



QuitConnect: A Low-Bandwidth Digital Health Intervention for Smoking Cessation

Applying health promotion principles and the COM-B model to close the digital divide in smoking cessation support

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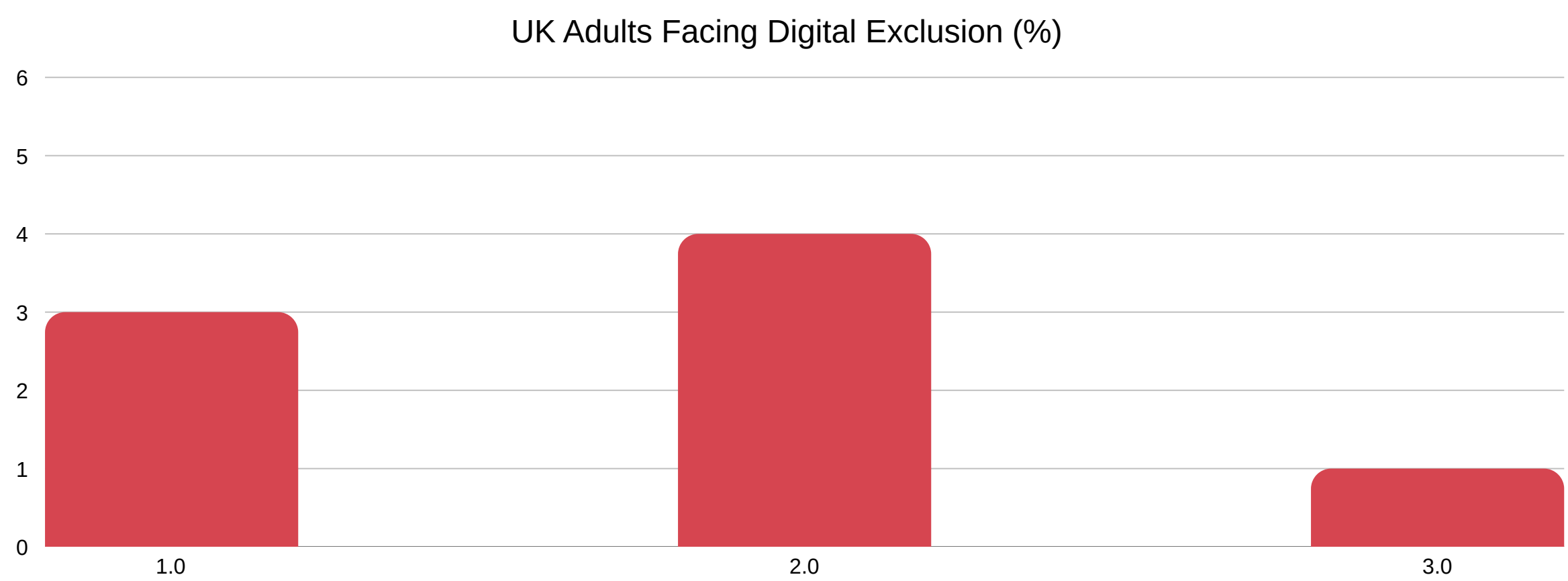
1 Background

Smoking is the single largest cause of preventable death in the world, responsible for over 8 million deaths each year; 1.2 million+ of these are attributed to secondhand smoke in non-smokers (World Health Organization, 2024). In Wales, smoking accounts for roughly 3,845 deaths and over 17,000 hospital admissions per year and affects those living the poorest and in manual professions most of all (Public Health Wales, 2026; NHS England Digital, 2025). Treatments recommended through national guidance such as nicotine replacement therapy, varenicline, and face-to-face counseling persist to be first-line non-digital treatments, however QuitConnect works well alongside digital approaches such as the help me quit telehealth service (NICE, 2021; Public Health Wales, 2026; Swansea Bay University Health Board, 2020), which already combines video consultations with a bilingual app where quit-date planning, logging cravings, and savings trackers are possible. QuitConnect aims to extend this support, which is proven to be successful, to those left out of access to current services due to barriers in cost/connectivity or skills. It is based around a low-bandwidth SMS/USSD tool to gain the highest connectivity coverage.

