

In this article...

- Incidence of bowel cancer in Wales and uptake of the Bowel Screening Wales programme
- Barriers to uptake, including deprivation, gender and perceived threats
- The nurse's role in encouraging engagement with screening programmes

Bowel screening: adherence factors and the nurse's role in promotion



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Key points

The Bowel Screening Wales programme is a key part of Public Health Wales' long-term strategy to improve the country's health

Uptake of the programme is lowest in the most deprived areas; this has been linked to socioeconomic background, education and its impact on health literacy

Uptake is higher among women, which may be due to the behaviours dictated by cultural perceptions of masculinity

Nurses can encourage uptake by exploring patients' perceived threats, benefits and barriers, and supporting self-management

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Abstract In Wales, bowel cancer is the fourth most common cancer type. Early intervention and diagnosis are key; the Bowel Screening Wales programme is, therefore, a priority in the Welsh Government's strategic ambition to improve the health of the population. This article explores the key determinants of health and considers the effects of deprivation and gender as contributory factors to non-participation in the screening programme. It also discusses the nurse's role as health promoter and educator about the importance of self-screening.

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Bowel cancer is the fourth most common cancer type in Wales, accounting for 900 deaths and 2,200 diagnoses annually (Bowel Cancer UK, 2018). This compares to its global ranking of third most common cancer type by the World Cancer Research Fund ([Bit.ly/WCRFStats](https://bit.ly/WCRFStats)). Regular bowel screening reduces the risk of death from bowel cancer by over 16% (Bowel Cancer UK, 2018) and national screening programmes feature heavily in Public Health Wales' long-term strategy for improving the health of the country (PHW, 2018). Because of this, population-based bowel screening has become a priority public health issue, with nurses often seen as indispensable conduits for its success through the role of health promoter and often enabler.

This article considers key determinants of health in relation to the uptake of the Bowel Screening Wales (BSW) programme and discusses factors affecting adherence. The Nursing and Midwifery Council (2018) urges its registrants to seek out every opportunity to promote health and prevent illness. This article explores the nurse's role in relation to the BSW programme and

demonstrates the impact nurses can have on its success. Health promotion is integral to modern-day health and social care provision. The World Health Organization's *Ottawa Charter for Health Promotion* recognises five key areas that contribute to the philosophy of health promotion:

- Development of healthy public policy;
- Supportive environments;
- Strengthening community participation;
- Upskilling and empowering individuals;
- Redirecting health services to align with these aims (WHO, 1986).

Health promotion can, therefore, mean improving the health of a nation through effective partnership working and supporting individuals to achieve good health through prevention and education. BSW launched its population-based screening programme for people aged 60-74 years in 2008. In 2018-19, it reported its highest level of participation since it started, with 57.3% ($n=160,652$) of those eligible ($n=280,556$) returning the test kit (PHW, 2020a). Following a positive test result, 1,744 procedures were carried out (Table 1, p40).

The BSW programme feeds directly into PHW's strategic plans and ambitions to transform the health and social care

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Table 1. Detection rates during procedures following a positive screening result in 2018-19

Finding	Detected (n)	Total procedures (n)	Procedures resulting in detection (%)
Bowel cancer	232	1,744	13.3
Polyp	1,223	1,744	70.1
Adenoma	948	1,744	54.4

system in Wales; by adopting a prudent healthcare model, screening programmes such as BSW are key determinants to its success (Public Health Wales Observatory, 2018). The aim is that the expansion of screening programmes will improve survival rates and it is envisaged that preventive approaches such as this will cost less in the long term than reactive treatment regimens (Masters et al, 2017). Bowel-screening programmes are self-managed and reliant on targeted populations proactively completing and returning the test kit (Fig 1). The role of the nurse in this area of health promotion is, therefore, often overlooked, yet fundamental to its uptake and success.

