Happy City
Happiness Pulse 2016 Report

HAPPY CITY
POLICY &
MEASUREMENT

Contents

Happy City Pulse 2016 Report
Executive Summary

This executive summary outlines the Happy City Pulse purpose and framework, and the headline findings from the 2016 Bristol Pilot. It aims to show how such data can inform local policy[1] and cities now and in the future.

Why this and why now?

81% of Britons believe that the Government should prioritise creating the greatest happiness, not the greatest wealth.

Increasingly, economists, politicians, academics and environmentalists are recognising that we need to improve what and how we measure and define progress. Wellbeing is emerging as the front-runner as it encompassing elements of so much of our lives – including health, education, economy, environment and justice.

Whilst much work is emerging at an international or national level on this, there is a significant gap when it comes to local scale change, despite the major pressures of urbanisation globally.

Happy City is leading the field in providing innovative yet practical solutions to delivering real wellbeing improvement at a city-scale.

"Happy City would be a great thing for other cities around the world to emulate"
Arianna Huffington, founder of the Huffington Post

Happy City Pulse: A new measure of city wellbeing

Policymakers and citizens in cities around the world are beginning to see the power of measuring wellbeing for public policy. Measures of wellbeing have the potential to act as a common currency between policy silos - improving people's wellbeing leads to long-term improvements in health, productivity, education, and social and environmental behaviours. Wellbeing policy is not at a luxury, it is a necessity.

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[1] We also have a range of case studies available demonstrating the role it can play for organisations

Yet cities do not have a rigorous and accessible means to measure this broad picture of wellbeing. Happy City has developed an innovative solution - the **Happiness Pulse** - designed in collaboration with the New Economics Foundation (NEF) and validated by the University of Bristol. The Happiness Pulse is unique in its ability to measure city wellbeing in a rigorous and informative way, while remaining accessible to businesses and community groups and engaging to individuals.

WHO'S IT FOR?

- **Policy Makers and Leaders** – practical and rigorous tools to guide policy and resources to the things that are proven to improve lives
- **Businesses –** to support wellbeing and resilience in the workforce – leading to lower absenteeism and staff turnover and greater productivity, creativity and team work
- **Communities and Community Groups** – the capacity to map wellbeing needs and strengths and evaluate and demonstrate the impact and social value of their work
- **Individuals** – measure, explore and learn more about routes to lasting wellbeing, strengthening their capacity to build their own resilience

Happy City is a bold, ambitious initiative that represents a truly innovative, approach to creating a city oriented towards the happiness of its residents.
Charles Seaford, World Futures Council

WHY THIS MATTERS

Our tools….
1. **Make the invisible visible:** Our current means of measuring and understanding what makes cities thrive are largely based on very simplistic economic outcomes which miss many vital elements of personal, environmental and social capital. Measures of wellbeing take these seemingly intangible factors into account and provide a much more complete picture of the determinants and drivers of sustainable prosperity.
2. **Provide multiple benefits:** Research shows that improvements in wellbeing support long-term improvements in many policy areas including health, productivity, security, social behaviours and education (the list is growing), demonstrating that wellbeing policy, investment and action are not a luxury, but a necessity.
3. **Create a common currency.** Due to the impact that wellbeing has on so many policy areas, wellbeing data can be used to value the effectiveness of policies and interventions across policy silos.

Happy City Pulse Framework

The Happy City Pulse is an online survey that measures three key areas of personal wellbeing: how people feel (BE), how they act (DO) and how they relate to others (CONNECT), as well as exploring how citizens engage with life in their city.   It is designed to be engaging and informative for individuals whilst giving vital data to business, community and city leaders on how they can better support improvements in wellbeing

Together these elements help paint a detailed picture of how people are feeling and functioning in their lives and communities. This information can then be used to drive better decision making at an individual, community and city scale.

Within each element there are validated indicators to assess the key elements that together make up our overall wellbeing.
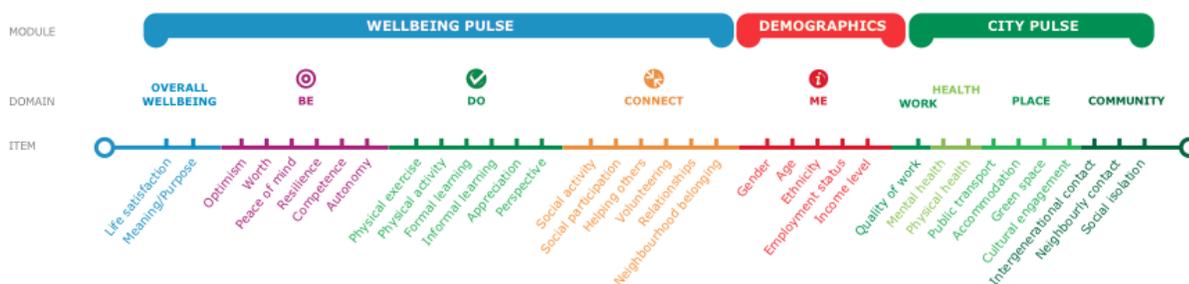
The Happy City Pulse data can inform local policy in different ways including:

1. Highlight the broad determinants of overall wellbeing – helping focus strategies, priorities and resources towards what really matters for people's wellbeing
2. Highlight needs and strengths within different communities
3. Uncover the detail of what works to improve lives in local communities and target resources where it is needed most
4. Demonstrate geographical areas of the city where people's wellbeing is resilient to hard-to-change demographics, such as levels of income, and spread best practice

2016 City Pilot:

The Happiness Pulse tool was piloted across the UK city of Bristol between April and June 2016. A combination of a broad communications campaign to reach the general public and partnerships with city organisations large and small resulted in 7000+ participants taking their Happiness Pulse. Example Case studies of the pulse results at an organisational scale are available on request.

Of the Bristol respondents nearly half were students taking part in the parallel pilot which included a bespoke module, the 'university pulse' in place of the 'life in the city' questions. Future plans included the development of many more such adaptations, where the core wellbeing domains remain constant and comparable across sectors, but organisations and groups can get detailed information about how wellbeing relates to health, environment, older people, youth, housing, work environment etc.

The Results shared here are just the tip of the iceberg in terms of the learning that can be extracted from the data gathered. Both a bigger data set and further academic analysis of the data would reap unprecedented learning for organisations, communities and city leaders.

Pilot Results Part 1 – Overall Picture of Wellbeing

From April to June 2016 Happy City conducted a wide ranging pilot of the Happy City Pulse across the UK city of Bristol. The diagram below summarises the main determinants of overall wellbeing in Bristol from the analysis of the Wellbeing Pulse, demographics and City Pulse data
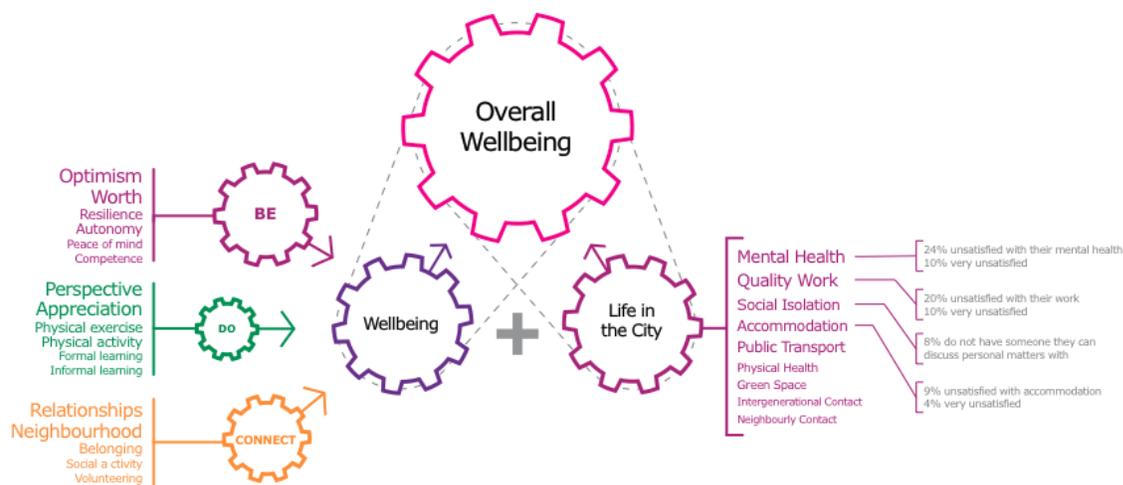
Some Headlines

- Within the Be domain, **Optimism** was the most important determinant, followed by **Feeling useful**.
- Within the Do domain, **Perspective** and **Appreciation** were the most important determinants. **Seeing the funny side of things and noticing beauty is good for you!**
- Within the Connect domain, **relationships** were the most important determinant, followed by **Neighbourhood belonging. Good relationships with those closest to us and feeling part of the community we live in is central to how much we connect with others.**
- **45% of the variation in sense of Worth is explained by City Conditions.**

People's overall wellbeing can be almost equally predicted by their level of Be, Do and Connect and by indicators of Life in the City, such as work, health, place and community. Efforts to improve Bristol's wellbeing need to take both kinds of factors into account.

This shows how important it is to measure both aspects of wellbeing. Typically, wellbeing surveys measure overall wellbeing and a number of circumstances that impact on it, such as employment, physical and mental health, accommodation, and so on. The

Happiness Pulse includes additional measures of emotional wellbeing (Be), behavioural wellbeing (Do) and social wellbeing (Connect).

Life in the City

Of the 'Life in the City' indicators, **mental health** is the most important determinant of overall wellbeing, with **quality work** the second most important determinant. Other important factors include **social isolation, accommodation** and **public transport**. The following figures can be used to benchmark city progress in these policy areas:

- 24% of people are unsatisfied with their mental health, with 10% of those people being very unsatisfied. 63% of people are satisfied with their mental health, with 39% of those being very satisfied.
- 20% of people unsatisfied with their work, with 10% of those people being very unsatisfied. 70% of people are satisfied with their work, with 28% of those being very satisfied.
- 8% of people do not have anyone they can discuss personal matters with.
- 9% of people are unsatisfied with their accommodation, with 4% of those being very unsatisfied.

5 ways to wellbeing

The 5 Ways to Wellbeing have been growing in popularity as a framework for action at a local level. There have been few measurement frameworks that support the evaluation of such interventions. The Happiness Pulse pilot demonstrates that the Five Ways to Wellbeing are all significant predictors of wellbeing.

