National Suicide Prevention Alliance

Public Health England

Case Study: Evaluating suicide prevention activity in Bristol

> “Evaluation should be considered for all new initiatives at the planning stage to ensure appropriate information is collected from the outset. It isn’t an activity that should just happen at the end of the project as an afterthought.”

Professor David Gunnell, Professor of Epidemiology, School of Social and Community Medicine, University of Bristol

The challenges of evaluating suicide prevention activity using local suicide rates

Determining the impact of particular suicide prevention activities on suicide rates is challenging for a number of reasons:

1. Every single death by suicide is tragic for the people involved. Yet, from a statistical perspective, depending on the size of the population served by the local authority, the actual numbers of deaths is usually relatively small (10 to 40 each year for most authorities). The actual number of suicide deaths can vary tremendously from year to year as a result of random / natural processes. You would need to achieve a very large drop in numbers for it to be a “statistically” significant fall.
2. Any change in behaviour in local populations can take time to occur; it’s unusual to see a marked difference over the course of 1-2 years.
3. There are so many factors that can affect suicide rates (e.g. periods of recession, changes in prescribing, changes in coroner certification practices) that it can be difficult to disentangle the impact of any one particular intervention.
4. Regional collaborations, where the same prevention activity is rolled out across several local authorities may offer a better opportunity to assess impact on suicide rates.

Additional measures of impact that can be used

There is no single measure that can be used alone to evaluate impact, but a picture can be built up by looking across a number of factors.

Relevant indicators include:

- Hospital admission data for people attempting to take their own lives.
- Number of people who receive a psychosocial assessment after a hospital attendance for self-harm (*research evidence shows that approximately 20% of people who die by suicide have self-harmed in the previous year and that people who have a full assessment are at lower risk of repeating harm*).
- Method specific suicide rates, including a reduction in deaths at a high-risk location.
- GP prescribing patterns, because certain medicines are associated with high toxicity and overdose and one aspect of prevention work may be to focus on prescriber training and feedback initiatives.
- Changes in the quality of suicide reporting by the local media.

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- Numbers of people (both health professionals, gatekeepers and the general public) trained in suicide awareness/mental health first aid.
- Proportion of people who are in touch with primary care services, as well as those in contact with specialist mental health services in the period before their death (e.g. 4 weeks / 6 months). Although such data can be challenging to interpret as rises in the proportion of people who seek help before suicide may either reflect increased levels of help-seeking amongst vulnerable groups or deteriorations in the management of high-risk individuals.
- Number of men going to their GPs to talk about their mental health, in order to determine if there are increases in help-seeking. Or tracking if the attitude of men in high risk groups is improving in relation to talking about mental health.

It is likely that across your local multi-agency suicide prevention partnership, organisations will already be collecting useful data, so work closely with others to explore what is already known.

Important considerations

There are limitations to most of the relevant indicators, which can affect the reliability of the data for assessing the impact of suicide prevention activities. For example, there is a significant variation in practice between hospitals regarding admission practices for people presenting at A&E after an attempted suicide. This means that a change in the admissions rate may either reflect a reduction in the number of people trying to take their own lives, or a change in procedure such as introducing a 24/7 psychiatric liaison team, resulting in fewer people needing to be admitted whilst waiting for an assessment.

Suicide rates are influenced by national factors, including government policy. It means that regardless of the best of local endeavours, if for example, the economy takes a turn for the worse, then your rates could still go up, or more positively, if there was a significant national training or awareness raising campaign, then rates might go down.

Experience from Bristol's multi-agency suicide prevention group

Our local suicide prevention strategy has focused on delivering programmes of work where either research evidence shows there can be an impact on suicide rates or where we think they make good sense and have indirect supporting evidence. Our priorities are guided by the National Suicide Prevention Strategy. Activity has included working with local media, identifying high risk locations, delivering suicide awareness training to frontline professionals, targeting populations at the highest risk and ensuring that people who self-harm are receiving appropriate care. So, for example:

- Having identified a high-risk location, we worked with partners to introduce a range of measures including barriers and signage for helplines. There was a 50% fall in the number of deaths after barriers were put in place.
- We meet regularly with local media organisations to discuss their reporting of suicide and our Public Health team have reviewed local trends in the quality of suicide reporting. Developing a good relationship with the local media has been especially important this year as we have tragically had several student deaths.
- As part of the larger programme of work of the Improving Care in Self-Harm Health Integration Team (STITCH), we implemented a self-harm surveillance register at the Bristol Royal Infirmary that has subsequently been extended to Southmead Hospital and Bristol Children's Hospital to determine trends in self-harm incidence and management. Based on data recorded in the register and in collaboration with CLAHRC West, we have just published an economic evaluation of the impact of recent local investment in self-harm services. The evaluation provides evidence of the success of recent service investments and we hope it will lead to the continuation of the extended service for people who self-harm in Bristol.

- We are reviewing the proportion of prescriptions for old versus new style less toxic anti-depressants, and benchmarking our local patterns against national levels. We will then be able to do analysis to determine whether people admitted to hospital after overdose are linked to GP practices that prescribe more of the high toxicity drugs. From this we intend to undertake education sessions with GPs.

What would your top tips be to someone wanting to evaluate their activity?

- With limited budgets allocated to suicide prevention, there isn't always sufficient activity taking place in a strategic and integrated way for robust evaluation to offer real value. Exceptions to this are monitoring trends in deaths from local high risk locations and the provision of care for people who self-harm.
- Work in partnership. It's very common for there to be limited capability and capacity to undertake evaluation work, so work with others and get help.
- Use other indicators (see above), as these factors are often already being recorded by partners across the system.
- Be realistic; don't try and evaluate everything that you do. Pick one or two areas to focus on every couple of years.
- See monitoring and evaluation as being part of a continuous iterative process. It isn't an activity that should just happen at the end of the project, or just at one set point in time.
- Don't reinvent the wheel. If good research already exists that demonstrates an intervention makes a difference then implement it locally; evaluation should focus on good quality implementation / programme fidelity.
- Look at nationally available evidence and sources of data about changing trends, such as the findings of the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness.
- Focus on interventions with evidence of effectiveness. For some local community activities, it is important to recognise that such evidence may never be forthcoming, and they are often based on good will rather than local authority / NHS funding. Such activities may be best evaluated using qualitative approaches.
- Despite the best of intentions, it is possible that some interventions may cause more harm than good. For example it is possible that high profile signage / helpline numbers may highlight the presence of a high risk location. Ensure possible adverse effects are considered (and monitored) in any evaluation.

Ideas for getting help locally with evaluation

There are a number of places that you could try approaching for advice and support:

- Local universities: they have the knowledge and skills to undertake research. Undergraduate and postgraduate students are often looking for projects, particularly where there is value to the wider community.
- Local NHS R&D Departments.
- The National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care (NIHR CLAHRC): they conduct high quality research projects where the results can be quickly and effectively translated into benefits for health and social care. There are different centres across each NHS region. In Bristol, CLAHRC West supported the economic evaluation of recent investment in self-harm / liaison psychiatry assessment services.
- The National Institute for Health Research School for Public Health Research: a partnership between eight leading academic centres with excellence in applied public health research in England. There are sometimes opportunities through them to do local evaluation projects.
- Public Health England's eight Knowledge and Intelligence teams.