38.12%</td>
<td>-</td>
</tr>
<tr>
<td>Private domestic garden</td>
<td>16.12%</td>
<td>26.05%</td>
</tr>
<tr>
<td>Coastal habitat</td>
<td>9.68%</td>
<td>15.64%</td>
</tr>
<tr>
<td>Water course</td>
<td>6.65%</td>
<td>10.75%</td>
</tr>
<tr>
<td>General amenity space</td>
<td>4.81%</td>
<td>7.78%</td>
</tr>
<tr>
<td>Grassland, heathland, moorland or scrubland</td>
<td>4.61%</td>
<td>7.45%</td>
</tr>
<tr>
<td>Outdoor sports facility</td>
<td>4.25%</td>
<td>6.87%</td>
</tr>
<tr>
<td>Park or public garden</td>
<td>3.87%</td>
<td>6.25%</td>
</tr>
<tr>
<td>Woodland</td>
<td>3.41%</td>
<td>5.50%</td>
</tr>
<tr>
<td>Institutional grounds</td>
<td>3.08%</td>
<td>4.98%</td>
</tr>
<tr>
<td>Agricultural land</td>
<td>1.23%</td>
<td>1.99%</td>
</tr>
<tr>
<td>Cemetery, churchyard or burial ground</td>
<td>1.15%</td>
<td>1.86%</td>
</tr>
<tr>
<td>Derelict land</td>
<td>0.96%</td>
<td>1.56%</td>
</tr>
<tr>
<td>Street trees</td>
<td>0.83%</td>
<td>1.34%</td>
</tr>
<tr>
<td>Water body</td>
<td>0.79%</td>
<td>1.28%</td>
</tr>
<tr>
<td>Allotment, community garden or urban farm</td>
<td>0.42%</td>
<td>0.69%</td>
</tr>
<tr>
<td>Orchard</td>
<td>0.01%</td>
<td>0.01%</td>
</tr>
</tbody>
</table>
62% of Liverpool
Is green infrastructure

Private domestic gardens
16% of total land area

80% of accessible green infrastructure is in
22% of area

Most affluent areas
18% more green infrastructure

SOME KEY FACTS
WHAT CAN GI DO?

Increase physical activity
Improve air quality
Opportunities for growing food locally
Improve mental health
Social cohesion
Adaptation to climate change
Reduce symptoms ADHD…
• Map each function that relates to health
Health needs mapping

- Proximity of GI to hospitals
- Diabetes
- Obesity
- Coronary heart disease
- Air pollution

- Interested in areas of
  - High needs
  - Low provision
A City Providing Natural Choices for Health
Action 2.2
Mental health

\[ R^2 = 0.2558 \]
Figure 6 Nitrous oxides air pollution and percentage green infrastructure cover

The scatter plot shows a negative correlation between Nitrous oxides concentration (mg/m³) and Percentage green infrastructure cover. The line of best fit indicates a coefficient of determination ($R^2 = 0.2818$), suggesting a moderate relationship between the two variables.
GI and CHD

In the graph, the incidence of coronary heart disease is plotted against the percentage of green infrastructure. The data points are scattered, showing a trend lines with a correlation coefficient of $R^2 = 0.223$. This suggests a moderate negative correlation between the incidence of coronary heart disease and the percentage of green infrastructure.
Green Infrastructure Function

Pinch Point

Asset

Buffer

Low Function/Low Need

High Function/Low Need

Low Function/High Need

High Function/High Need

Health Need
Matching Needs and Investment
Maps lead to opportunities!

- Engaged PCT
- Directed Investment
- Developed relationship
- Identified gaps in knowledge
- Identified the importance of long term engagement/evaluation
- Lots of data from health service - selecting the right data
Funding £300k
£2.14 per participant, per week

- Social cohesion
- Wellbeing
- Legacy
- Mental health
- Physical activity
- Food / obesity
- Passion
What Next?

Public Health Framework

Natural Health Service

[Image of Public Health Outcomes Framework]

[Image of Natural Health Service Consortium Business Plan 2013]

www.2020healthandwellbeing.org.uk
THANK YOU

paulnolan@merseyforest.org.uk