Within the Do domain were items on three of the Five Ways to Wellbeing, namely **Be Active** (Physical exercise and Physical activity), **Keep Learning** (Formal learning and Informal learning) and **Take Notice** (Perspective and Appreciation). Within the Connect domain were items on the remaining two of the Five Ways to Wellbeing, namely **Connect** (Social activity and Social participation) and **Give** (Volunteering and Helping others).

This increases the evidence-base in favour of using the Five Ways to Wellbeing construct as the basis of an effective wellbeing intervention.

Age

- People's level of **overall wellbeing increased with age,** with those **over 65** with the **highest levels** of wellbeing and those **16-24 with the lowest levels** of wellbeing.
- On average, individuals aged **between 65-74 have higher levels of Be and Connect than individuals aged 16-24**, although 16-24 year olds have significantly higher levels of Do. The fact that Be and Connect are better predictors of overall wellbeing than Do could explain why older individuals have higher levels of overall wellbeing than younger individuals.
- However: **Connect scores for individuals 75+ was at least triple the average for the Pulse sample.** (NB. This is quite unusual and may reflect our sample but nevertheless is an interesting stat!)

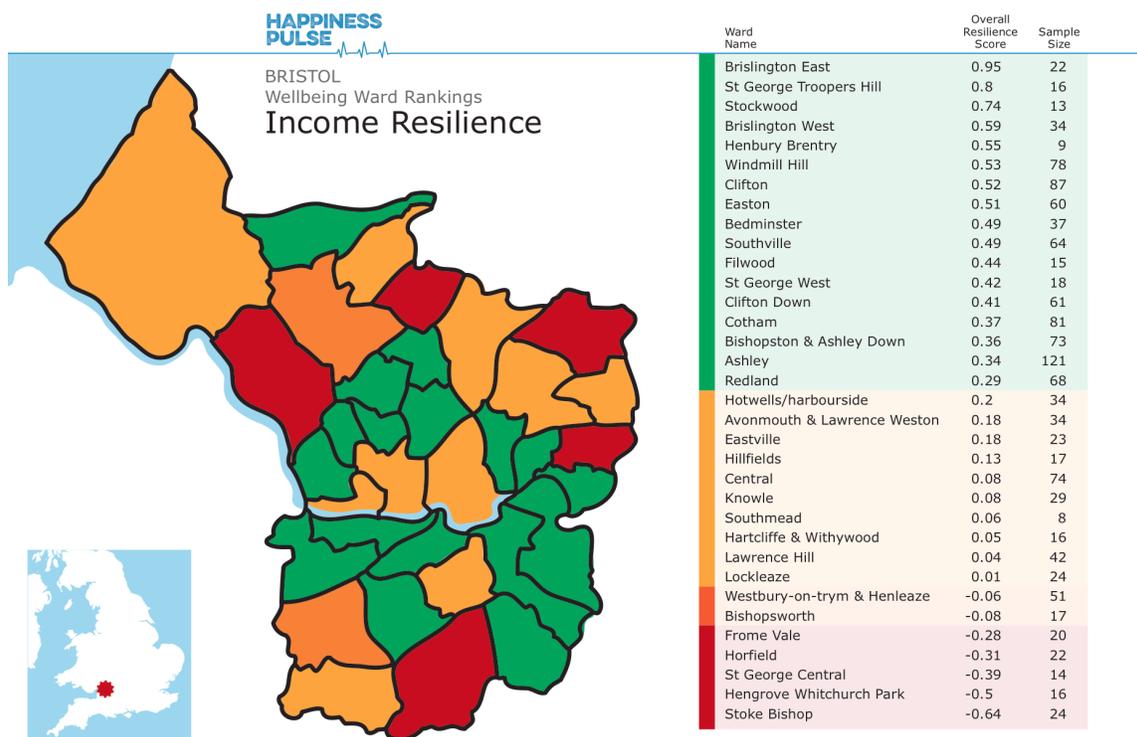**BE, DO and CONNECT**

| | BE | DO | CONNECT |
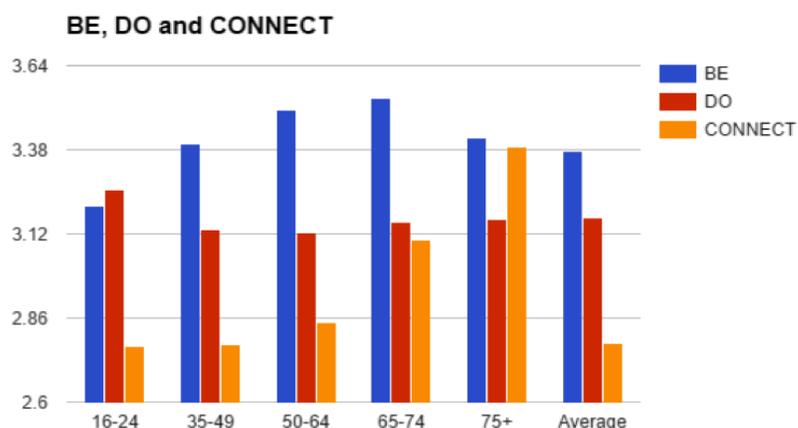
2016 Results: Part 2 - Wellbeing Resilient Wards

The Happiness Pulse results confirm existing research that shows that overall wellbeing ceases to increase with income over an earnings threshold of £25-£36k. Yet beyond this headline, there is much to be learned about what promotes wellbeing that is 'income resilient', which can support better focused action to improving current wellbeing in parallel with plans to tackle poverty and inequality.
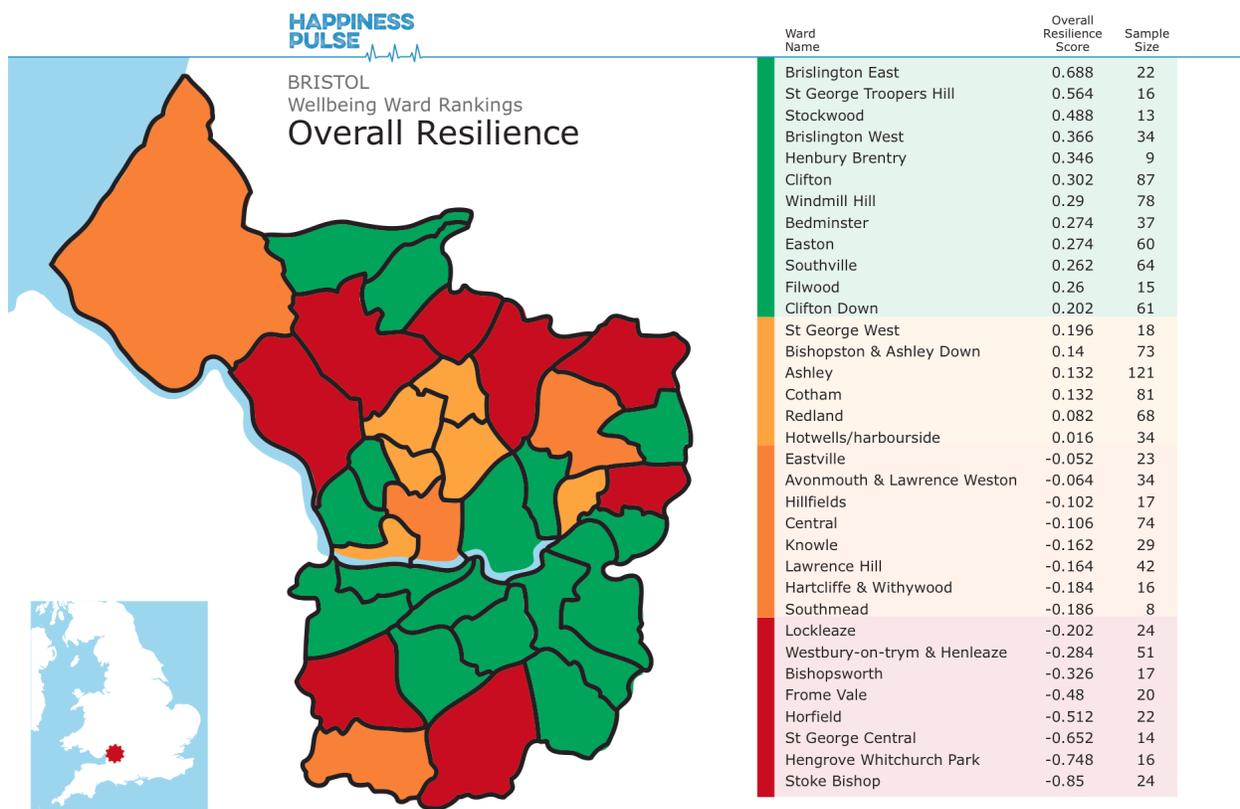
Bristol is made up of 34 wards. There is considerable inequality between these wards, with life expectancy being 8.2 years lower for men and 6.1 years lower for women in the most deprived areas of the city than in the least deprived areas. Not surprisingly, when we look at the average levels of overall wellbeing of each ward, the most affluent wards have the highest average levels of wellbeing and the most deprived wards have the lowest average levels.

However, this finding masks important differences between the 34 wards. In particular, how people's wellbeing is resilient to deprivation and other demographics. The following maps rank Bristol wards by the their **Wellbeing Resilience.**

This first map ranks Bristol wards in terms of how people's wellbeing is resilient to their income level. Each ward's Income Resilience is calculated by the extent to which the ward's average level of wellbeing is better-than-expected from its average level of income.

HAPPINESS PULSE

BRISTOL
Wellbeing Ward Rankings
Income Resilience

Ward Name	Overall Resilience Score	Sample Size
Brislington East	0.95	22
St George Troopers Hill	0.8	16
Stockwood	0.74	13
Brislington West	0.59	34
Henbury Brentry	0.55	9
Windmill Hill	0.53	78
Clifton	0.52	87
Easton	0.51	60
Bedminster	0.49	37
Southville	0.49	64
Filwood	0.44	15
St George West	0.42	18
Clifton Down	0.41	61
Cotham	0.37	81
Bishopston & Ashley Down	0.36	73
Ashley	0.34	121
Redland	0.29	68
Hotwells/harbourside	0.2	34
Avonmouth & Lawrence Weston	0.18	34
Eastville	0.18	23
Hillfields	0.13	17
Central	0.08	74
Knowle	0.08	29
Southmead	0.06	8
Hartcliffe & Withywood	0.05	16
Lawrence Hill	0.04	42
Lockleaze	0.01	24
Westbury-on-trym & Henleaze	-0.06	51
Bishopsworth	-0.08	17
Frome Vale	-0.28	20
Horfield	-0.31	22
St George Central	-0.39	14
Hengrove Whitchurch Park	-0.5	16
Stoke Bishop	-0.64	24

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This second map ranks Bristol wards in terms of how people's wellbeing is resilient to a number of hard-to-change demographics, including income (such as gender, age, ethnicity and employment status). Each ward's Overall Resilience is calculated by the extent to which the ward's average level of wellbeing is better-than-expected from its demographic profile.