2 Health Promotion Values & Principles

Health promotion is defined as enabling people to increase control over, and improve, their health, guided by equity, empowerment, community participation and the reorientation of services toward prevention (World Health Organization, 1986). These founding principles, still central to contemporary practice, direct practitioners to make healthy choices accessible to every population group, not only those who are digitally confident, and to advocate on behalf of people who are structurally disadvantaged (Naidoo and Wills, 2016). QuitConnect operationalises these values by removing the smartphone and mobile-data barrier that currently excludes older, lower-income smokers from Help Me Quit's video and app channels (NHS England Digital, 2025; Total Telecom, 2025). Because it works on any basic mobile phone, QuitConnect embodies equity of access, while its savings tracker and milestone messages empower users to self-manage their own quit attempt.

Why Digital Exclusion Matters



Source: Total Telecom (2025)

Older, lower-income smokers are least likely to have reliable internet access, meaning app-based tools can miss those who most need support (NHS England Digital, 2025).

Table 1: Quit Attempts & Success

Cessation Aid	Attempts	4-Wk Success
Combination NRT	36.1%	53.9%
Nicotine vapes (alone)	16.6%	56.2%
All Local Services	100%	54.2%

Source: NHS England Digital (2025)

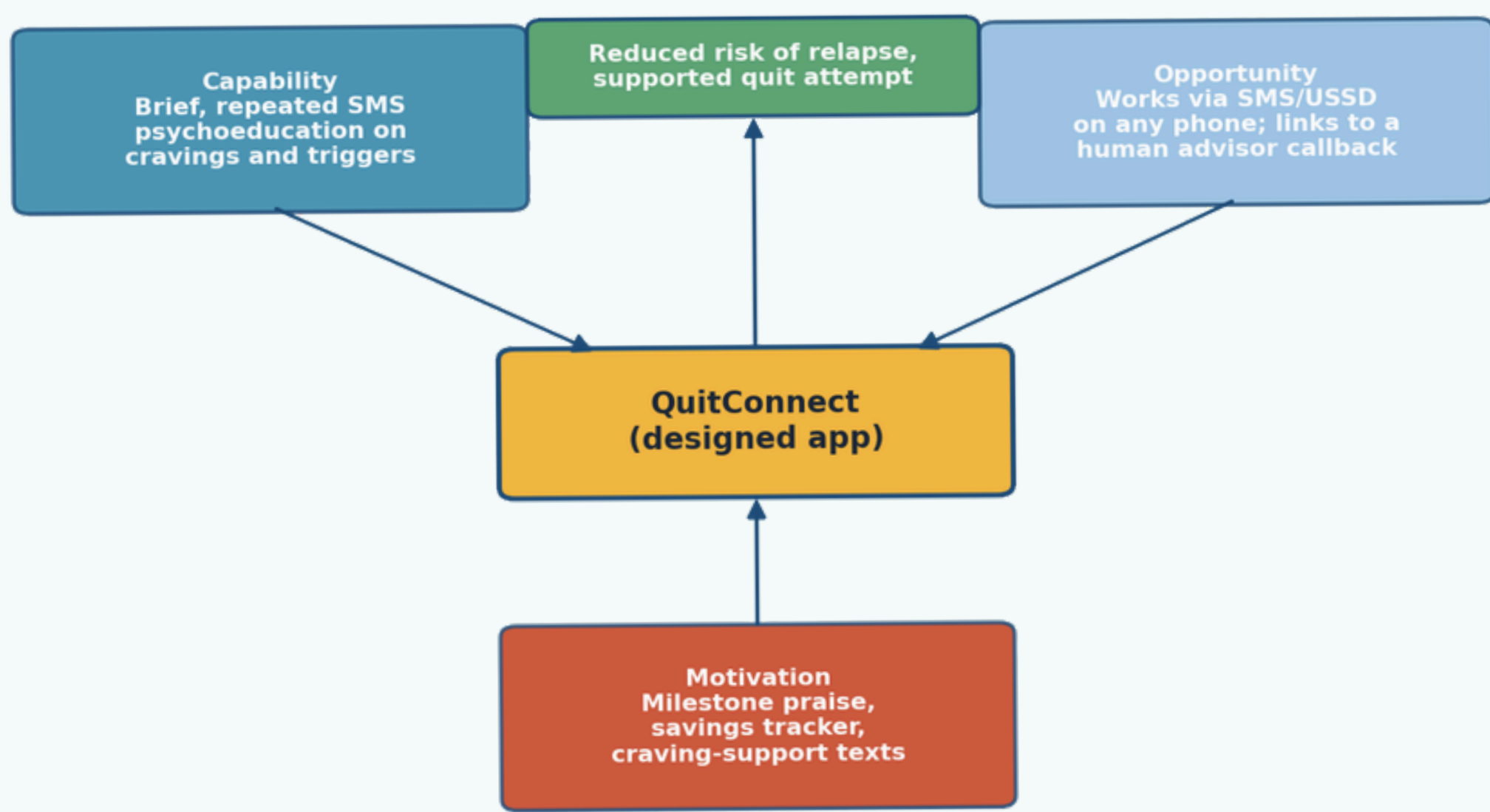
Pharmacological aids consistently outperform the overall service average, showing they work best paired with structured behavioural coaching — the exact principle QuitConnect applies through SMS.

