Table 4. Population factors and their relationship to HIV testing

Population dimension	Implications for interventions
Barriers to testing	Segment the population according to their barriers to testing to target different interventions
	Interventions may focus only upon those who already have decided to test (e.g., focusing upon choice and utilizing user preference for technologies to facilitate regular testing)
	Interventions may focus upon persuading those who may need to test to actually test - through addressing the antecedents of testing decisions (e.g., focus upon costs and benefits of testing)
	Interventions may focus upon engaging those who are disengaged with HIV and are unaware of their risk (e.g., use mass media and focus upon maximum reach)
	Use of self-complete personalized risk assessment may be a viable tool to enable people to realize the need to test or when to test (see table 2) (however, this assumes a level of health literacy and prior engagement with the issue of HIV risk)
	Not only intervene in relation to reducing barriers and increasing enablers to testing <i>per se</i> but also to the particular use of the particular test (e.g., focus upon reducing barriers to the use of self-managed blood spot based testing)

	Address service provider barriers to testing such as targeting key difficult to reach but epidemiologically relevant sub-populations to increase opportunities for routine wider sexual health screening and wider service uptake
Lifespan perspectives	Target and tailor interventions to establish testing within the young and testing patterns across the lifespan thus promoting habit overall but also utilizing different intervention approaches for different groups (for example, differential use of social influence such as descriptive, injunctive or personal norms according to life stage)
	Encourage and establish routine habitual HIV testing practices within health and community test providers new to post to foster habit formation use across their career
Geographic considerations	Distance from traditional health and community services may be prohibitive to testing (rural populations may benefit from different testing interventions to more urban populations)
	Accessing local services for small closely knit communities may be problematic for perceptions of confidentiality (e.g. provide range of self-managed tests such as self-sampling)
	Digital services may be mediated by geography -both compromised (lack of digital infer structure) or enhanced (primary means of communication in dispersed populations)
	Postal self-sampling and testing options need to be able to be delivered conveniently and safely (e.g., packages should fit through standard mail slot)

	A variety of kit collection options should exist (e.g., harnessing user preference and perceptions of control)
Health literacy considerations	Consider how choice of test or interventions to encourage testing behavior may relate to the test kit's specific user demands – so what are the user requirements in relation to issues such as understanding of the window period, meaning of reactive results.
	Consider health literacy issues amongst the diverse provider populations who may offer the HIV test
Digital literacy considerations	Consider how accessing the test may presume digital literacy and economic resource with regard to the use of on-line service delivery
Intersectionality, syndemics and social vulnerability	Consider particular vulnerabilities of MSM who are BME, Trans, use substances, have learning difficulties, who have mental health or poorer physical health
	Interventions designed to cover more syndemic or 'upstream' determinants of ill-health may be needed to complement the proximal behavioural and psychological focus of HIV testing