HAPPINESS PULSE

BRISTOL
Wellbeing Ward Rankings
Overall Resilience

Ward Name	Overall Resilience Score	Sample Size
Brislington East	0.688	22
St George Troopers Hill	0.564	16
Stockwood	0.488	13
Brislington West	0.366	34
Henbury Brentry	0.346	9
Clifton	0.302	87
Windmill Hill	0.29	78
Bedminster	0.274	37
Easton	0.274	60
Southville	0.262	64
Filwood	0.26	15
Clifton Down	0.202	61
St George West	0.196	18
Bishopston & Ashley Down	0.14	73
Ashley	0.132	121
Cotham	0.132	81
Redland	0.082	68
Hotwells/harbourside	0.016	34
Eastville	-0.052	23
Avonmouth & Lawrence Weston	-0.064	34
Hillfields	-0.102	17
Central	-0.106	74
Knowle	-0.162	29
Lawrence Hill	-0.164	42
Hartcliffe & Withywood	-0.184	16
Southmead	-0.186	8
Lockleaze	-0.202	24
Westbury-on-trym & Henleaze	-0.284	51
Bishopsworth	-0.326	17
Frome Vale	-0.48	20
Horfield	-0.512	22
St George Central	-0.652	14
Hengrove Whitchurch Park	-0.748	16
Stoke Bishop	-0.85	24

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| Ward Number	Ward Name
1	Ashley
2	Avonmouth & Lawrence Weston
3	Bedminster
4	Bishopston & Ashley Down
5	Bishopsworth
6	Brislington East
7	Brislington West
8	Central
9	Clifton
10	Clifton Down
11	Cotham
12	Easton
13	Eastville
14	Filwood
15	Frome Vale
16	Hartcliffe & Withywood
17	Henbury & Brentry
18	Hengrove Whitchurch Park
19	Hillfields
20	Horfield
21	Hotwells/harbourside
22	Knowle
23	Lawrence Hill
24	Lockleaze
25	Redland
26	Southmead
27	Southville
28	St George Central
29	St George Troopers Hill
30	St George West
31	Stockwood
32	Stoke Bishop
33	Westbury-on-trym & Henleaze
34	Windmill Hill

From the above maps, we can see that a large number of Bristol's 34 wards are Wellbeing Reslient[2]. That is, these wards have higher average levels of overall wellbeing than we would have predicted from their demographic profile, such as their average levels of income. With more detailed local wellbeing data we can uncover important ways in which wellbeing can be improved even within geographical areas with major disadvantages.

**What do we know about wellbeing in 'Income resilient' wards**

- We can see that **'Income resilient' wards** (Clifton, Windmill Hill and Easton) **all have higher levels of Be, Do and Connect** than wards with wellbeing equal to or less than we would expect when considering income (Ashley, Central, Westbury-on-Trym and Henleaze).

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[2] (It is worth noting that some of the wards in the above table have relatively low sample sizes. We cannot as readily make conclusions about wards with low numbers of participants as we can about wards with high numbers. For instance, out of the wards with high levels of wellbeing resilience, we can be relatively confident that Windmill Hill, Clifton and Easton are Wellbeing Resilient. However, we cannot be as confident for wards with lower sample sizes, such as St George & Troopers Hill, Stockwood and Henbury & Brentry.)

- We know that **Be is most important for overall wellbeing, followed by Connect** and then Do.
- Within **BE**: **optimism** and **feeling useful** are **especially important** for wellbeing
- Within **DO: perspective** and **appreciation** are **especially important** for wellbeing
- Within **CONNECT: relationships** and **neighbourhood belonging** are **especially important**
- **How are the income resilient wards doing in these areas?**

Income reslience: Optimism and Feeling Useful

Perspective and Appreciation: Income resilience
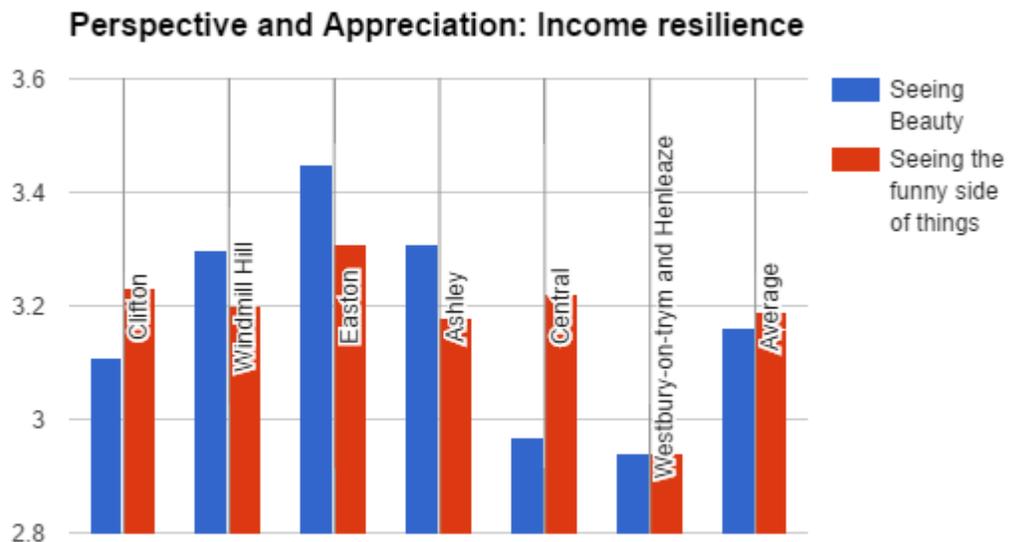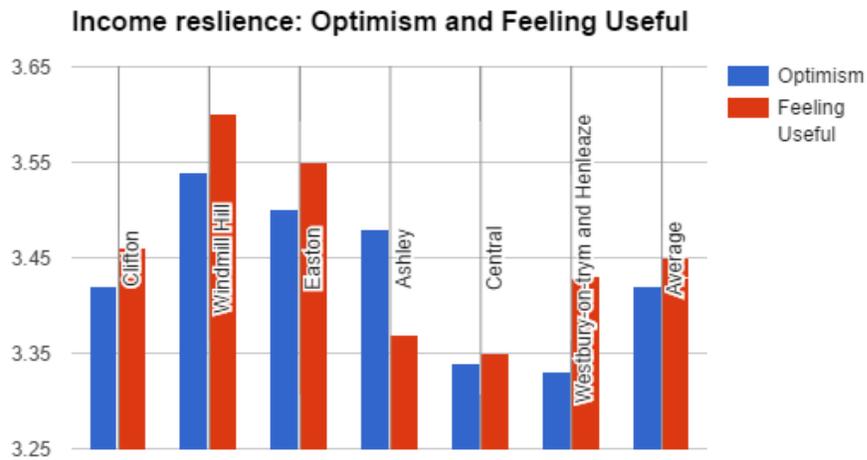
Relationships & Neighbourhood belonging: Income resilience
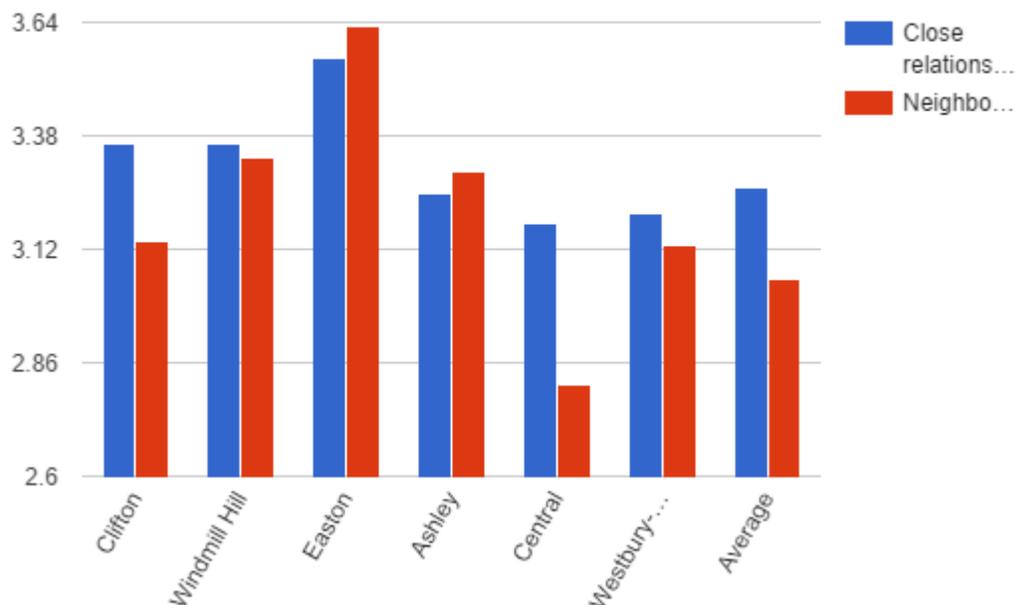
1. **Easton** has incredibly **high levels of neighbourhood belonging and close relationships**, with Clifton, Windmill-Hill and Ashley all above average. These are a key feature of income resilient wards.

2. Those in income resilient wards also have higher than average levels of **Optimism and Feeling useful**, **Seeing Beauty** and **Seeing the Funny side** of things.

3. Less income resilient wards such as Central Westbury on Trym and Henleaze tend to have **low levels of neighbourhood belonging, Optimism and Seeing Beauty**

4. **Easton** and **Windmill Hill** appear to be doing **consistently better** domains of the Happiness Pulse we know to be important for wellbeing. Interestingly, Easton and Ashley are part of the same neighbourhood partnership, along with Lawrence Hill.