“In 2018-19, uptake rates of the BSW programme were higher among people living in the least deprived areas of Wales”

Deprivation and bowel screening

Research has shown that the most disadvantaged people have a more negative experience of healthcare and experience more illness and disease than those in less deprived areas. The more deprived a population, the poorer its health and ability to access good-quality healthcare, defined as a ‘social gradient to health’ (Marmot, 2015).

After evaluating a number of studies, Duffy et al (2017) concluded that people in the most deprived areas of a population typically do not engage with cancer-screening programmes due to suboptimal standards of health literacy and subsequent feelings of inertia. Initially it would appear that the BSW programme removes many of the barriers that could affect the ability to promote good health practices. There is no cost for the test kit and participants are not required to travel to a healthcare setting, thereby, removing traditional socioeconomic, environmental and behavioural barriers, such as financial, geographic and cultural considerations. Wardle et al (2016) argue this minimises inequity in the delivery and uptake of the screening programme. However, PHW’s

(2020a) statistics demonstrate that the most deprived are still at a disadvantage. In 2018-19, uptake rates of the BSW programme were higher among people living in the least deprived areas of Wales (64.9%) than those in the most deprived areas (47.6%). This poses the need for the Welsh Government to focus on equality of outcome as opposed to equality of opportunity.

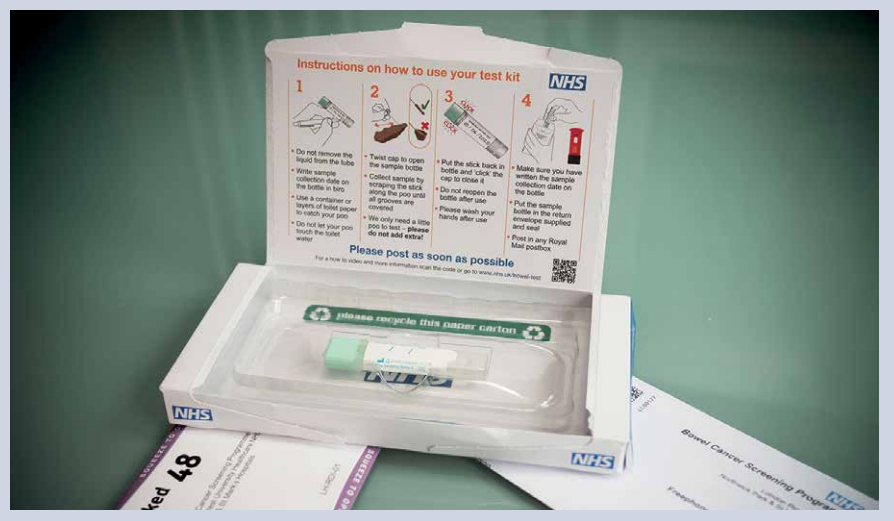
There is an irrefutable link between educational attainment and socioeconomic background. The more deprived an area, the lower the educational achievement of its population due to absence from school and higher levels of illiteracy (Jansen et al, 2018; National Foundation for Educational Research, 2014). Research carried out by Woudstra et al (2019) confirms educational achievement can directly influence health literacy and the ability to participate in screening programmes. This has been attributed to the degree of engagement with the health literature accompanying a test kit: non-participants often report not having read it (Duffy et al, 2017).

Nurses must be mindful of the link between socioeconomic background, educational attainment and later-years cognition. A study by Gale et al (2015) reports

that people with a lower socioeconomic status are statistically more likely to experience a degree of cognitive impairment that affects their ability to engage with a test kit and accompanying literature, resulting in non-participation. This is exacerbated by the age demographic of the BSW programme and the increased likelihood they are living with cognitive decline (Chida et al, 2008).

