



**WIRRAL
INTELLIGENCE
SERVICE**

Archive: Research content WIS Website

**Wirral Intelligence
Service**

August 2021

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Background

This document contains an amount of content formerly held of Wirral Intelligence Service website – section Research. Although in some cases this might be considered older information it is nonetheless important local knowledge and will still inform practice in years to come.

Research (Our Work)

Research is generating new knowledge by addressing clearly defined questions with systematic and rigorous methods to improve the health and wellbeing of the Wirral population. Research is central in providing the evidence needed to transform services and improve outcomes e.g. transforming mental health.

The use of evidence and evaluation will improve how we measure the impact of our work, by learning from what works well, and what doesn't. We are an organisation that is committed to fostering a culture that seeks out research evidence and applies this evidence in decision-making. To communicate openly about how research is contributing to improving and protecting the health and wellbeing and reducing health inequalities of the residents in Wirral.

Wirral Intelligence Service operates alongside and engages strategically and operationally with partner organisations locally and nationally who undertake, support, and use research. In many cases there is a need for research and analysis tailored for a specific need. Experts in data management, analysis, health economics, economic and predictive modelling and performance will provide seamless and bespoke intelligence support to evidence based decisions.

The team provide and support the following:

- Research answers a specific question; aims to test hypotheses;
- Evaluation provides practical information to help decide whether a development or service should continue or not.
- Evidence or literature review presents published information in a particular subject area.
- Social Marketing & Geodemographics, or Customer Insight, segments our population, providing in-depth information about the needs and behaviours of local people.
- Modelling – economic, predictive and simulation modelling are approaches we use to test scenarios or generate information within a simplified framework designed to illustrate complex processes.
- Health economics and Social Return on Investment are concerned with issues related to efficiency, effectiveness and value in health and healthcare systems and health-affecting behaviours such as smoking.

[View examples of completed research work by Wirral Intelligence Service](#)

[Using evidence and intelligence to inform approaches, methods, and outcomes; case studies and examples](#)

Examples of research completed by Wirral Intelligence Service

- **Collins, B. J., Cuddy, K., & Martin, A. P. (2017). Assessing the effectiveness and cost-effectiveness of drug intervention programs: UK case study. *Journal of addictive diseases*, 36(1), 5-13.**
This study used local data for Wirral to understand whether the ‘test on arrest’ scheme as part of the drugs intervention programme was cost effective in funnelling people into drug treatment and reducing subsequent crime. The study combined drug treatment data with arrest data from Merseyside police. This study found that the Drug Interventions Program was both effective and cost-effective with an average net cost saving of £668 (or £6,207 including one case of homicide).
- **Collins, B. (2013). Using a survey to estimate health expectancy and quality-adjusted life expectancy to assess inequalities in health and quality of life. *Value in Health*, 16(4), 599-603.**
This study used data from the North West Mental Wellbeing Survey to look at inequalities in life expectancy, healthy life expectancy and using a novel method to calculate quality adjusted life expectancy and found that factoring quality of life into the calculation meant that the gap increased from 8 years to nearly 13 years. This study has been cited by six studies and has been influential in terms of methodologies.
- **This analysis was repeated with data for the whole of the North West in a subsequent study, Collins, B. (2017).**
Results from a Well-Being Survey in the North West of England: Inequalities in EQ-5D–Derived Quality-Adjusted Life Expectancy Are Mainly Driven by Pain and Mental Health. *Value in Health*, 20(1), 174-

Here we have a range of reports produced by staff from Wirral Intelligence Service and partners.

Life Expectancy in Wirral

- [Life Expectancy in Wirral](#) (August 2020)
- [Life Expectancy in Wirral](#) (August 2019)
- [Life Expectancy in Wirral](#) (February 2018)
- [Life Expectancy in Wirral](#) (June 2017)
- [Life Expectancy in Wirral](#) (August 2016)
- [Life Expectancy in Wirral](#) (January 2014)

More reports...

