

# Developing Criteria for Prevention Activities in Clinical Settings: Illustrated in their application in the All Wales Diabetes Prevention Programme

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## Background

Achieving a coordinated, system-wide approach to prevention in clinical settings is a strategic aspiration, underpinned in Wales by a favourable legislative and policy context and extensive NICE guidance relating to prevention activities. While there are many individual-level prevention activities implemented in clinical settings, consideration of both systems for and scale of implementation is required to realise impact on health outcomes at a population level. Challenges to delivering a coordinated approach to prevention in clinical settings include the lack of consensus regarding:

- the appropriate scope of NHS services in the delivering of prevention
- explicit criteria to support consistent decision-making about the appropriateness of any given prevention activity
- the means of maximising impact for any given prevention activity at population level.

## Our Aim

Based on the Wilson and Jungner criteria for Screening, the Primary Care Hub, Public Health Wales (PHW) propose logical and generic 'Criteria for Prevention'. The criteria emphasise the important features common to any prevention activities in clinical settings and have potential to facilitate a robust and consistent approach to decision making in relation to any given prevention activity. The purpose is to facilitate best use of the scarce resources available for prevention activities, to maximal potential health gain and minimal potential harm as a result of prevention activities. In this presentation we:

- Describe the proposed criteria for prevention
- Describe the benefits of using common criteria as a basis to assess the appropriateness of any given prevention activity and promotes consistent decision-making
- Give concrete examples of how the criteria for prevention were applied in the development of the All Wales Diabetes Prevention Programme.

The criteria for prevention presented here pertain to any prevention activities delivered at the individual level and are equally relevant to primary, secondary and tertiary prevention activities.

'Clinical settings' are defined as any setting where health care interventions are delivered.

## 1 | The pathway for prevention activity

Prevention activity in clinical settings can be considered as a process, which in generic terms, we refer to as the pathway of prevention activity. Figure 1 illustrates the pathway for prevention activity, beginning with a trigger event and passing through several steps before the goal of preventing an adverse outcome is reached.

The 'trigger' to a prevention activity can vary according to the risk being identified. E.g.

- Life stage e.g. routine childhood immunisations
- Behavioural risk factor e.g. smoking
- Clinical risk factor e.g. raised blood pressure
- Social risk factor e.g. social isolation
- Health care associated risk e.g. poly pharmacy

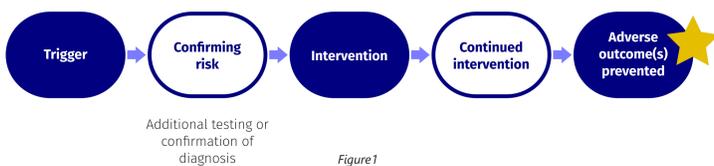


Figure 1

For each step in this pathway process, robust criteria are proposed, as illustrated in figure 2.

The criteria for prevention include criteria that pertain both to the whole pathway of prevention, and others which pertain to a single step of that pathway.

For example, the criterion 'there is evidence that the prevention activity will effectively reduce the risk of the adverse outcome occurring' pertains to the whole pathway, whilst the criterion 'acceptability of a test to both health care workers and those receiving the service' is specific to the Identification of risk step of the pathway.

Ideally, all criteria should be met before a prevention activity is committed to. In practice it is acknowledged that in the complexity of health care services and clinical settings, this may not be fully viable, in which case, the criteria can help identify what is further needed to ensure the proposed prevention activity is appropriate.