3 Behavioural Change Theory

Based upon the Psychology principles found in the COM-B model, using its Behaviour Change Wheel for selection of intervention functions, we know that to achieve a behaviour you must have the Capability, Opportunity and Motivation for it, all of which QuitConnect addresses either actively or passively (Michie, van Stralen and West, 2011; Michie, Atkins and West, 2014). It directly targets psychological capability with the short, repeated psychoeducation texts explaining cravings and showing them their triggers. It passively improves their physical opportunity through the fact that the service removes the limitation presented by having a smartphone to be able to utilise the current video and App service offered by Breathe because it will work through simple text messaging (SMS) and therefore is not reliant. It addresses their motivation with the fact that craving-supporting texts immediately become available and are followed up by milestone praise, as well as a running tab of savings, which is an important visual progress update.

This structure aligns similarly to the staged, readiness-based logic applied in the Transtheoretical Model, already employed in the structure of the Help Me Quit coaching pathway (and may partly account for the strong and reliable evidence base reported), as similar text-based behavior change techniques like tailored motivational texts and automated coping messages have already seen significant success in the txt2stop trial (Prochaska and Velicer, 1997) Free et al., 2011, which saw rates of 6-month biochemically verified abstinence higher in the intervention where smokers received support texts than the control cohort who just received unrelated messages.

Figure 3: QuitConnect mapped to the COM-B model of behaviour change (Michie, van Stralen and West, 2011)



QuitConnect mapped to the COM-B model (Michie, van Stralen and West, 2011)

4-Week Quit Success Rates



Source: NHS England Digital (2025)

Combination NRT and vapes both beat the 54.2% service average when paired with coaching support.

Help Me Quit vs QuitConnect

Feature	Help Me Quit	QuitConnect
Needs smartphone	Yes	No
Needs mobile data	Yes	No
Bilingual (En/Cy)	Yes	Yes
Advisor escalation	Live webinar	Auto callback
Primary channel	Video & app	Text message