- **Health Needs of people aged 40 - 60 in Wirral**
This is a [review of healthcare and lifestyle data](#) around people aged 40-60 in Wirral. 40-60 year olds in Wirral have high rates of lifestyle issues like being overweight or obese, being inactive and drinking too much alcohol. [View this report](#).
- **Takeaway for a Change (May 2015) Wirral Council - Public Health & Environmental Health**
A pilot project to encourage behavioural change within families by raising awareness of and improving attitudes towards healthier options available at local fast food outlets. [View Takeaway for a Change report](#)
- **Older Peoples Isolation Index: Results for Wirral (March 2015)**
Wirral postcodes were mapped by their chance of containing older people who are at risk of social isolation, using an older people isolation index (OPII) based on Mosaic geodemographic data. We found that Bidston & St James ward and Birkenhead & Tranmere ward had the highest average older people isolation index score. There were three hotspots of potential older people at risk of isolation around Oxton, West Kirby & Hoylake, and New Ferry, Bebington & Bromborough. For more information view the [full report](#).
- **Helping Ourselves: A health engagement process for Wirral male carers (April 2014 - March 2015) ([Summary Report](#)) ([Full report](#))**
Holistic Health care services have been made available to unpaid Wirral carers for three years, through Public Health and Wirral Clinical Commissioning Group funding but it was acknowledged that male carers were under-represented (20%) in those seeking support. In order to address this inequality, a health engagement process modelled on the Australian "pit-stop" brief intervention was implemented, which focused exclusively on male carer needs. A 2-hour holistic health check was the entry point to a range of services including traditional acupuncture, remedial massage, Bach flower therapy, Tibetan sound healing, food energetics dietary therapy and meditation, and all tailored according to individual need. Read reports here ([Summary Report](#)) ([Full report](#))

- **Trauma and Injury Intelligence Group (TIIG): Merseyside and Cheshire Themed Report: Assaults in the home across Merseyside and Cheshire (2011/12 to 2012/13)**
This [Trauma and Injury Intelligence Group \(TIIG\) report](#) provides an analysis of assault in the home attendances to Accident and Emergency Departments (AEDs) across Merseyside and Cheshire, reporting on patient demography and incident levels between April 2011 and March 2013. For more information view the [full report](#).
- **Trauma and Injury Intelligence Group (TIIG): Trends in violence across the North West of England**
This [briefing](#) for commissioners and providers is to look at violence-related attendances to all Emergency Departments across the North West of England, supplemented by North West Ambulance Service (NWAS) data, providing a much more detailed picture of violence-related activity across the region. For more information view the [full report](#).
- **Exploring the Social Value of Community Assets in Wirral (2014)**
[This research](#) involved evidencing the social value and impact of community assets in Wirral on individuals and their communities, with a particular focus on their impact on mental health and wellbeing; developing a framework to identify the types of community assets in Wirral; categorising assets using a qualitative research methodology and evaluating a representative sample of community assets, using a social value approach.

Child Poverty

(also see [Child and Family Poverty page](#))

- [Child and Family Poverty section \(January 2019\)](#)
- [Child Poverty and Health in Wirral](#) (September 2012)
- [Child Poverty and Hospital Admissions in Wirral](#) (September 2012)

Mental Health

- **Wirral Mental Health Survey (Wirral results) 2013**
The first North West Mental Wellbeing Survey was carried out in 2009 and provided a baseline measure of the regions mental health and wellbeing. A repeat of the survey was carried out in 2013. View the [summary of the Wirral results](#).
- **The North West Mental Wellbeing Survey 2009**
The survey was undertaken in response to a need to understand more about positive mental health and wellbeing. A total of 18,500 people from across the North-West were sampled using face-to-face interviews, the Warwick and Edinburgh Mental Wellbeing scale (WEMWBS) and 43 questions on feelings, relationships, life satisfaction, social capital and networks, general health, lifestyles, life events, finance (plus demographics such as employment and education). Every primary care trust (PCT) area in the North West was sampled. Some PCTs commissioning additional interviews to ensure they received more robust information for their local area (Wirral PCT commissioned additional interviews).