## 2 | The Criteria for Prevention

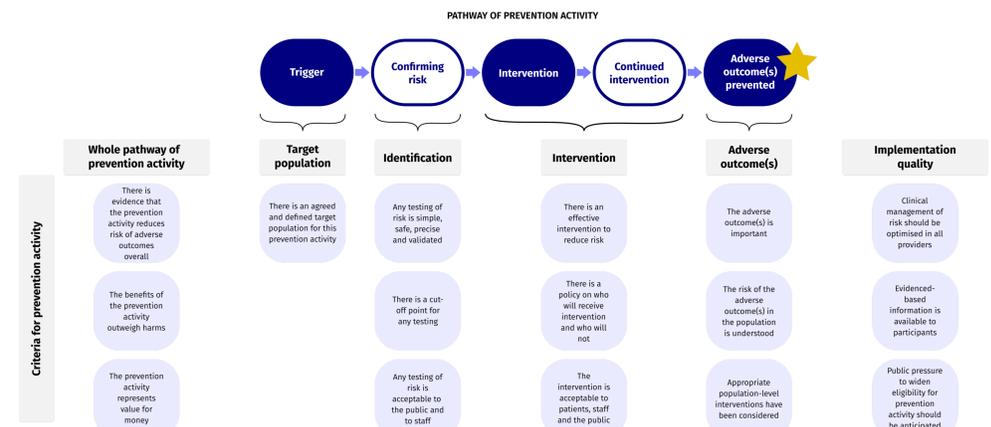


Figure 2

## 3 | Quality of implementation

Where approaches to prevention meet the criteria for prevention, implementation becomes vital. Without it, the scope and reach of the approach will not be able to achieve population effect.

In figure 3, the pathway of prevention activity is shown, mapped against different stages of implementation required for an individual to pass through to achieve the desired effect (x-axis). The bars in the graphic illustrate the proportion of individuals that make it through the pathway to any given stage (the exact steps shown will vary according to context, but the figure illustrates the concept). The overall effectiveness of implementation is largely determined by the proportion of individuals making it through to the final stage of the pathway (proportion benefiting). The drop-off in the proportion making it through to each subsequent stage of the pathway is referred to as implementation decay.

Optimising the proportion benefiting from any prevention activity is important, both at the individual level and for a prevention programme/ activity to be effective and cost effective at the population level. Mitigating implementation decay across the pathway of prevention is an important consideration when designing prevention activities and for quality improvement and learning. This is a useful tool when considering equitable access and uptake.

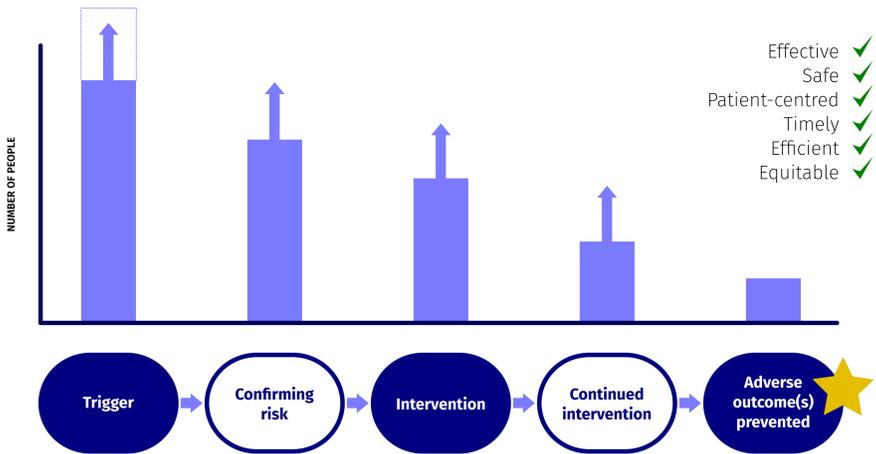


Figure 3

## 4 | Using behavioural science to optimise the uptake of prevention activities

By actively considering implementation decay in relation to the pathway of prevention activity, consideration can be given to its mitigation and to optimising equitable access and uptake. To support this, it is helpful to think in behavioural terms and draw on behavioural science approaches to:

- define the desired behaviours,
- understand the determinants of those behaviours,
- gain insight into related barriers, levers or facilitators in relation to the desired behaviour
- identify effective behaviour change techniques to facilitate the desired behaviours to inform the intervention design or quality improvement approach to optimise uptake.

To optimise uptake, consideration is required to promote the desired behaviours from all key actors involved; in this case, the healthcare workers and the person receiving the prevention intervention.

As illustrated in figure 4, the behaviours involved may be complicated, with varying determinants. Barriers to desired behaviours may be multiple and varied. Purposefully adopting behavioural science approaches and a systematic approach to mitigating implementation decay is therefore helpful.

