

Appendix 1: Characteristics of GBMSM participating in the 2021 RiiSH-COVID survey by recruitment site

| | 2021 All participants (N=1,039) % (n) | 2021 participants recruited through social media (N=567) % (n) | 2021 participants recruited through Grindr (N=452) % (n) | p-value for differences in samples by recruitment site |
|--|--|---|---|---|
| Participants' characteristics | | | | |
| Median Age (years) (IQR; range) | 41 (31-51; 17-81) | 42 (31-52; 17-81) | 39 (31-50; 17-77) | |
| Age category (years) | | | | |
| 16-29 | 21.9 (227) | 21.7 (123) | 22.8 (103) | 0.024 |
| 30-44 | 37.2 (386) | 33.9 (192) | 40.9 (185) | |
| 45 and over | 40.9 (425) | 44.4 (251) | 36.3 (164) | |
| Gender identity | | | | |
| Cis male | 95.7 (994) | 96.1 (545) | 95.1 (430) | 0.671 |
| Trans male | 1.5 (16) | 1.6 (9) | 1.6 (7) | |
| Trans female | 0.3 (3) | 0.4 (2) | 0.2 (1) | |
| All other gender identities | 2.5 (26) | 1.9 (11) | 3.1 (14) | |
| Ethnicity | | | | |
| White (inc. white minorities) | 88.1 (915) | 90.5 (513) | 84.7 (383) | 0.005 |
| Black | 1.5 (16) | 0.5 (3) | 2.9 (13) | |
| Asian | 5.6 (58) | 4.6 (26) | 7.1 (32) | |
| Mixed and/or other ethnic groups | 4.8 (50) | 4.4 (25) | 5.3 (24) | |
| Sexual identity | | | | |
| Gay | 80.9 (841) | 86.2 (489) | 74.6 (337) | <0.001 |
| Bisexual | 14.0 (145) | 9.9 (56) | 19.3 (87) | |
| Straight | 0.6 (6) | 0.7 (4) | 0.4 (2) | |
| All other sexual identities | 4.5 (47) | 3.2 (18) | 5.8 (26) | |
| Country of residence in the UK | | | | |

| | | | | |
|---|------------|------------|------------|--------|
| England | 85.6 (889) | 85.7 (486) | 85.2 (385) | 0.098 |
| Scotland | 7.5 (78) | 6.9 (39) | 8.6 (39) | |
| Wales | 4.7 (49) | 5.8 (33) | 3.3 (15) | |
| Northern Ireland | 2.2 (23) | 1.6 (9) | 2.9 (13) | |
| Born in the UK | | | | |
| Yes | 76.3 (793) | 77.1 (437) | 75.4 (341) | 0.543 |
| Highest educational qualification | | | | |
| Degree or higher | 56.8 (590) | 59.1 (335) | 53.5 (242) | 0.076 |
| Currently employed | | | | |
| Yes | 75.7 (786) | 76.7 (435) | 75.0 (339) | 0.523 |
| Living alone | | | | |
| Yes | 39.4 (409) | 35.8 (203) | 43.1 (195) | 0.017 |
| Living with partner(s) | | | | |
| Yes | 33.3 (346) | 38.3 (217) | 26.6 (120) | <0.001 |
| Anxiety level | | | | |
| High | 36.1 (372) | 35.7 (202) | 36.3 (162) | 0.835 |
| Life satisfaction level | | | | |
| Low | 17.3 (179) | 15.7 (89) | 19.4 (87) | 0.120 |
| Living with a HIV diagnosis | | | | |
| Yes | 11.6 (120) | 12.2 (69) | 10.6 (48) | 0.441 |
| PrEP use (in the lookback) if HIV-negative/unknown | | | | |
| Yes | 31.9 (293) | 29.3 (146) | 34.4 (139) | 0.102 |

Appendix 2: Sexual behaviour reported since restrictions lifted (August- November/December 2020) by GBMSM participating in the 2021 RiiSH-COVID survey

| | 2021 survey (N=1,039) |
|--|------------------------------|
| Sexual behaviour (reported in the lookback) | |
| No. of new partners (if reporting sex) | N=946 |
| None | 22.0 (208) |
| One | 14.7 (139) |
| 2-4 | 28.0 (265) |
| 5-9 | 16.6 (157) |
| 10 or more | 18.7 (177) |
| Where participants met new sex partners | |
| Dating applications | 77.8 (574) |
| Gay websites | 41.1 (303) |
| Cruising location | 21.0 (155) |
| Private gay sex party | 10.7 (79) |
| Through friends | 14.5 (107) |
| Within household | 11.5 (85) |
| Elsewhere | 18.6 (137) |
| Through gay organisation or group | 7.3 (54) |
| No. of CAS partners (if reporting any CAS) | |
| One | 34.6 (238) |
| 2-4 | 35.2 (242) |
| 5-9 | 12.2 (84) |
| 10+ | 18.0 (124) |
| Use of chemsex drugs | |
| Ever | 14.4 (150) |
| In the lookback | 5.5 (57) |

Appendix 3: Characteristics of cis/trans identifying GBMSM recruited via Grindr for the 2017 and 2021 RiiSH surveys.

| | 2021 Grindr sample (N=437) % (n) | 2017 Grindr sample (N=1902) % (n) | P value (differences between profiles in 2021 vs 2017) |
|---------------------------------|---|--|---|
| Demographics | | | |
| | Median (IQR: range) | Median (IQR: range) | |
| Age (years) | 40 (31-50; 17-77) | 37 (28-48; 16-76) | |
| 16-29 | 22.7 (99) | 29.8 (566) | 0.009 |
| 30-44 | 40.7 (178) | 37.5 (713) | |
| 45-59 | 29.3 (128) | 29.3 (128) | |
| 60+ | 7.3 (32) | 7.3 (32) | |
| Ethnic group | | | |
| White | 84.9 (371) | 90.1 (1688) | 0.011 |
| Black | 2.8 (12) | 2.2 (42) | |
| Asian | 6.9 (30) | 3.8 (72) | |
| Mixed or other | 5.5 (24) | 3.8 (72) | |
| Gender identity | | | |
| Cisgender male | 98.4 (430) | 99.4 (1890) | 0.041 |
| Transgender male | 1.6 (7) | 0.6 (12) | |
| Country of residence | | | |
| England | 85.4 (373) | 93.7 (1782) | <0.001 |
| Scotland | 8.7 (38) | 0.6 (12) | |
| Wales | 3.2 (14) | 5.6 (106) | |
| Northern Ireland | 2.8 (12) | 0.1 (2) | |
| Educated to degree level | 53.8 (235) | 50.4 (951) | 0.203 |
| Single | 63.8 (279) | 61.9 (1173) | 0.450 |
| HIV positive | 10.8 (47) | 11.4 (217) | 0.697 |