5. **Easton** is very rich in community buildings, groups and resources, with its subsequent exceptionally high level of belonging. This investment is paying significant wellbeing dividends and could be replicated elsewhere

The detailed data helps highlight aspects of wellbeing within each neighbourhood where further action and support could provide significant wellbeing dividends.

NEXT STEPS FOR THE HAPPINESS PULSE

The Happiness Pulse is now ready for use in the cities across the UK. Significant learning has emerged from the Bristol Pilot to support the greatest possible uptake by citizens and organisations across a region, which can be shared with groups and leaders in cities elsewhere. Futher develop of the tool and Happy City's other world-leading measurement and policy work is planned for 2017.

Work is also on-going to develop bespoke modules to support greater insight for those interested in particular demographics or initiatives, including housing, environment, culture, youth, older people, business and health.

To find out more about how the Happiness Pulse can help you, your organisation, your community or your city to measure, understand and improve wellbeing, get in touch at:

info@happycity.org.uk
www.happycity.org.uk

Introduction

The benefits of wellbeing policy

Wellbeing has the potential to make a significant difference on both an individual and community scale. It is for this reason that wellbeing has attracted the attention of policymakers, on both a national and international scale, over the past decade. A wellbeing focus is particularly promising for public policy in the following three ways:

1. <u>We are currently missing some things out.</u> Many valuable properties of individuals, communities, cities and nations are not being accounted for by current measures of progress. For example, the social capital that binds communities is not captured by narrow economic measures of income or unemployment. Measures of wellbeing aim to take these seemingly intangible factors into account. Wellbeing measures can be used to understand "what matters" **(ONS 2011)** - a range of external and internal conditions that impact on people's experienced lives.

2. <u>Wellbeing causes beneficial outcomes.</u> We intuitively know that happier individuals and communities tend to fare better than unhappy ones. However, we are only just beginning to understand how important subjective wellbeing is for bringing about many of the outcomes policymakers care about. Wellbeing research shows that improvements in wellbeing tend to cause long-term improvements in a number of policy areas: health, productivity, security, social behaviours and education (the list is growing: see **Exeter 2016**). This shows that wellbeing policy is not a luxury, but a necessity.

3. <u>Wellbeing as a common currency.</u> We also know that certain policies and interventions have far-reaching effects. However, the often siloed nature of specific policy areas makes these effects difficult to account for. Wellbeing has the potential to act as a common currency across policy areas. Due to the impact that wellbeing has on a number of policy areas, we can value the effectiveness of policies and interventions - across policy silos - on the basis of their impacts on people's wellbeing. Policies that effectively improve people's wellbeing are likely to have lasting impacts on health, productivity, security and education. These impacts can be quantified with monetary values. This provides a unified basis from which we can assess the cost-effectiveness of a range of different and far-reaching policies.

The Aims of the Happiness Pulse

The Happiness Pulse is an innovative wellbeing measurement tool, designed in collaboration with the New Economics Foundation (NEF) and validated by the University

of Bristol. What makes it unique is that it aims to measure city wellbeing in a rigorous and informative way, while remaining accessible to organisations and engaging to individuals. This multi-level approach is outlined below:

1: An Informative Measure of Wellbeing

The Happiness Pulse was designed to be made up of internationally recognized wellbeing questions that go well beyond overall wellbeing questions, such as life satisfaction (e.g. "Overall, how satisfied are you with your life nowadays?"). Wellbeing questions focus on the full range of people's feeling and functioning, such as their sense of worth, autonomy, vitality, appreciation, connection, community belonging, and so on.

Collecting a broad range of wellbeing data can help us understand what makes a difference to people's overall wellbeing and why. For example, we may find that people with higher income levels have greater levels of life satisfaction. Data on people's emotional, behavioural and social wellbeing can show us why this is the case – perhaps, for example, people with higher income levels have greater levels of connection, optimism or perspective? Cities currently lack this more detailed picture of people's wellbeing.

2: An Engaging Measure of Wellbeing

The Happiness Pulse is an online digital tool that has been designed to help individuals better understand and improve their wellbeing. In contrast to traditional wellbeing measures, which take the form of long on- or off-line surveys, the aim of the Happiness Pulse was to engage users in the process of measuring their own wellbeing.

Informed by user feedback, we designed the tool to have the following features:
1. Convenient: The online survey only takes five minutes to complete and can be done anywhere online, on a computer, tablet or mobile phone
2. Insightful: Survey items are grouped into three simple wellbeing domains – Be, Do and Connect – enabling users to gain an intuitive understanding of their wellbeing
3. Useful: After completing the survey, users are instantly given their Be, Do and Connect results and provided with a range of online resources to improve their wellbeing in each area

3: An Accessible Measure of Wellbeing

Groups and communities can collect wellbeing data for their organisation by creating a unique Happiness Pulse URL to share with their users. This enables organisations to easily and affordably gain a better understanding of their wellbeing strengths and

weaknesses, while engaging their users in the process. This is particularly useful for organisations that know they have an impact on people's wellbeing, but are unable to demonstrate that impact and rigorously improve on their projects and practices.

In summary, these three features of the Happiness Pulse together create a wellbeing measurement tool and process that can be used at an individual, group and city level. Rather than considering wellbeing measurement as an extractive process – one in which we have to persuade people to answer lengthy wellbeing surveys – we believe it can be an inspiring one. The Happiness Pulse opens up the potential for wellbeing measurement to be done from both the top-down and bottom-up, where a citywide picture of wellbeing is gradually built up via engaged individuals and communities across the city.

The Scope of this Report

This report focuses on findings from the citywide wellbeing dataset collected using the Happiness Pulse between 25th April and 30th June 2016 (N=1759). In reference to the three features of the Happiness Pulse outlined above, this report is concerned with the first aim, namely collecting a broad range of data on people's wellbeing and the city conditions that impact it.

The report does not consist in an evaluation of the second and third features of the happiness Pulse, namely how engaging the tool is for individuals and how accessible it is for communities. For an evaluation of these two features, please see the Happiness Pulse Methodological Report on the Happy City website (www.happycity.org.uk).

Methods

Sample

Between 25th April and 30th June 2016, 1759 people with Bristol postcodes took their Happiness Pulse online at www.happinesspulse.org.

Bristol citizens were contacted via two methods in particular: a) local and social media channels and b) local partner organisations. These two data collection methods were designed to complement each other, with the aim of creating a representative sample of the city population:

1. Local and social media was used to reach a large number of general members of the public across the city.
2. Local partner organisations were used to reach groups and geographical areas that typically have lower response rates to public surveys. Local organisations already working with these groups, such as local community centres, were contacted to share the Happiness Pulse with their staff, volunteers, members or project participants.

In general, Happiness Pulse users had lower wellbeing scores on average than Bristol citizens in wellbeing surveys with comparable measures of overall wellbeing. For instance, Bristol's average life satisfaction score in the Annual Population Survey is 7.34, whereas Bristol's average life satisfaction score in the Happiness Pulse is 6.55. This suggests either that populations with higher average levels wellbeing were not reached by the above two data collection methods or that populations with lower levels of wellbeing were more likely to take their Happiness Pulse.

Almost a third of participants making up the total sample were from local partner organisations (458 participants from 12 local organisations, out of the total 1759 participants; see Appendix A for a list of these organisations and number of participants). The majority of organisations shared the Happiness Pulse with their staff and volunteers rather than their members and project participants. On average, participants from these organisations had neither significantly higher nor lower wellbeing scores than members of the general public who took their Happiness Pulse.

To verify the representativenes of the total sample, we compared data collected by the Happiness Pulse with population data held by Bristol City Council. In general, the citizens who took their Happiness Pulse were more likely to be female, between 25-64 and White British. For more information of the demographic make up of the sample, see Appendix B.

There was a higher proportion of individuals reporting to be female, 25-64, White British and either retired or in education. There was a lower proportion of individuals reporting to be male, 16-24 or over 65, Black/Black British or Asian/Asian British, unemployed, long-term sick/disabled or looking after family/home.

In addition, respondents were not evenly spread across the 34 city wards and 14 city neighbourhoods. This means that the results may be more meaningful for wards and neighbourhoods with a greater number of respondents.

All the results below take these sample sizes and confidence intervals into account, but the over- and under-representation of particular demographic groups and areas means that care should be taken when making inferences about the whole city population based on these data.

Data collection

The Happiness Pulse survey tool was accessed online by citizens at www.happinesspulse.org. As mentioned above, citizens were contracted via two methods in particular: a) local and social media channels and b) local partner organisations. In both cases, citizens were encouraged to take their Happiness Pulse on the basis that they would gain a better understanding of their wellbeing and how to improve it. In addition, local partner organisations were encouraged to share the Happiness Pulse on the basis that they would easily and affordably gain a better understanding of their wellbeing strengths and weaknesses, while engaging their members in the process.

Local and social media channels included a handful of local TV, radio and newspaper articles at the beginning of the data collection period (25th April 2016) and regular emails, blogs and Tweets to Happy City mailing lists till the end of the data collection period (30th June 2016).

In addition, Happy City paid for 6 Facebook ads, targeted to different demographic groups. It also produced Happiness Pulse postcards (between 2000-3000) that were dropped in public spaces (e.g. cafes, community centres, libraries, etc.) across the city.

Local partner organisations shared the Happiness Pulse with their staff, volunteers, members and project participants typically via email, though some promoted it on their website and used posters provided by Happy City. Participant response rates varied largely in relation to the size of the organisation. For instance, the largest local partner organisation – University Hospitals – shared the Happiness Pulse with 4000+ individuals

and received 200+ respondents – a response rate of 5%. In contrast, one of the smallest local partner organisations – What's Right – shared the Happiness Pulse with 25 individuals and received 17 respondents – a response rate of 68%.

Measures

The online survey included measures of wellbeing, demographics and city conditions that have an on impact citizens' wellbeing (labelled the "City Pulse"). Wellbeing items were divided up into a section on overall wellbeing and three intuitive wellbeing domains: Be, Do and Connect.

Two items were included in the overall wellbeing section, both with a 0-10 response scale. These items were taken from the UK's Office of National Statistics (ONS) National Wellbeing measure.

Six items were included in each of the Be, Do and Connect domains, mostly with a 1-5 response scale. These items were taken either from recognised wellbeing scales, such as SWEMWBS, or behavioural wellbeing constructs, such as the Five Ways to Wellbeing.