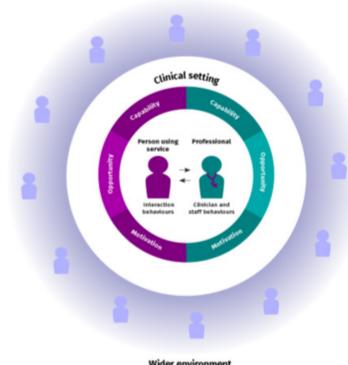


Figure 4

## Applying the criteria for prevention in the development of the All Wales Diabetes Prevention Programme

The All Wales Diabetes Prevention Programme AWDPP is a phased Wales wide programme which aims to reduce the risk of developing type 2 diabetes T2D in those identified to be at increased risk. The programme facilitates a more systematic and equitable approach to T2D prevention across Wales and aims to reduce the variation in approach to T2D prevention in primary care. It is a targeted programme that sees dedicated, trained healthcare support workers, with oversight from dietitians, deliver a single 30-minute brief intervention to people who have had a blood test that shows that they are at an increased risk of type 2 diabetes [HbA1c 42-47 mmol/mol]. Here we illustrate examples of how the criteria for the prevention are met, in the design of the AWDPP.

### Examples of how the criteria for prevention are met in the design of the AWDPP

**Criteria re: Effectiveness and Value**  
The AWDPP intervention itself is aligned to NICE Guidance PH38: T2D - Prevention in people at high risk. The delivery model builds on that of 2 pilot projects undertaken in Primary Care Clusters in Wales, each of which was independently evaluated and found to have positive outcomes in terms of both effect and value. Underpinning the AWDPP intervention design, work included: a logic model and theory of change.

**Criteria re: Target Population:**  
The target population is specified in the inclusion criteria: for example criteria include adults (18 years and over) at increased risk of T2D and never having a diagnosis of diabetes previously (See Figure 5).

**Criteria re: Identification of Increased Risk:**  
The increased risk is identified by a simple blood test (HbA1c), which is acceptable to health care workers and people receiving the service. The thresholds for eligibility to the programme are HbA1c between 42-47 mmol/mol (in the last 3 months).

**Criteria re: Intervention:**  
The AWDPP intervention is a single, brief intervention, acceptable to healthcare workers and people receiving the service. There are explicit inclusion and exclusion criteria to prevent predictable harm. Exclusion criteria include groups of people for whom the intervention may be harmful, who are unlikely to benefit from it, or for whom a more appropriate intervention exists; for example, people who have low BMI, people who are terminally ill and pregnant women respectively.

**Criteria re: Adverse Outcome:**  
T2D and its complications are well understood, with respect to their impact on and costs to the individuals who develop it, their families and at the population level.

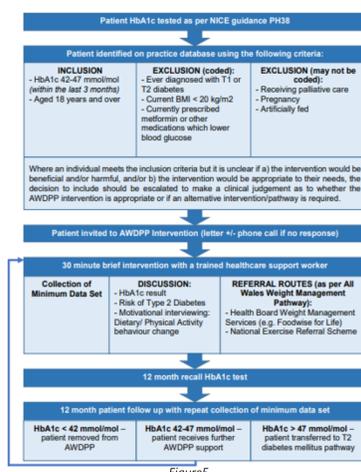


Figure 5

### Using behavioural science in the development of the AWDPP:

Behavioural science has informed the development of the AWDPP, primarily with a view of promoting equitable access and uptake. For example:

- To encourage people to take up the service if offered, our resources have been developed in collaboration with patient reference group representatives and are being provided in several languages, with a view to increasing their accessibility.

- To promote equitable access and uptake to the AWDPP, engagement work has taken place within certain communities and groups identified in the equality impact assessment as being at increased risk of T2D but also less likely to take up the service if offered. To support these engagement activities, a topic guide informed by the application of behavioural science in the form of the COM-B model for behaviour change was developed and used.

- For easy and efficiency, templates have been developed and are used to collect the minimum data set and considerable work has taken place to allow for appropriate data sharing, to support complete data collection with minimal effort.

### The utility of the criteria for prevention in their application to the AWDPP

Referring to the criteria for prevention whilst designing the AWDPP supported a robust and comprehensive approach to its design and ensured all critical features of a prevention programme were addressed. Illustrating how these criteria have been met in its development should enable partners across the system to have confidence in the strength of the AWDPP design and its suitability for implementation at scale.