Housing

- **Health Needs Assessment for Homelessness in Liverpool City Region**
Liverpool Public Health Observatory was commissioned by the Merseyside Directors of Public Health to deliver this [Health Needs Assessment of homelessness in Liverpool City Region](#). This followed concerns that the recent economic downturn and changes to welfare provision were negatively impacting on housing security across the region. View the [full HNA report](#) for more information.

Maternity Services

- **Maternity Services Review (November 2012)**
Between November 2011 and November 2012 NHS Wirral carried out a [review of Wirral maternity services](#) which evaluated both main providers of maternity services in Wirral to establish comparable evidence of the maternity outcomes and service user experience of both services. The approach included a review of the underpinning literature, case studies of good practice in maternity care, analysis of performance data, an [externally commissioned evaluation](#) and 'patient learning' and anecdotal evidence from service users. For earlier surveys of Wirral maternity services, undertaken in 2009/10, please see below.
- **Wirral Maternity Matters Survey (February 2010)**
NHS Wirral commissioned this survey, which included both a [quantitative](#) and [qualitative](#) survey of mothers who had used NHS Wirral maternity services between July and August 2009 to gauge satisfaction with the service and identify whether improvements made to in January 2009 had been noted by mothers.

Smoking/Tobacco

- **CLear assessment of local tobacco work in Wirral (2014)**
[CLear](#) is an improvement tool which enables areas to review their local action to tackle tobacco against the latest evidence-based practice. It provides a framework for benchmarking, peer review and continuous improvement, with an emphasis on local priorities. It identifies areas for further improvement and has been designed for use with local authorities, tobacco alliances and health and wellbeing boards. Director of Public Health, Fiona Johnstone invited the CLear team to review Wirral services and work.
- **Smokefree Hospitals Initiative (2013)**
This [evaluation report](#) describes the outcomes and outputs from a Stop Smoking Social Marketing Project that took place across Wirral University Teaching Hospital (WUTH) sites (Arrowe Park and Clatterbridge Hospitals) in 2013.
- **Wirral Smoking Prevalence Report (November 2011)**
This [prevalence report](#) presents the results of telephone interviews with over 3,500 Wirral residents carried out in September and October 2011, with an emphasis on the more deprived areas of Wirral.
- **Wirral Smokers Panel Survey Report (June 2011)**
This [2011 survey](#) followed-up just under 500 of the smokers who agreed to be contacted again during an initial, bigger survey of over 3000 Wirral residents carried out in late 2009 (see the Wirral Smoking Prevalence Survey November 2009 below)

- **Wirral Quit Stop Final Report Presentation (August 2011)**
This [presentation](#) summarises the evaluation of the Quit Stop smoking campaign.
- **Wirral Quit Stop Evaluation Key Findings (May 2011)**
This [evaluation of Quit Stop](#) was commissioned by NHS Wirral to help re-engage smokers who may previously signed up with stop smoking services, but were reluctant to do so again.
- **Wirral Smoking Prevalence Survey: Follow-up Report (November 2010)**
This [follow-up](#) to the original 2009 survey on smoking prevalence in Wirral reports data on over 3,500 Wirral respondents. It was carried out predominantly in the areas of Wirral which are classed as being the 20% most deprived (in England).
- **Wirral Smokers Panel Survey: 1st follow-up (June 2010)**
This [survey](#) followed-up 600 of the smokers who agreed to be contacted again during an initial, bigger survey of over 3000 Wirral residents carried out in late 2009 (see the Wirral Smoking Prevalence Survey November 2009 below)
- **Quantitative Research into Smoking in Wirral (December 2009)**
This [Powerpoint presentation](#) shows the results of 200 x 16 minute on-street interviews carried out in December 2009 into smoking habits in Wirral. Interviewers concentrated on people from routine and manual (R&M) groups where smoking is known to be higher and the survey gives information on details such as how many times people have previously tried to quit, how many people want to quit, things which people thought would help them to quit etc.
- **Wirral Smoking Prevalence Baseline Survey (November 2009)**
This [survey](#) of over 3000 Wirral respondents was carried out predominantly in the areas of Wirral which are classed as being the 20% most deprived (in England). It was done because whilst we know that smoking is higher in areas of deprivation, it was not known what the prevalence of smoking in Wirral's areas of deprivation actually was. In addition, 600 people of the original 3000+ who responded to this survey, have agreed to be contacted on an ongoing basis so future prevalence and trends can be monitored.
- **Insight research for NHS Wirral Stop Smoking Service (August 2009)**
This [Powerpoint presentation](#) shows the results on 30 in-depth interviews which were carried out with smokers and recent ex-smokers only in Wirral in August 2009. The aim of this campaign was to find out about people's motivations, how they find out about things (like services) and what their ideal stop smoking service would look like.