10 items were included in the City Pulse section. Again, these items were taken from recognised scales, such as the Understanding Society Survey and Oxwell survey.

The diagram below illustrates the survey framework:
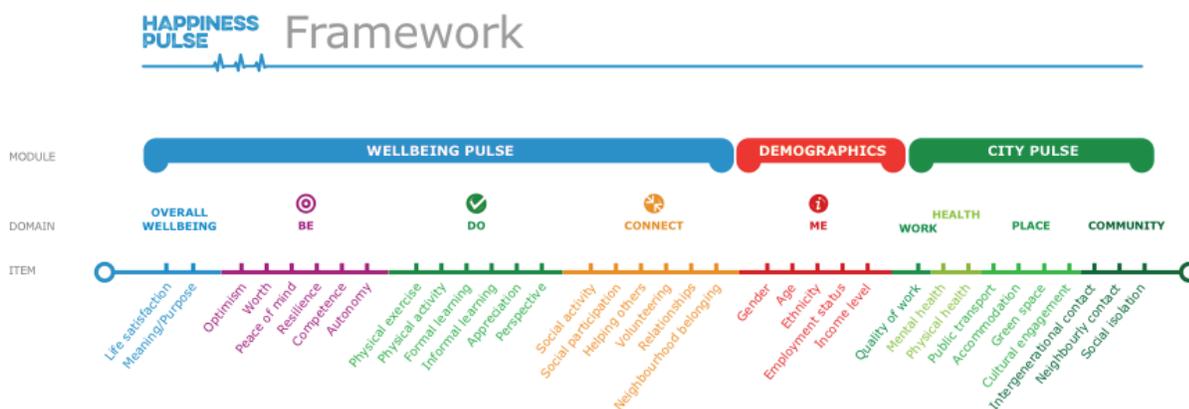
Analyses

Dr. Jaynie Rance and Professor Ceri Philips of Swansea University conducted the analysis of the Happiness Pulse city data. The full analysis is currently being written up into a published paper, due for circulation by December 2016.

A large part of the analysis is about the determinant of people's wellbeing, calculated by linear regression models. Linear regressions show how well one variable predicts another and is one way to understand the relationship between a single variable (wellbeing) and other variables (e.g. age, income, optimism, work satisfaction, etc). By looking at how much different variables explain the variance of wellbeing, we can identify the determinants of wellbeing based on the extent to which they fit into a 'wellbeing prediction model'.

The relationships between wellbeing and other variables are complex and not always linear e.g. if income is a significant determinant of wellbeing, it does not necessarily mean that as income increases so does wellbeing (research tells us the story isn't that straightforward). And although only statistically significant findings are presented, some critical distance is required when 'making sense' of the data.

Results

Part 1: City Picture of Wellbeing

The diagram below summarises the main determinants of overall wellbeing from the analysis of the Wellbeing Pulse, demographics and City Pulse data.

The relative size of the "Wellbeing" and "Life in the City" boxes, and the "Be", "Do" and "Connect" boxes, represent the extent to which these things determine overall wellbeing. Similarly, the relative size of the words below the "Life in the City" box, represent the importance of these things on overall wellbeing. The relative size of the words below the "Be", "Do" and "Connect" boxes represent the important of these things on Be, Do and Connect respectively.
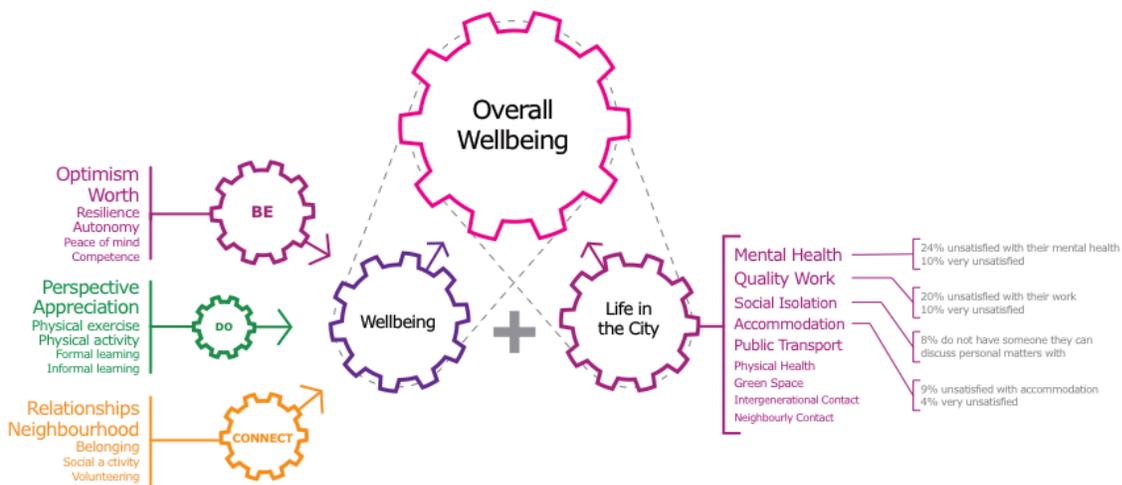
How is Bristol doing in comparison to other UK cities?

Data from the ONS National Wellbeing Programme shows that Bristol does not have a very high average level of overall wellbeing in comparison to other major UK cities.

2016 ONS Cities	Average life satisfaction
Edinburgh	7.58
Cardiff	7.5

|	
Sheffield	7.43
Belfast	7.4
London	7.39
Nottingham	7.39
Glasgow	7.38
Newcastle	7.36
Bristol	7.34
Sheffield	7.43
Birmingham	7.28
Liverpool	7.25
Manchester	7.23

Why is Bristol's average level of overall wellbeing so low? Unfortunately, we do not have sufficient data across the UK's major cities to definitively answer this question, but can offer a few tentative suggestions based on wellbeing research and datasets produced by Happy City.

Firstly, Bristol may have low average levels of key determinants of wellbeing. In a separate Happy City publication – the Happy City Index – which presents city-level data on the conditions that create wellbeing, we found that Bristol was one of the lowest ranking England Core Cities for mental health satisfaction and job satisfaction. Wellbeing research (including findings from this Happiness Pulse city pilot) shows that these conditions are key determinants of wellbeing (Fleche and Layard 2015). Cities with higher average levels of these two determinants tend to have higher average levels of overall wellbeing.

Secondly, Bristol is a relatively unequal city in comparison to other major UK cities. For instance, the range of life expectancy within Bristol from the most to least deprived small areas ("Slope Index of Inequality"; 2010-12; released Public Health England 2014) indicates average life expectancy is 8.2 years lower for men and 6.1 years lower for women in the most deprived areas of Bristol than in the least deprived areas. Wellbeing research shows that inequality (including inequality in wellbeing) has a big influence on people's average levels of overall wellbeing (World Happiness Report 2015).

Lastly, we can gain further insight into Bristol's average level of overall wellbeing by breaking wellbeing down into a broad range of people's feelings and functioning, beyond their overall life satisfaction. The Happiness Pulse collects data both on people's Life in the City (such as their mental health satisfaction and job satisfaction) and a broad range of aspects of wellbeing, grouped into three domains: Be, Do and Connect. The analysis below shows how important each of these aspects of people's wellbeing are at determining their overall level of wellbeing.

<u>What are the main determinants of Bristol's overall wellbeing?</u>
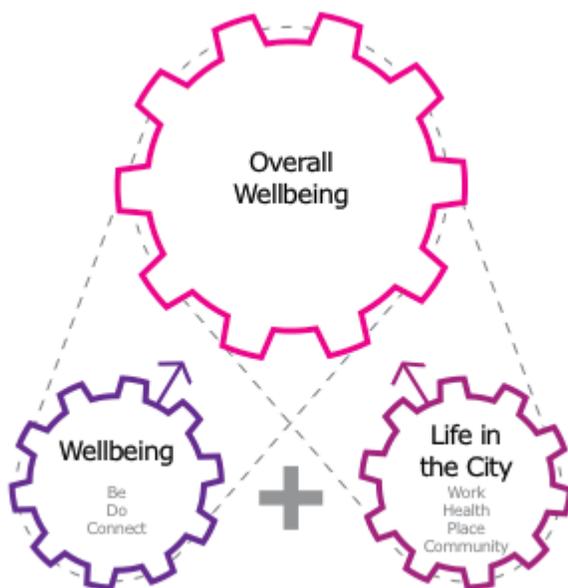
Results from the Happiness Pulse city pilot revealed differences in people's overall wellbeing can be almost equally predicted by people's level of Be, Do and Connect and by indicators of Life in the City, such as work, health, place and community.

This shows how important it is to measure both aspects of wellbeing. Typically, wellbeing surveys measure overall wellbeing and a number of circumstances that impact on it, such as employment, physical and mental health, accommodation, and so on. In addition, the Happiness Pulse includes measures of emotional wellbeing (Be), behavioural wellbeing (Do) and social wellbeing (Connect). This can help us gain further insights into the determinants of wellbeing across the city.

