

# Breaking the quality-equity cycle when implementing prevention programmes

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Globally, health systems are increasingly investing in the delivery of prevention programmes for chronic diseases such as diabetes, with the goal of improving quality of life, reducing long-term costs of medication, use of healthcare services and lost productivity associated with illness.<sup>1</sup> However, these investments are only effective if they reach the full range of intended populations, including those populations and settings that would benefit the most from the delivery and health impact of such programmes. The expected benefits of prevention programmes are predicated on successful enrolment of and engagement among those at risk of developing the disease. This requires explicitly tracking and continuously monitoring widening health inequities or exacerbation of implementation gaps across all phases of implementation, particularly among populations experiencing numerous structural barriers to health and healthcare access.<sup>2,3</sup>

## BREAKDOWNS ALONG THE REFERRAL PATHWAY TO DISEASE PREVENTION

Taking diabetes prevention programmes as an exemplar, studies have shown that the value of such programmes is sensitive to the extent to which there is widespread enrolment of and engagement among those most at risk of developing diabetes,<sup>4</sup> programme attendance and achievement of lifestyle or behavioural goals.<sup>5,6</sup> Racial and socioeconomic inequities in factors that put people at greater risk for developing chronic diseases like diabetes are well documented.<sup>7,8</sup> Access to preventive services like diabetes prevention programmes may not be equitable for all populations (eg, people may face barriers related to costs, language, competing life demands or health issues and a well-placed historical mistrust of healthcare settings),

with the potential to further exacerbate existing social and health disparities.

Attendance and involvement in such programmes often largely rely on identification and referral of people who are at greatest risk of developing diabetes, typically by health professionals in primary care settings. This instinctively makes sense, as primary care professionals are key implementers and gatekeepers in most health systems. Furthermore, advice and/or referral by a healthcare professional has been found to be associated with higher likelihood of participation in diabetes prevention programmes.<sup>9</sup> However, critically, the results shown by Parkinson and colleagues<sup>10</sup> in this issue of *BMJ Quality & Safety* suggest this referral pathway may reinforce or worsen inequalities in care provision among populations most in need of such preventive services, which underscores the need to consider equity and the potential for worsening health inequities from the outset of implementation efforts.

Parkinson and colleagues examined whether recruiting patients to the English National Health Service (NHS) Diabetes Prevention Programme (DPP) via primary care clinics reinforced inequities in care provision between practices. This longitudinal study analysed data on quality of care and annual referrals to the DPP in the first 4 years of the programme (2016/2017–2019/2020) across 6871 general practices in England. Quality of care was assessed using data from the Quality Outcomes Framework (QOF). The primary outcome was referrals received by the DPP providers. Clinical quality indicators pertaining to diabetes management, accessibility of general practices and general practice financial resources were examined. Referral volumes were significantly positively



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associated with clinical quality, consistent across all quality indicators, that is, general practices with better scores on diabetes management were also more likely to refer patients to the DPP. Referral rates were not significantly associated with practice accessibility, regardless of how access was measured. Finally, referral rates were associated with some indicators of practice resources; namely whether the practice received additional funding from the NHS.

Parkinson and colleagues acknowledge that it is not clear where the breakdown in the referral chain to the DPP is occurring. Before jumping to solutions, we need to first understand why current patterns of referral exist at the patient, provider and systems level, and the context-specific barriers and enablers to address gaps and change those patterns. This could provide insight into how the referral pathway is being implemented within practices providing a lower quality of care and if it is not being fully implemented among all patients, why it is not. Applying an equity focus to programme implementation would also mean engaging with socially disadvantaged groups to identify and prioritise the barriers they face and working together to identify solutions. Such an approach requires understanding these inequities that exist at multiple levels—that is, both among individuals eligible for the DPP who do not receive it and primary care providers delivering services in practices where quality of care is deemed low based on QOF scores. Studies suggest that primary care providers' reasons for not engaging in disease prevention, including DPP, include practical issues such as workload issues, lack of time, limited knowledge and lack of skills. Some providers may also consider referrals to preventive programmes non-essential or believe certain patients are not interested or able to apply programme learning, prompting a decision not to discuss the programme.<sup>11 12</sup>

### POTENTIAL SOLUTIONS

Parkinson and colleagues propose two approaches to address the inequities in DPP referrals: (1) providing additional support and resources to practices providing lower quality of care and/or (2) using alternative methods of recruitment rather than through primary care.<sup>10</sup>

#### Supporting practices

The first approach implicitly assumes the issue is one of motivation and resources at the general practice level. Practices with lower quality of care may be more likely to be in socioeconomically deprived areas and have fewer resources, more competing demands, higher volume of patients with chronic disease and more complex health and social needs.<sup>13 14</sup> Recently, Ashworth and colleagues have argued that healthcare funding structures in the UK entrench health inequities and that QOF payments should be weighted for deprivation.<sup>15</sup> There is also some evidence that certain types

of incentives targeting primary care are associated with increased engagement with prevention programmes at the provider level. A recent study, also based on the NHS DPP, found that outcome incentives (ie, payments linked to the number of patients referred) were associated with statistically significant increases in referrals and attendances.<sup>16</sup> Structural incentives (ie, lump sum payments to support necessary infrastructure) and process incentives (ie, payments linked to actions taken in the process of generating referrals) did not appear to stimulate participation in the DPP.