A PHW public consultation in 2018 revealed that the most deprived populations ranked screening programmes as a key priority for supporting themselves to improve their health (Welsh Government, 2018). PHW’s (2020a) BSW statistics do not break down positive test results into levels of deprivation; however, WHO’s (2018a) research indicated the most deprived people in a country are more likely to develop noncommunicable disease due to a suboptimal standard of living, as a result of factors such as poor diet, poor education and decreased exercise. The failure to break down test results and the findings from the PHW public consultation are concerning when considered alongside the Welsh Government’s (2019a) plan for a prudent healthcare model. The chief medical officer for Wales stated that transformation of the

Fig 1. Example of a bowel screening text kit



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healthcare system in Wales, as well as future budgetary allocation and prioritisation of services, will be determined by a data-driven needs analysis (Welsh Government, 2019b).

Gender and bowel screening

Gender has been recognised as a key determinant of health. Men engage less with screening programmes, with the gap widening significantly in areas of socioeconomic deprivation (Shankleman et al, 2014). This is supported by BSW statistics: in 2018-19, uptake of the screening programme was 58.8% among women and 55.7% for men (PHW, 2020a).

Typically, men are less likely to voluntarily participate in preventative programmes. The seminal work of Courtenay (2000) and the philosophy of hegemonic masculinity suggest that traditional masculine traits are the primary cause of men not actively seeking out opportunities to check the state of their health. Courtenay (2000) theorised that cultural perceptions of masculinity force men to conform to certain behaviours, including increased risk-taking and a refusal to engage in preventive health initiatives. This is recognised in the WHO's (2018b) advice to challenge this gender preconception to improve the state of health for men, and Smith et al (2020) suggest a specific focus on male health promotion and its barriers can have a positive impact on the uptake of health promotion strategies.

A failure to engage with such strategies is not necessarily an indication that a man does not care about his bowel health. Robertson et al (2015) advise health professionals not to make assumptions about reasons for non-uptake and suggest men are more likely to have increased health anxiety. Due to societal pressure to not be seen as weak, research has shown that men will typically decline opportunities to proactively engage in positive health interventions (Smith et al, 2020). Nurses should, therefore, make a concerted effort to actively provide health promotion advice to men to ensure they have the same access to information and preventive initiatives as women.

Other reasons for non-uptake

As discussed above, research confirms that socioeconomic factors and gender impact directly on a person's decision about whether to participate in a screening programme. When considered in comparison with other cancer-screening programmes, such as cervical and breast screening, BSW suffers a significant

Box 1. Principles of Making Every Contact Count (MECC)

- Interaction should be brief and informal conversations that encourage people to think about, and take responsibility for, their own health
- MECC approach allows the nurse to identify or create appropriate moments where they can have a friendly conversation about a health issue
- Interactions should not be forced or dictatorial but instead be supportive and empowering, with the patient recognised as being in control of the conversation

Source: National Institute for Health and Care Excellence (2014)

shortfall in uptake (PHW, 2020b). It could be argued that these screening programmes target women, who have been found to be more proactive in health interventions. However, fewer women participate in the BSW programme (58.8% in 2018-19) than breast and cervical screening programmes (PHW, 2020a; 2019).

Two of the most prevalent barriers to uptake of bowel screening are risk perception and the nature of the test. Smith et al (2014) found that misinterpretation of the literature accompanying the test kit resulted in non-adherence – particularly for people who were asymptomatic and believed they did not need to return the kit. An individual or family experience of bowel cancer increases a person's probability of completing a test; therefore, people without such experience are more likely to abstain from screening, with a fear of a positive test result being another contributory factor (Eckberg et al, 2014).

Finally, the nature of the screening test and the requirement to collect faeces samples are significant contributory factors in non-adherence, as found in Palmer et al's (2014) qualitative study: participants noted discomfort at the thought of having to handle faeces and cited embarrassment and shame due to faeces being regarded as taboo. Despite the BSW test kit being completed within the privacy of a person's own home, the researchers observed that the lack of a healthcare setting and a refusal to assume an active role in a health procedure were significant barriers to people taking part in NHS bowel cancer-screening programmes.