<u>Key wellbeing determinants: Be, Do and Connect</u>
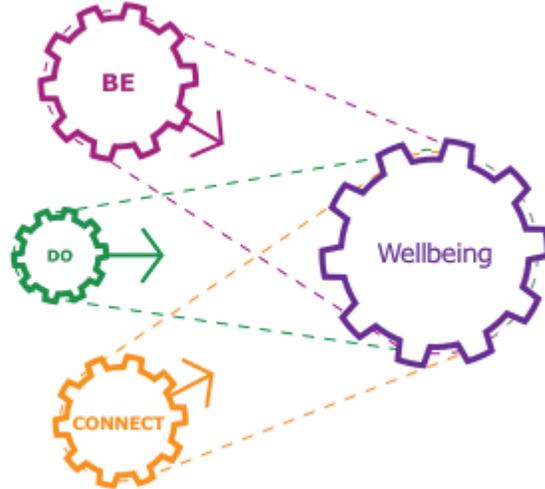
Nearly 50% of the variability in people's overall level of wellbeing can be predicted by people's levels of Be, Do and Connect. Of the three wellbeing domains:

- **Be** is the most important determinant, accounting around **50%** of the variance
- **Connect** is also very important, accounting for around **30%**
- **Do** is the least important, though still accounting for around **20%**

We can look further into the specific items within each of the domains that are most important in terms of explaining the variance in overall wellbeing.
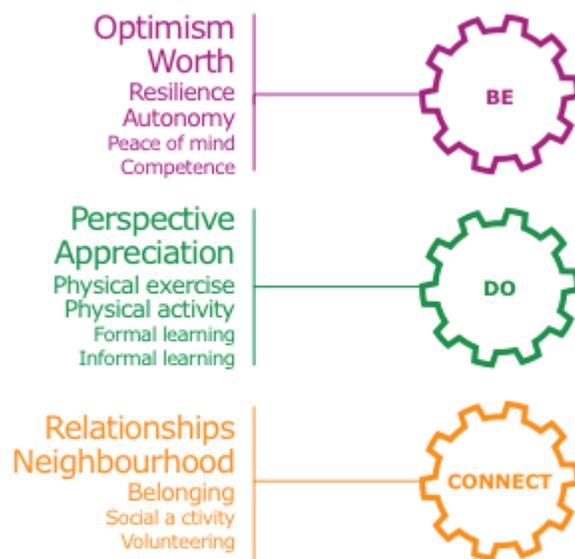
- Within the Be domain, **Optimism** was the most important determinant, followed by **Worth**. Resilience and Autonomy were also important.
- Within the Do domain, **Perspective** and **Appreciation** were the most important determinants. Physical exercise, Physical activity, Formal learning and Informal learning were also important.
- Within the Connect domain, **Relationships** were the most important determinant, followed by **Neighbourhood belonging.** Social activity, Social participation and Volunteering were also important.

We can directly improve people's levels of Be, Do and Connect via proven wellbeing interventions – community projects and individual behavioural change programmes that foster a greater sense of emotional, behavioural and social wellbeing. Findings from the Happiness Pulse city pilot suggest that these kinds of local policies are as important as those that promote key city conditions, such as work, health, place and community.

However, there are still some important demographic influences on people's level of Be, Do and Connect. The diagram below shows the impact of people's age, employment status, income level and gender on Be, Do and Connect scores:

- Income and Employment status were important determinants of all Be, Do and Connect
- Age was an important determinant of Be and Do
- Gender was an important determinant of Do and Connect

This can help explain some of the inequalities in people's levels of emotional, behavioural and social wellbeing. This has direct implications for the targeting of wellbeing interventions aiming to increase different aspects of people's wellbeing.

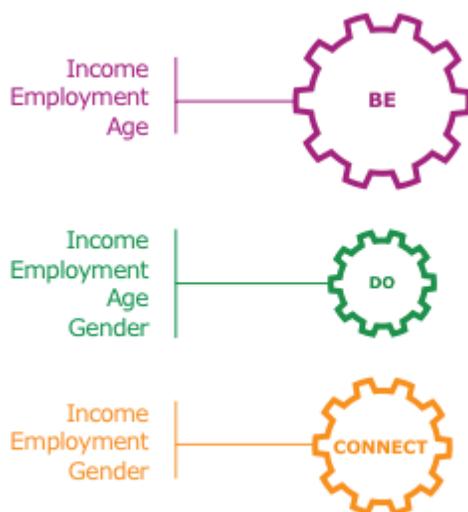Key wellbeing determinants: Life in the City

54% of the variability in people's overall level of wellbeing can be predicted by key 'Life in the City' indicators, such as work, health, place and community. Of these indicators:

- **Mental health** is the most important determinant of overall wellbeing
- **Quality work** is the second most important determinant of overall wellbeing
- Other important factors included: **Social isolation, Accommodation** and **Public transport**.
- Physical health and Green space were significant determinants of one of our two measures of overall wellbeing (life satisfaction), whereas Intergenerational contact and Neighbourly contact were significant determinants of the other measure (feeling life is worthwhile)

We can look further into people's responses to these key items in order to get some benchmark figures from which the city can aim to improve people's quality of life. For instance:

- 24% of people are unsatisfied with their mental health, with 10% of those people being very unsatisfied. 63% of people are satisfied with their mental health, with 39% of those being very satisfied.
- 20% of people unsatisfied with their work, with 10% of those people being very unsatisfied. 70% of people are satisfied with their work, with 28% of those being very satisfied.
- 8% of people do not have anyone they can discuss personal matters with.
- 9% of people are unsatisfied with their accommodation, with 4% of those being very unsatisfied.

Interestingly, we found that one of the items in our City Pulse module was not a significant determinant of overall wellbeing, namely people's level of cultural engagement. In future iterations of the Happiness Pulse, we will investigate whether alternative questions about people's level of cultural engagement are significant or not.

Other wellbeing determinants: Demographics

The previous two sections have outlined the two mains kinds of determinants of people's overall wellbeing in the Happiness Pulse sample. These are (a) people's levels of Be, Do and Connect and (b) key city conditions, such as work, health, place and community. The next two sections outline two other significant, albeit less important, determinants of wellbeing in the Happiness Pulse sample, namely (a) demographics and (b) the Five Ways to Wellbeing.

Demographic factors – such as age, gender, employment status, ethnicity and income level – explain very little of the variance in overall wellbeing – less than 3%. Of these factors, income level is the only significant determinant of life satisfaction. Age, gender and employment status impact life satisfaction indirectly, via their influences of Be, Do and Connect outlined above.

We found that ethnicity was not a significant determinant of wellbeing. However, the Happiness Pulse sample had a higher proportion of individuals reporting White British and a lower proportion of individuals reporting to be Black/Black British or Asian/Asian British. With a more representative sample, we may find ethnicity to be a significant factor.

Other wellbeing determinants: Five Ways to Wellbeing

The Be, Do and Connect domains contained items on the Five Ways to Wellbeing – a behavioural wellbeing construct developed by the New Economics Foundation (NEF) to show how people can act on a day-to-day basis to promote their wellbeing (their "5-a-day" for wellbeing). This construct has been influential within public health and community projects aiming to improve people's health and wellbeing.

We found that each of the Five Ways to Wellbeing were significant predictors of wellbeing. Within the Do domain were items on three of the Five Ways to Wellbeing, namely **Be Active** (Physical exercise and Physical activity), **Keep Learning** (Formal learning and Informal learning) and **Take Notice** (Perspective and Appreciation). Within the Connect domain were items on the remaining two of the Five Ways to Wellbeing, namely **Connect** (Social activity and Social participation) and **Give** (Volunteering and

Helping others). This increases the evidence-base in favour of using the Five Ways to Wellbeing construct as the basis of an effective wellbeing intervention.

How does wellbeing vary across Bristol?

The previous four sections have looked at the significant determinants of people's wellbeing in Bristol. We can improve citizen's levels of wellbeing by promoting these determinants. This section looks at how wellbeing varies across Bristol and therefore which groups are in most need of policies and interventions that aim to improve people's wellbeing.

Gender: We found that women have significantly higher levels of overall wellbeing than men – a finding that is consistent with national wellbeing data. This finding could be explained by differences in men and women's levels of Be, Do and Connect. The chart below shows how people's levels of Be, Do and Connect in the Happiness Pulse sample vary by gender:
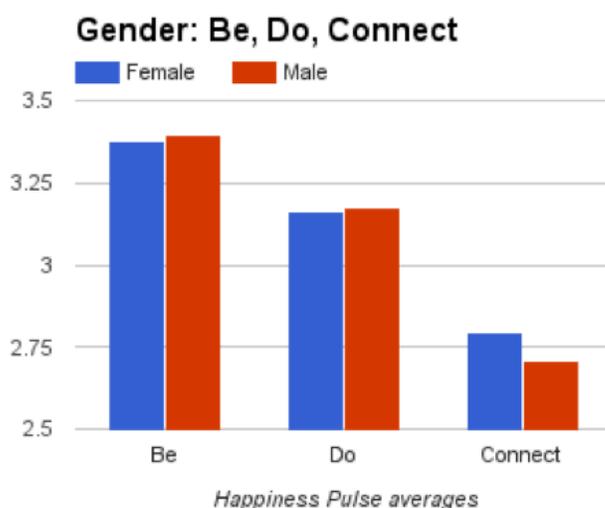
On average, women have significantly higher levels of Connect; men have moderately higher levels of Do. As outlined above, people's level of Connect is a greater determinant of their overall wellbeing than their level of Do. This suggests that the difference in overall wellbeing between men and women could be explained by the fact that women have significantly higher levels of Connect.

Age: We found that people's level of overall wellbeing increased with age, with those over 65 with the highest levels of wellbeing and those 16-24 with the lowest levels of wellbeing. Again, this finding could be explained by differences in Be, Do and Connect

between people of different ages. The chart below shows how people's levels of Be, Do and Connect in the Happiness Pulse sample vary by age:
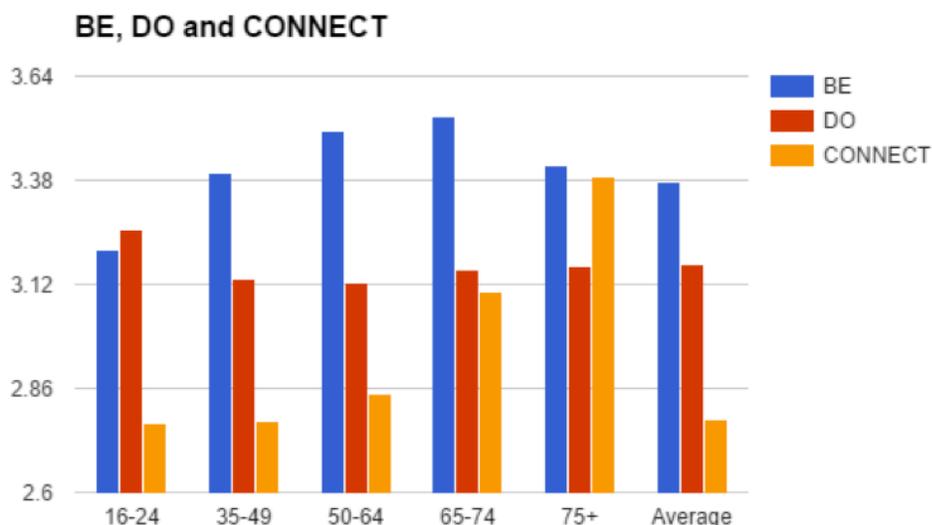
On average, individuals aged over 65 have higher levels of Be and Connect than individuals aged 16-24. In contrast, 16-24 year olds have significantly higher levels of Do. The fact that people's level of Be and Connect are greater determinants of overall wellbeing than their level of Do could explain why older individuals (with greater levels of Be and Connect) have higher levels of overall wellbeing than younger individuals (with greater levels of Do).