However, in the study by Parkinson and colleagues,<sup>10</sup> practices were already part of QOF (a financial incentive scheme), and staff resources were not significantly associated with DPP referral rates, suggesting other factors may be the key drivers of the documented gaps. Few studies examining disease prevention in primary care have considered the influence of organisational context (eg, working relationships, organisational readiness, implementation culture, leadership support and programme champions, and ethos within the practices and their relative priorities) on the extent to which services are delivered.<sup>17</sup> Future research is needed to develop and test implementation strategies to address some of these provider-level and organisational barriers to implementation. For example, at the provider level, the documented barriers to referral suggest that practices may need support to protect provider time to screen, discuss and refer. Providers and leadership may benefit from information about the benefits for different patient groups or focused training on how to conduct risk assessment and to effectively counsel patients to attend DPP. At the organisational level, implementation strategies such as audit and feedback<sup>18</sup> may help by highlighting referral rates, patterns and the profile of patients referred to DPP, as compared with other practices. Strategies that enhance organisational readiness and synergise existing infrastructure to implement the DPP may also prove fruitful.<sup>19</sup> However, these strategies make assumptions about the nature of the breakdown in referrals and as mentioned, further research with providers and patients is needed to understand the reasons for referral patterns and to inform strategy selection and development.

#### Supporting patients

The second solution put forward by Parkinson and colleagues is to explore alternative methods of recruitment and greater engagement of patients (external to provider referral) to address inequities. When selecting alternative methods of recruitment, it is important to consider how to better engage patients who are socially vulnerable or experience health inequities as they may be less likely to be reached by such systems and programmes.

Online self-referral has been introduced in the NHS DPP. There is limited evidence on the potential

impact of such self-referral pathways on programme referrals and reach, that is, differences in the types of patients accessing a programme via self-referral versus other referral pathways, and whether the referral mode exacerbates or reduces disparities. In studies that have explored the impact of self-referral on disparities, the results have been mixed. For example, a study comparing different referral pathways to psychological support services in the UK reported fewer disparities via a self-referral pathway as compared with general practitioner (GP) referral.<sup>20</sup> In contrast, a study exploring self-referral to cancer specialists in the USA<sup>21</sup> reported that this pathway could reinforce inequities in care; people who were white, or with higher income and educational attainment are more likely to self-refer. These findings may reflect differing healthcare contexts, trust and trustworthiness of healthcare systems, and payment models (USA vs UK) along with differences in disease progression (people with existing mental health problems or cancer diagnosis). However, the limited evidence base does suggest that the impact of self-referral warrants further exploration and should be implemented with caution, paying heed to whether it might further compound inequities.

Using self-referral alongside other approaches—and monitoring how these approaches may enhance the reach and recruitment of a wide range of participants—may be the most pragmatic way forward. Other programmes, for example, in Australia<sup>22</sup> have introduced a variety of recruitment pathways to enter the DPP. While the role of GPs remains central in the Australian DPP (they need to assess patients to exclude pre-existing diabetes), a referral to get to that stage can be mediated by other health professionals (eg, pharmacists), and through a consumer-led process (ie, social media campaign prompting people to visit the programme website or helpline and initiate referral). They report that approximately 20% of participants are recruited via the latter consumer-led process.

## CONCLUSION

This study by Parkinson and colleagues illustrates the importance of considering and explicitly tracking the extent to which health equity is promoted and inequities are exacerbated, when new chronic disease programmes are implemented and evaluated across a range of diverse settings and populations.<sup>23</sup> They found that practices providing lower quality clinical care for people with diabetes were also less active in referring to diabetes prevention programmes, which suggests this recruitment approach may compound and worsen existing inequities in diabetes care provision. More work is needed to identify where the breakdown in the referral pathway is occurring at the setting, provider and patient levels, but this study is valuable in highlighting problematic patterns and

focusing attention on variation in how the DPP is implemented across practices in the UK. The existence of such patterns should give pause for thought, and prompt careful adaptation and/or implementation of new referral pathways and supports as the programme develops further.

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