

Summary of regional PCA biplots results tables

Region	Relationship	Geographic clusters	Outliers
Central (A)	PC2: V1, V3 V2,V6 Age, education, income and HIV prevalence/search	Cluster 1 A1. Belgorod A2. Bryansk A4. Voronezh A8. Kursk A9. Lipetsk A11. Orel A12. Ryazan A14. Tambov Cluster 2 A3. Vladimir A5. Ivanovo A6. Kaluga A7. Kostroma A10. Moscow Region A15. Tver A16. Tula A17. Yaroslavl	A18. Moscow City
North West (B)	PC1: V1, V2, V3, V6 Age, education, income HIV search/prevalence PC2: V4, V5 broadband fee, urbanisation	Cluster 1 B6. Kaliningrad B7. Leningrad Cluster 2 B1. Karelia B2. Komi B3. Archangelsk B5. Vologda B8. Murmansk B9. Novgorod B10. Pskov	B11. St Petersburg B4. Nenets Autonomous Region
South (C)	PC1: V4, V5 broadband fee, urbanisation, PC2: V1, V2, V3, V6 Age, Education, income, HIV prevalence/search	Cluster 1 C1. Adygia C2. Kalmykia Cluster 2 C4. Astrkhan C6. Rostov	C3. Krasnodar C5. Volgograd
North Caucasus (D)	PC2: V1, V2, V3, V4, V5, V6	Cluster 1 D1. Dagestan D3. Karbadino Balkaria D4. Karachayevo cherkassia Cluster 2 D2. Ingushetia D6. Chechnya Cluster 3 D5. North Ossetiya D7. Stavropol	D7. Stavropol

Volga (E)	<p>PC1: v1 Age</p> <p>PC2: v2, v3, v4, v5, v6 Education, income, broadband fee, urbanisation, HIV prevalence/search</p>	<p>Cluster 1 E1. Bashkortostan E2. Mariy El E5. Udmurtiya E8. Kirov E11. Penza E14. Ulyanovsk</p> <p>Cluster 2 “urban” E4. Tatarstan E9. Nizhegorod E12. Samara E13. Saratov</p> <p>Cluster3 “rural” E3. Mordovia E6. Chuvashia</p> <p>Cluster 4 E10. Orenburg E7. Perm</p>	E7. Perm E12. Samara
Urals (F)	<p>PC1: V5, V6 Urbanisation, HIV prevalence and search</p> <p>PC2: V1, V2, v3, v4 Age, education, income, broadband fee</p>	<p>Cluster 1 F3. Tyumen F6. Chelyabinsk</p>	F1. Kurgan F5. Yamalo Nenets
Siberia (G)	<p>PC1: V2 Education</p> <p>PC2: V1, v3, V4, v5, v6 Age, income, broadband fee, urbanisation, HIV search and prevalence</p>	<p>Cluster 1 G2. Buryatiya G4. Khakasiya G5. Altay G6. Zabaykalya</p> <p>Cluster 2 G10. Novosibirsk G11. Omsk G12. Tomsk</p> <p>CLUSTER 3 G7. Krasnoyarsk</p> <p>CLUSTER 4 G8. Irkutsk</p>	G9. Kemerovo
Far East (H)	<p>PC1:v 3, v6 income and HIV prevalence/search</p> <p>PC2: v1, v2, v4,v5 age, education, broadband fee, urbanisation</p>	<p>CLUSTER 1: H5. Amursk H8. Jewish Auton. Region.</p> <p>CLUSTER 2: H3. Primorsk H4. Khabrovsk</p> <p>CLUSTER 3: H1. Sakha (Yakutia) H2. Kamchatka</p> <p>CLUSTER 4: H7. Sakhalin H9. Chukotka</p>	H6. Magadan