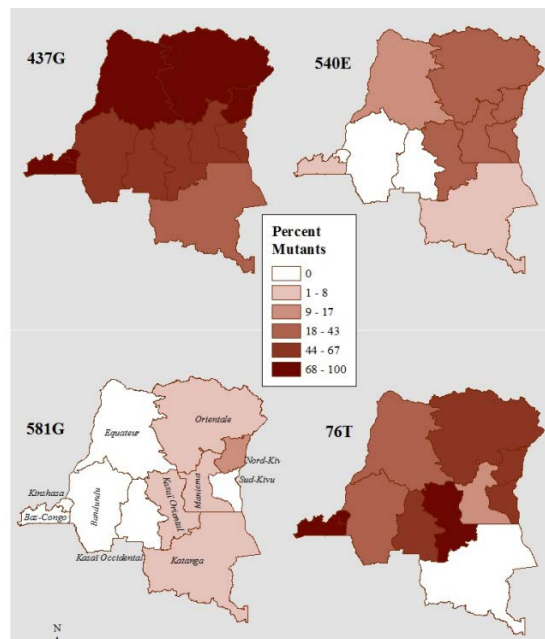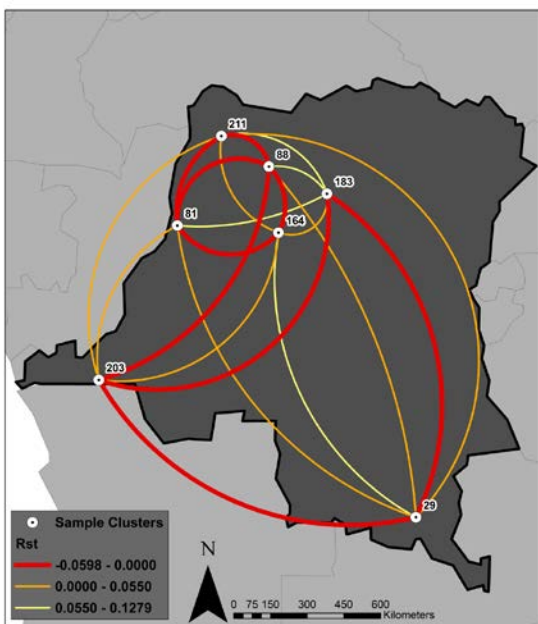GEOG 541 GIS in PUBLIC HEALTH Spring 2023
Instructor: Michael Emch
Where: 322 Carolina Hall
When: 3:35-6:35PM Mondays

GEOG 541 is an advanced course covering the theory and application of geographic information systems (GIS) for public health. The course includes an overview of the principles of GIS in public health and practical experience in its use. The practical component involves the use of desktop GIS software packages including ArcGIS and other spatial analysis software such as GeoDa, SaTScan, and QGIS. Both the theoretical and practical components of the course are important. Without a theoretical understanding of GIS methods you will make bad geographic modeling decisions and when necessary you will not be able to migrate to a new or different GIS software package. Without a practical understanding of GIS software your theoretical knowledge cannot be put to use. We will have an active learning environment, which means that students should be ready to participate and contribute to the class. Students must also complete a final project in which they investigate a public health GIS application in depth.

Map of drug resistance mutations in the Congo

Pairwise genetic distances over space in the Congo