Evidence or literature review presents published information in a particular subject area

- **Wirral Reducing the Strength Evaluation (December 2018)**
Wirral Reducing the Strength (RtS) scheme is an initiative which works to limit the sale of cheap, high strength lagers, beers, and ciders of ABV 6.5% or more by working with local alcohol retailers. The overall aim of the project is to reduce alcohol related harm, alcohol related admissions to hospital and to improve perception of community safety. [This evaluation](#) examines how well RtS has performed in relation to achieving its original aims.
- **Frailty Evidence Review (August 2018)**
There is a lack of consensus on a definition for frailty. [This evidence reviews](#) sets out to gather the latest and best known information to help understand the implications of frailty on a local population.
- **Wirral Council and Selective Licensing for Privately Rented properties (September 2018) Phase 2**
Wirral introduced its first Selective Licensing Scheme on 1st July 2015 in 4 small areas, and in October 2018, Councillors agreed to extend Selective Licensing into another four areas. [This business case and consultation report](#) make the case for extending into four new areas which are experiencing the worst symptoms of low demand and poor property condition in the borough, and the new scheme will be live from 1st April 2019.
- **Wirral Council and Selective Licensing for Privately Rented properties (October 2014) Phase 1**
The private rented sector is the only housing option available to some of the most vulnerable people in society. However, in some areas, properties in the private rented sector suffer from poor conditions and anti-social behaviour, which are both a consequence and a cause of low demand. The Housing Act 2004 attempted to counter this by introducing the concept of Selective Licensing for privately rented properties in designated areas in order to improve both the lives of tenants and communities. A wide range of evidence from a variety of relevant data sources, including low demand and ASB has been compiled [in this document to help identify potentially up to four Wirral LSOAs which would be most appropriate to become areas of Selective Licensing](#). These evidence reports underpin this decision making process.
- **Social Prescribing (July 2015)**
[Review of the current literature](#) and evidence of effectiveness of social prescribing interventions (for adults)
- **Older People & Social Isolation (April 2015)**
[Review of the current literature and evidence](#) on effective interventions to tackle social isolation amongst older people
- **Beyond fighting fires: the role of the fire and rescue service in improving the public's health (March 2016)**
The fire and rescue sector is transforming the way in which it delivers services. [This document updates](#) the LGA's previous "[Beyond fighting fires](#)" document (April 2015). It showcases the wide variety of ways, and different partners that the sector is working with on transformation, including the police, health services and the ambulance service.
- **Evidence Review on Social Prescribing Public Health Intelligence Team (July 2015)**
Current interest in social prescribing is based on its potential benefits in three areas: reducing prevalence of and improving mental health outcomes and therefore demands on health services; improving community wellbeing; and reducing social

exclusion. For more information view the [Public Health Intelligence Team evidence review](#).

- **Physical Activity - Rapid Evidence Review (No. 106) Liverpool Public Health Observatory (April 2015)**
Liverpool Public Health Observatory (LPHO) was commissioned by the Merseyside Directors of Public Health, through the Cheshire & Merseyside Public Health Intelligence Network, [to produce this rapid evidence review on physical activity](#).
- **Evidence review for Older People and social isolation (May 2015)**
[Evidence review](#) was produced by Business & Public Health Intelligence Team
- **Making Every Contact Count (MECC) (May 2015)**
Making every contact count, or MECC, is a term used widely to describe the mechanism of brief advice and behaviour change interventions. This [Rapid Evidence Review](#) was produced by the Wirral Intelligence Service.
- **Exploring the Social Value of Community Assets in Wirral (2014)**
This [report and detailed work](#) involved evidencing the social value and impact of community assets in Wirral on individuals and their communities, with a particular focus on their impact on mental health and wellbeing; developing a framework to identify the types of community assets in Wirral; categorising assets using a qualitative research methodology and evaluating a representative sample of community assets, using a social value approach.
- [Damp Housing and its health effects](#) (September 2012)
- [Unemployment and Health](#) (September 2012)
- [Re-employment and Health](#) (September 2012)