The role of the nurse

The challenge of the BSW programme is that it is self-managed. To this effect, it is firmly rooted in Rosenstock's (1988) health behaviour model of an individual's perceived threats, benefits and barriers to engaging in health-promoting behaviour. Triggered by a cue to action (in this instance the invitation to self-screen), Rosenstock theorised that subjective assessment of susceptibility and severity

“A nurse can have a positive impact on a patient's perception of the screening programme and improve their health status through early intervention”

of condition are notable contributory factors to decision-making, with the perceived benefits of taking part needing to outweigh the perceived barriers. Rosenstock's model can be applied to non-uptake of the bowel screening invitation; an integral part of the nurse's role is, therefore, to be mindful of the model and to identify the perceived threats and how these may affect an individual's likelihood of taking part in the screening.

The Welsh Government's plan for transitional healthcare – and the subsequent shift in health responsibility – confirms that nurses should be agents of public health and embed health promotion into their daily clinical practice (While, 2014). The role of the nurse in health promotion is to support, advise and signpost where appropriate, recognising they are part of a larger, multidisciplinary team working in partnership with other healthcare agencies. Health promotion is often opportunistic; nurses must use appropriate strategies to ensure their patients benefit from each interaction. Making Every Contact Count (MECC) is a recognised framework for health promotion advice that should be at the forefront of all healthcare practice (Beaufort Research, 2017) (Box 1).

Motivational Interviewing (MI) is often used alongside MECC to explore a person's thoughts about what is important to them and to establish their motivation for commitment and change (Rosengren, 2017). When using MI, the nurse must be mindful of the fact that it is a collaborative two-way conversation that recognises the patient as the expert in their own health. Rather than focusing on advising a patient, MI aims to acknowledge their feelings about a health issue and identify

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intrinsic motivations and reasons for any ambivalence they feel towards it.

In relation to bowel-screening uptake, nurses should use MECC and MI to encourage people to return the test kit and explore the perceived threats, benefits and barriers discussed above that may contribute to non-participation. Whether in primary or secondary settings, nurses should aim to engage in conversations with people who are eligible for bowel-screening programmes and recognise when an opportunity arises to discuss bowel health. They should also aim to recognise people who are less likely to engage and proactively use MECC and MI to openly and honestly explore any ambivalence and reasons for non-participation. They should be aware of resources available to encourage participation, including leaflets and digital support (Bowel Cancer UK, 2018), using them with patients where appropriate. By having honest conversations about bowel screening and dispelling some of the surrounding myths, a nurse can have a positive impact on a patient's perception of the screening programme and improve their health status through early intervention.

The landscape of health and social care is currently evolving to become a prudent healthcare model in which health responsibility is significantly shifted to make individuals more accountable for the safeguarding of their own health (Welsh Government, 2019b). As such, the nurse's role in supporting and encouraging people to become better able to self-manage their health is increasingly relevant.

QUICK FACT **2,200** Bowel cancer diagnoses in Wales each year

Conclusion

The BSW programme is a key public health issue. Its success is integral to the Welsh Government's realisation of its long-term strategy for a healthier nation. The BSW 2018-19 report confirmed key determinants of health have a direct impact on the rate of participation; deprivation was found to be the most significant factor, with many people in the most deprived areas of Wales failing to take part in the programme. This has been linked to socioeconomic background, education (and its impact on health literacy) and later-years cognition.

Gender is also a key determinant of health and a barrier to screening: men are less likely to engage with the programme,

with traditional masculine traits cited as reasons for non-uptake. Finally, perceived threats, benefits and barriers have been identified as factors in decision-making about participation in screening.

The role of the nurse in supporting people to participate in the BSW programme should involve actively engaging those who are eligible – and particularly those who are less likely to engage – and exploring individual concerns by using strategies such as MECC and MI. Nurses are often seen simultaneously as health promoters and enablers and should, therefore, embed these philosophies into their everyday clinical practice. **NT**

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