Income: We found that people's level of overall wellbeing varied significantly with income. However, it is not simply the case that higher levels of income determine higher levels of wellbeing. Although overall wellbeing was highest for those on higher incomes (with those earning under £21k having below average wellbeing) wellbeing ceases to increase beyond earning £25-36k. The chart below helps to see whether this can be explained by differences in Be, Do and Connect between people of different income levels:
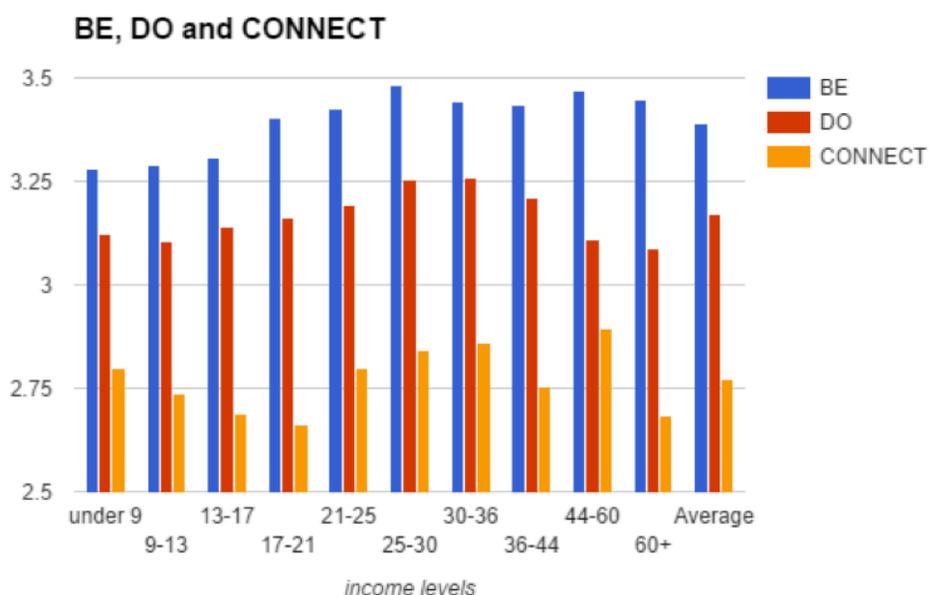
BE, DO and CONNECT

Over average, people earning £25k and above have higher levels of Be. People's levels of Do and Connect vary less according to income, though those earning over £44k have lower levels of Do than average and those earning under £9k have higher levels of Connect than average. This suggests the impact of income levels on people's overall wellbeing is largely caused by the impact income has on people's level of Be.

In summary, wellbeing varies significantly across different groups in Bristol. Women tend to have higher levels of overall wellbeing than men (potentially due to higher levels of Connect). Older individuals tend to have higher levels of wellbeing than younger individuals (potentially due to higher levels of Be and Connect). Individual with middle and high levels of income tend to have higher levels of wellbeing than individuals with low levels of income (potentially due to higher levels of Be). These findings help target those most in need of policies and interventions designed to help people improve their wellbeing. They also suggest the broad areas of wellbeing (Be, Do, Connect) in which these efforts would be most effective.

Part 2: Wellbeing Resilient Wards

How are people doing across Bristol wards and neighbourhoods?

In the previous section, we received how wellbeing varies across different groups in Bristol (by gender, age and income level). In this section, we will look at how people's overall wellbeing in Bristol varies by geography, at a ward level. In particular, we will

look at the city wards that are doing better than we might have expected from simply looking at their relative average levels of deprivation and affluence. This gives us an idea of how 'Wellbeing Resilient' a ward is - that is, how much the average level of overall wellbeing in a ward is not dependent on key demographics, such as income levels.

Ward Number	Ward Name
1	Ashley
2	Avonmouth & Lawrence Weston
3	Bedminster
4	Bishopston & Ashley Down
5	Bishopsworth
6	Brislington East
7	Brislington West
8	Central
9	Clifton
10	Clifton Down
11	Cotham
12	Easton
13	Eastville
14	Filwood
15	Frome Vale
16	Hartcliffe & Withywood
17	Henbury & Brentry
18	Hengrove Whitchurch Park
19	Hillfields
20	Horfield
21	Hotwells/harbourside
22	Knowle
23	Lawrence Hill
24	Lockleaze
25	Redland
26	Southmead
27	Southville
28	St George Central
29	St George Troopers Hill
30	St George West
31	Stockwood
32	Stoke Bishop
33	Westbury-on-trym & Henleaze
34	Windmill Hill

Bristol is made up of 34 wards. As mentioned above, there is considerable inequality between different geographical areas within Bristol. For instance, life expectancy is 8.2 years lower for men and 6.1 years lower for women in the most deprived areas of the city than in the least deprived areas. We have already seen that people with lower income levels have significantly lower levels of overall wellbeing. We should expect, then, that wards with lower average levels of income also have lower average levels of wellbeing.

This expectation is confirmed by Bristol City Council Quality of Life data on people's wellbeing, using the Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS). The lowest ranking ward in Bristol for wellbeing is Filwood, which is also one of the most deprived wards in the city. Conversely, the highest ranking ward in Bristol for wellbeing is Stoke Bishop, which is one of the most affluent city wards.

These rankings are important for making sure policymakers target the areas across the city most in need of policies and interventions designed to help people improve their wellbeing. However, an exclusive focus on these ranking can cloud the fact that there is more to wellbeing than income and material conditions. We have already seen that people's level of Be, Do and Connect, and key city conditions, such as mental health and job satisfaction, matter more for wellbeing than income levels. Some geographical areas may have high levels of these things without necessarily having high levels of income. Thus, some wards may have higher levels of wellbeing than we might expect from looking at their average income levels alone.

The city map below shows how well each of the 34 Bristol wards is doing once we take the effect of income on wellbeing into account. For each ward, we calculated their *expected* average level of overall wellbeing from their average level of income. We then compared this with their *actual* average level of overall wellbeing. Wards with high-than-expected levels of wellbeing have a positive Wellbeing Resilience score; wards with lower-than-expected levels of wellbeing have a negative Wellbeing Resilience score.
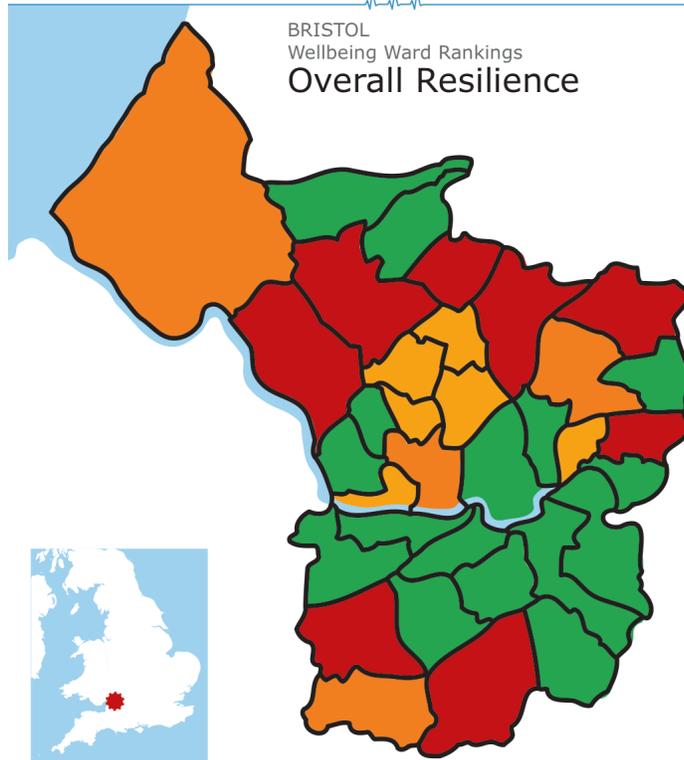

HAPPINESS PULSE

BRISTOL
Wellbeing Ward Rankings
Income Resilience

Ward Name	Overall Resilience Score	Sample Size
Brislington East	0.95	22
St George Troopers Hill	0.8	16
Stockwood	0.74	13
Brislington West	0.59	34
Henbury Brentry	0.55	9
Windmill Hill	0.53	78
Clifton	0.52	87
Easton	0.51	60
Bedminster	0.49	37
Southville	0.49	64
Filwood	0.44	15
St George West	0.42	18
Clifton Down	0.41	61
Cotham	0.37	81
Bishopston & Ashley Down	0.36	73
Ashley	0.34	121
Redland	0.29	68
Hotwells/harbourside	0.2	34
Avonmouth & Lawrence Weston	0.18	34
Eastville	0.18	23
Hillfields	0.13	17
Central	0.08	74
Knowle	0.08	29
Southmead	0.06	8
Hartcliffe & Withywood	0.05	16
Lawrence Hill	0.04	42
Lockleaze	0.01	24
Westbury-on-trym & Henleaze	-0.06	51
Bishopsworth	-0.08	17
Frome Vale	-0.28	20
Horfield	-0.31	22
St George Central	-0.39	14
Hengrove Whitchurch Park	-0.5	16
Stoke Bishop	-0.64	24

From the above map, we can see that the average level of overall wellbeing in 8 of Bristol's 34 wards are 'Income Resilient'. That is, these wards have higher average levels of overall wellbeing than we would have predicted from their average levels of

income. Unfortunately, we do not have sufficient wellbeing data to dig down and see what these Income Resilient wards are doing right. These results, however, suggest that further attempts to collect local wellbeing data can uncover important ways in which wellbeing can be improved within a geographical area without having the significantly increase people's level of income.

It is worth noting that some of the wards in the above table have relatively low sample sizes. We cannot as readily make conclusions about wards with low numbers of participants as we can about wards with high numbers. Thus, for instance, out of the wards that have higher-than-expected levels of wellbeing (from looking at income alone) we can be relatively confident that Windmill Hill, Clifton and Easton are Income Resilient. We cannot be as confident for wards with lower sample sizes, however, such as St George & Troopers Hill, Stockwood and Henbury & Brentry.