Health Economics

Overview

Health economics are concerned with issues related to efficiency, effectiveness and value in health and healthcare systems and health-affecting behaviours such as smoking. Using economic techniques in evaluation is important in understanding how efficient and cost effective services are, and where services can be improved. Evaluation provides practical information to help decide whether a development or service should continue or not. The teams offer around evaluation is mainly considering quantitative (numbers) data and understanding the context, putting together a logic model or theory of change to plan an evaluation and understand what outcomes are important.

Here are a number of the completed evaluations:

- [Cost effectiveness of Alcohol Services in Wirral \(Executive Summary\)](#)
- [Cost effectiveness of Alcohol Services in Wirral](#)
- [Cost effectiveness of Drug Services in Wirral](#)
- [Cost effectiveness of Health Action Areas and Health Trainers in Wirral](#)

- [Cost effectiveness of Nurse Practitioner Services for homeless residents in Wirral](#)
- [Cost effectiveness of Smoking Services May 2015](#)
- [Cost effectiveness of Weight Management Services \(Executive Summary\)](#)
- [Cost effectiveness of Weight Management Services](#)

Health economic techniques have a lot of similarities with the Social Return on Investment (SROI) approach for appraising the impact of public sector investments. The SROI approach has taken on a greater importance since the Public Services (Social Value) Act was passed in 2012, which compels public sector bodies to consider social value in procurement, where previously they might have just awarded a contract to the lowest bidder.

In considering traditional health outcomes like life years gained, alongside outcomes from a broader perspective such as changes in employment, community cohesion, and changes in the environment, we aim to get a genuine idea of the impact of the services that we evaluate.

More economic evaluation reports that have been produced...

- [Cost effectiveness of Smoking Services May 2015](#)
- [Cost Effectiveness of Stop Smoking Services in Wirral: 2012/13 Update](#)
- [Economic Evaluation of NHS Wirral's Lifestyle & Weight Management Service \(2009\)](#)
- [Cost effectiveness Smoking Executive Summary](#)
- [Cost effectiveness Smoking Full Report](#)