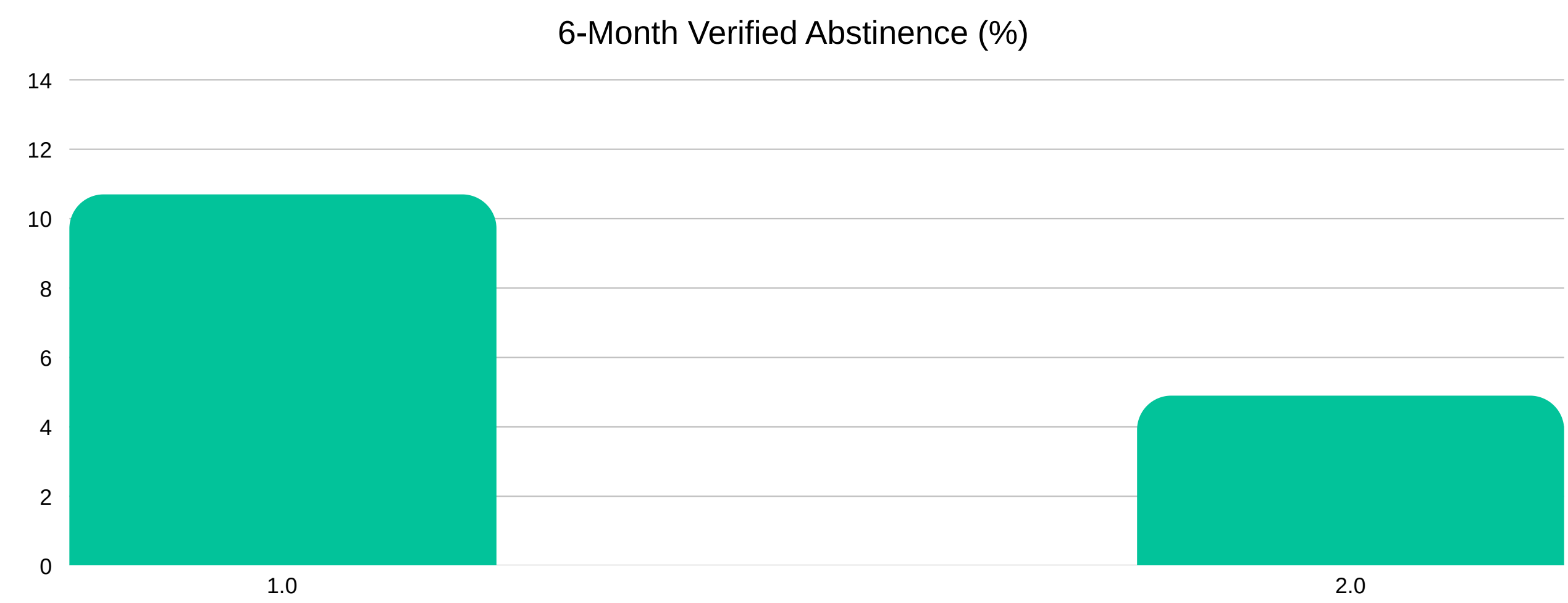
Source: Public Health Wales (2026); NHS England Digital (2025)

QuitConnect is a companion channel, not a replacement — it plugs directly into Help Me Quit's existing advisor escalation pathway, so no new clinical infrastructure is required.

4 Expected Outcome

Results of large randomised trials and systematic reviews indicate that text messages are more effective at increasing abstinence relative to minimal support - the Cochrane review pooled data over 14,000 participants (Free et al., 2011; Whittaker et al., 2019; Fang et al., 2023). QuitConnect would be able to extend the reach of Help Me Quit to digitally exclude smokers not needing to commission an expensive alternative service. However, it still depends upon how many people complete the long-ish programme and whether the services relied on self-reported and biochemically verified success which could inflate success rates (NHS England Digital, 2025).

Evidence: The txt2stop Trial

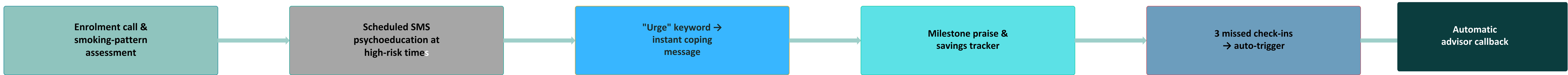


RR 2.20 (95% CI 1.80–2.68). Free et al. (2011)

5 Conclusion

QuitConnect carries clear implications for policy, suggesting that stop-smoking services should formally commission low-bandwidth SMS and USSD channels alongside existing video and app options to meet national digital health equity commitments (World Health Organization, 2021; NICE, 2021). For education, frontline advisors will need structured training to deliver consistent, evidence-based behavioural support entirely by text. For research, further randomised evaluation against biochemically verified outcomes is needed to confirm real-world effectiveness for digitally excluded populations, particularly older and lower-income smokers, before any wider roll-out across Wales.

How QuitConnect Works: SMS/USSD User Journey



QuitConnect uses SMS or USSD only i.e., basic phone, no app, no mobile data for smokers excluded from help-me-quit via app or video channels (NHS England Digital, 2025; Total Telecom, 2025).

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