The city map below goes a step further. It shows how well each of the 34 Bristol wards is doing once we take the effect on wellbeing of a number of demographics (including income levels) into account. For each ward, we calculated their *expected* average level of overall wellbeing from their average level of income, gender, age, ethnicity and employment status. We then compared this with their *actual* average level of overall wellbeing. Wards with high-than-expected levels of wellbeing have a positive Wellbeing Resilience score; wards with lower-than-expected levels of wellbeing have a negative Wellbeing Resilience score.

BRISTOL
Wellbeing Ward Rankings
Overall Resilience

Ward Name	Overall Resilience Score	Sample Size
Brislington East	0.688	22
St George Troopers Hill	0.564	16
Stockwood	0.488	13
Brislington West	0.366	34
Henbury Brentry	0.346	9
Clifton	0.302	87
Windmill Hill	0.29	78
Bedminster	0.274	37
Easton	0.274	60
Southville	0.262	64
Filwood	0.26	15
Clifton Down	0.202	61
St George West	0.196	18
Bishopston & Ashley Down	0.14	73
Ashley	0.132	121
Cotham	0.132	81
Redland	0.082	68
Hotwells/harbourside	0.016	34
Eastville	-0.052	23
Avonmouth & Lawrence Weston	-0.064	34
Hillfields	-0.102	17
Central	-0.106	74
Knowle	-0.162	29
Lawrence Hill	-0.164	42
Hartcliffe & Withywood	-0.184	16
Southmead	-0.186	8
Lockleaze	-0.202	24
Westbury-on-trym & Henleaze	-0.284	51
Bishopsworth	-0.326	17
Frome Vale	-0.48	20
Horfield	-0.512	22
St George Central	-0.652	14
Hengrove Whitchurch Park	-0.748	16
Stoke Bishop	-0.85	24

From the above map, we can see that 8 of Bristol's 34 wards are 'Wellbeing Resilient'. That is, these wards have higher average levels of overall wellbeing than we would have predicted from their average levels of income. Again, we do not have sufficient wellbeing data to dig down and see what these Wellbeing Resilient wards are doing right. These results, however, suggest that further attempts to collect local wellbeing data can uncover important ways in which wellbeing can be improved even within a geographical area with major disadvantages.

Discussion

Policy implications

The results of the Happiness Pulse city pilot have the following policy implications:

1. Need to improve Bristol's wellbeing

Bristol has significantly lower average levels of wellbeing than other major UK cities. This may be due to relatively low levels of key determinants of wellbeing (such as mental health and quality of work), a lack of equality across the city or other key wellbeing determinants, such as people's emotional, behavioural and social wellbeing (Be, Do and Connect).

2. Need to improve two kinds of important wellbeing determinants

Citizens' average level of overall wellbeing is largely determined by two kinds of factors: a) their level of Be, Do and Connect and b) key city conditions, such as work, health, place and community. Regarding b) mental health and quality of work are particularly important determinants. Efforts to improve Bristol's wellbeing need to take both kinds of factors into account.

3. Need to target specific groups within Bristol

Wellbeing varies significantly across gender, age and income. Wellbeing policies and interventions can most effectively impact groups with lower average levels of wellbeing by targeting the areas of emotional, behavioural and social wellbeing (Be, Do, Connect) they are weakest in.

4. Need to learn from wellbeing resilient areas of the city

Although income significantly determines people's average level of wellbeing, it is not destiny. Some Bristol wards and neighbourhoods have better-than-expected levels of wellbeing if we were to simply look at the average level of income within those wards and neighbourhoods. Further research is needed to determine what these areas of the city are doing right in terms of providing the conditions for people to achieve relatively high levels of wellbeing without correspondingly high levels of income.

Limitations

The main limitation of the Happiness Pulse city pilot was the sample size (N=1759). There was a higher proportion of individuals reporting to be female, 25-64, White British and either retired or in education. There was a lower proportion of individuals reporting to be male, 16-24 or over 65, Black/Black British or Asian/Asian British, unemployed, long-term sick/disabled or looking after family/home. In addition, respondents were not evenly spread across the 34 city wards and 14 city neighbourhoods.

This means that results are not necessarily representative of the whole Bristol population. Findings are more likely to represent White British women, between 25-64, living in the central areas of Bristol, rather than elderly or young adults from minority ethnic groups living in the surrounding areas of the city.

Future iterations of the Happiness Pulse will consider more effective ways to reach people via its two main data collection methods, namely a) local and social media channels and b) local partner organisations. We aim to increase the effectiveness of the former method by further developing the Happiness Pulse online tool. As mentioned above, what makes the Happiness Pulse tool unique is that it aims to measure city wellbeing in a rigorous and informative way, while remaining accessible to communities and engaging to individuals. From the city pilot, we received a large amount of useful feedback from Happiness Pulse users on the online tool. We aim to develop to the tool on the basis of this feedback.

We also aim to improve the second data collection method involving local partner organisations. In particular, we aim to embed the Happiness Pulse within the city council and its affiliated local organisations. Further information on these plans is provided in the following section.

Future applications

In 2017, we plan to pilot the Happiness Pulse, alongside Happy City's other two Wellbeing Measurement and Policy tools (the Happy City Index and WellWorth Policy Toolkit), with Bristol City Council (BCC). The following diagram shows how these tools fit together:
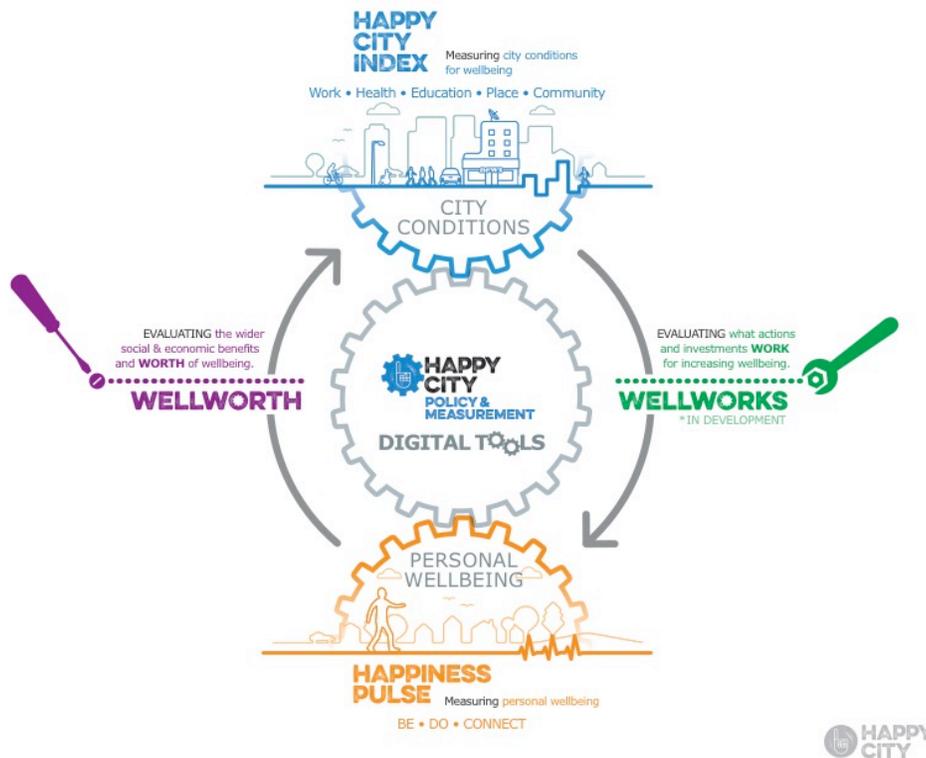
We plan to pilot these tools within Bristol in the following five ways:

1. <u>KPIs for City Office:</u> BCC can use the Happy City Index to see how well they are doing in comparison to other major UK cities at providing the city conditions that create wellbeing

2. <u>Commissioning and Procurement:</u> BCC can use the Happiness Pulse to evaluate the wellbeing impacts of three-year projects ran by commissioned voluntary and social sector organisations. Wellbeing data from these projects can then be inputted into the WellWorth tool to demonstrate their long-term policy and financial impacts

3. <u>Measuring Social Value:</u> BCC can also use the Happiness Pulse to capture the social value of commissioned projects or services

4. <u>Neighbourhood Plans:</u> City neighbourhoods can use the Happiness Pulse and an additional bespoke module of specific questions (i.e. Happiness Pulse + Neighbourhood Pulse) to collect data at a neighbourhood, ward and street level. This data can be used to inform the development and assessment of Neighbourhood Plans

5. <u>City Initiatives:</u> Major city projects, such as Resilient Cities or Learning Cities initiatives, can use the Happiness Pulse and WellWorth tool in their measurement and evaluation processes.

Appendix A: Local partner organisations

Local partner organisation	No. Happiness Pulse users
Avon Wildlife Trust	34
Almeda	18
Bristol City Council Department of Culture	49
Care Forum	24
ERS	10
Fair Trade Network	21
NatraCare	9
Social Response	9
Second Step	19
Triodos	70
University Hospitals	216
What's Right	16

Appendix B: Representativeness of Happiness Pulse sample

Gender

	Happines Pulse (N)	Happines Pulse (%)	Bristol (%)	% High/Low Proportion
N(Male)	506	32.18829517	50	-17.81170483
N(Female)	1066	67.81170483	50	17.81170483

Age

	Happines Pulse (N)	% High/Low Proportion	Bristol (%)	% High/Low Proportion
N(16-24)	236	14.29436705	19	-4.70563295
N(25-64)	1351	81.82919443	65	16.82919443
N(>65)	64	3.876438522	16	-12.12356148

Ethnicity

	Happines Pulse (N)	Happines Pulse (%)	Bristol (%)	% High/Low Proportion
White British	1423	85.1076555	78	7.107655502
Other White	133	7.954545455	6	1.954545455
BME	116	6.937799043	16	-9.062200957

Employment status

Happines Pulse (N)		Happines Pulse (%)	Bristol (%)	% High/Low Proportion

In employment		75.9430605	76	-0.05693950178
Unemployed		1.992882562	5	-3.007117438
Economically inactive		22.06405694	20	2.06405694
	Unpaid work	2.348754448	2	0.3487544484
	Long-term sick	0.9964412811	4	-3.003558719
	Family/home	1.708185053	5	-3.291814947
	Retired	5.765124555	2	3.765124555
	Student	11.2455516	6	5.245551601