Further content

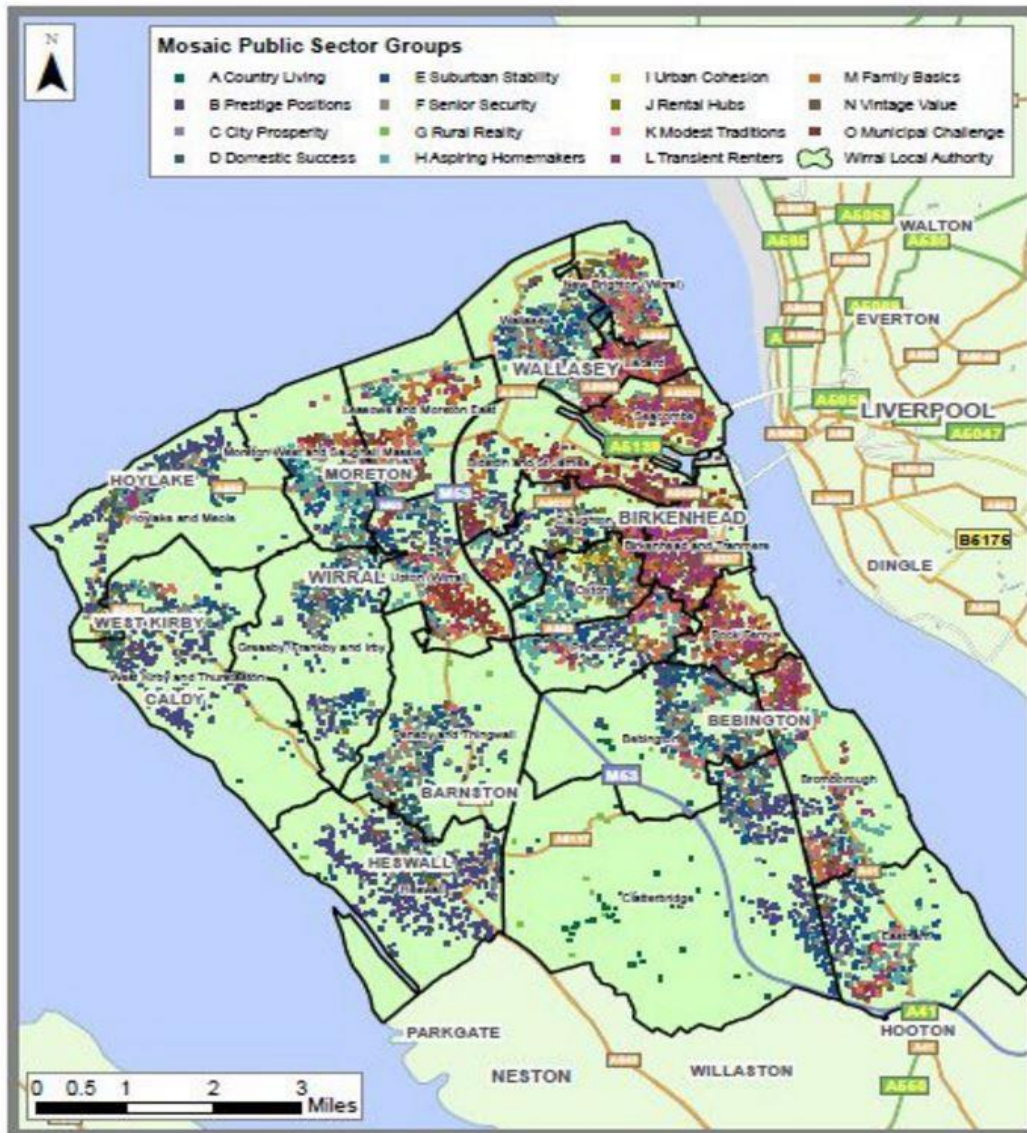
- **Health economics: evidence resource (September 2017)**
Provides a [summary of economic evidence](#) underpinning public health interventions.
- **Health economics: a guide for public health teams (September 2017)**
[Resources to help local commissioners](#) achieve value for money by estimating the return on investment (ROI) and cost-effectiveness of public health programmes.

Customer Insight

The current challenging financial climate for councils mean we need to make every effort to increase effectiveness and efficiency of our services, especially in an area such as Wirral, where the contrasts in both geography and demographics are stark.

One of the ways we can increase our effectiveness, is to 'segment' our population using geo-demographic packages, such as Mosaic.

The [2017 Mosaic Profile of Wirral](#) provides an overview of how the Wirral population looks when analysed using Mosaic.



Mosaic Public Sector Groups

Packages such as Mosaic have become more widely used by the public sector in recent years because they are useful in providing in-depth information about the needs and behaviours of local people.

They use a large number of open data sources including the Census, health, education, criminal justice system, housing, and consumer data (i.e. about products that people buy and their finances for example) to 'segment' the population into different groups, who can then be better targeted based on their preferences, needs and behaviours.

Using Mosaic means that information can be targeted just where it is needed. For example, information on how you can reduce your risk of falling as you age is not appropriate for people in their 20's, but it may be of interest to people in their 70's and 80's.

Targeting messages more effectively and ensuring that the right message is read by the right person at the right time is also cost-effective, as resources are not wasted informing everybody about issues which may not affect them.

The profiles we produce using Mosaic are used to inform and commission services. Below are some examples of the information we have provided to various teams and departments in Wirral to enable them target their work more effectively, as well as an overall profile of Wirral.

Mosaic is not appropriate for every situation or service of course, but it is one of several useful tools our team has access to, which informs and provides us with additional insight into the needs of Wirral residents.

