



1. Sequence Cluster (SC)

- SC1-SA
- SC2-WA
- SC3-SEA
- SC4-AS
- SC5-AS

2. Continent

- Africa
- Asia

3. Country

- Africa
 - Egypt
 - Ethiopia
 - Ghana
 - South Africa
 - Malawi
 - Mozambique
 - Niger
 - The Gambia
 - Nigeria
- Asia
 - Thailand
 - Qatar
 - India
 - Philippines

4. Pneumococcal Genes

- Present
- Absent

SC Continent Country

Cody, alarP, bgaA, cbpA, cbpD, cbpE, cbpG, ciaH, ciaR, cipl, cpx, comA, comC, comD, comE, ero, hexA, hexB, hyl, iga, lytA, lytB, lytC, mgrA, hmra, nana, nanB, pavA, pavA2, pntA, pntB, pntD, pntE, piaA, piaB, piaC, piaD, ply, prtA, psaA, psab, psac, pspa, psrP, recA, recB, Pilus 1, Pilus 2, stkP, strH, zmpA, zmpB, zmpC, zmpR, zmpS

1. 2. 3.

4.

53 Nucleotide Substitutions