Analysis carried out using Mosaic in Wirral	Want to find out more?
<ul style="list-style-type: none"> • Wirral Mosaic Profile 2017 • Birkenhead Parliamentary Constituency • Wirral South Parliamentary Constituency • Wirral West Parliamentary Constituency • Wallasey Parliamentary Constituency • Analysis of Wirral Stop Smoking Service clients • Communication preferences of the Wirral population • Wirral population • Smoking in pregnancy • Breastfeeding • Looked after children 	<ul style="list-style-type: none"> • Check out the National Social Marketing Centre website for examples of how social marketing has been used in the UK.

[A guide to using behavioural insights in local government](#)

Warren Hatter wrote this guide for Sunderland City Council, following some work using behavioural insights in a range of projects. Although written for an internal audience, Sunderland City Council are happy to share it.

Warren Says... "I really enjoyed working there, especially all the co-production with wonderful front-line staff; I got a lot out of it, and I hope that by sharing these insights, you will too"....

Those who work in local public services and many others may be interested in how behavioural insights (BI) can help. <https://warrenhatter.wordpress.com/>

Modelling

What is a model?

Economic, predictive and simulation modelling are approaches we use to test scenarios or generate information within a simplified framework designed to illustrate complex processes. A model is a simplification of the real world. A model will allow us to test more scenarios or generate information that we may not get from other data.

A model is basically a method to quantify effects of policy on health. It does this by:

- Assessing and comparing the impact of alternative public health intervention
- Demonstrating the health consequences of decisions
- Informing real decisions

In Wirral we currently use two forms of modelling - predictive modelling and simulation modelling.

Predictive Modelling

Predictive modelling quantifies the effects of health initiatives and interventions on health outcomes such as mortality and the occurrence of disease. It can also estimate the benefits of clinical and health interventions and include information about cost effectiveness information.

Examples of use

- [Development and piloting of an approach to risk profiling to identify patients that are at risk of emergency admission](#)
- [Cancer screening](#)

Simulation Modelling

Simulation models are computerised processes that are designed to cope with a wide range of complex systems. They provide evidence about how to cope with random problems, as alternatives to learning by doing or empirical research. They also aim to develop corporate knowledge about how changes in service delivery in one sector affect health outcomes and performance. We used SIMUL8 and iThink which allows complex system dynamic modelling.

Example of use

- **Wirral Drug and Alcohol Simulation Model**
Drug and alcohol abuse impacts on the individual, families, and wider communities. As well as leading to health problems, injury, and even death, it can impact on family relationships, ability to work, crime, domestic abuse, and anti-social behaviour. The intention is to try to create a base case of needs, demands and costs for drug and alcohol programmes in Wirral

For more information on our research approach, this Modelling work, or to find out if we could help you in your area of work, please contact the Wirral Intelligence Service at intelligencerequests@wirral.gov.uk

To subscribe to our bulletin please [complete this form](#)

Wirral Open Data

Open Data is data that anyone can access, use, or share, that is non-personal and non-commercially sensitive. Open Data creates value for residents by providing information in new and accessible ways to help them make decisions about their lives and their communities. It increases transparency and helps councillors and council officers be held to account for their decisions and policies.

Open Data also creates value by reducing the time spent providing data for individual requests, and by forming the basis of new apps and website functionality. Open Data can create value for businesses by making data available in formats that they can reuse for economic and social benefits.

We want to provide access to open data that Wirral Council creates that can be freely used, re-used, and redistributed, for any purpose, without restrictions. Open Data will be made available, via the internet, in an electronic format which supports its ready re-use, and with open licensing which allows its reuse. We will provide our Open Data under an Open Government Licence and publish at least 3 star Open Data*.

Wirral Open Data options

- [Wirral Open Data](#)
- [Wirral Local Plan](#)

National and other Open Data options

- [5 Star Open Data](#)
- [Government Open Data Portal](#)
- [UK Poverty data](#)
- [A-Z of NHS Digital Official and National Statistics Publications](#)
- [Government Statistics A- Z](#)
- [NHS England: Statistical work areas](#)
- [Office for National Statistics](#)

Contact details

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