



GRELL

# Linking a patient's address to his IRIS: Experience of General cancer Gironde

S. Maurisset<sup>1</sup>, A. Galvin<sup>2</sup>, G. Coureau<sup>1,2,3</sup><sup>1</sup> Gironde General Cancer Registry, Bordeaux<sup>2</sup> Univ. Bordeaux, Inserm, Bordeaux Population Health Research Center, Epicene team, UMR 1219, F-33000 Bordeaux, France<sup>3</sup> Department of Public Health, Bordeaux University Hospital, F-33000 Bordeaux, France

sylvain.maurisset@u-bordeaux.fr

## INTRODUCTION

- In France, cancer registries are allowed to collect personal data such as patients' addresses.
- The IRIS is a geographical division of the French population, usually between 1,800 and 5,000 inhabitants, including on the standard of living of their occupants.

## OBJECTIVE

- To link a patient's address to his IRIS and access information about the patient's standard of living and his EDI score (European Deprivation Index) with an open source software.

## RESULTS

- Using this process, it is possible to associate all the addresses of a department with the corresponding IRIS code, or a set of patient addresses.
- For the Gironde French department, only 47 addresses out of more than 750,000 could not be associated with the corresponding IRIS. Thus, more than 99.99% of the addresses could be linked to their IRIS code.

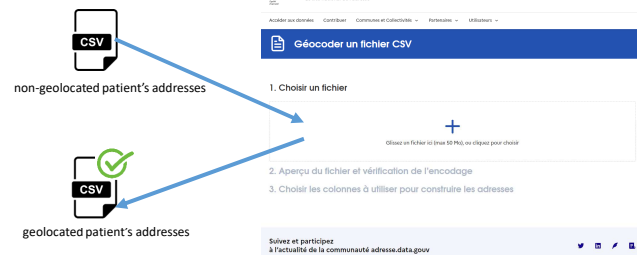
## CONCLUSION

- To study populations, statistical data linked to IRIS are highly relevant. In France, the National Geographic Institute will soon propose this relationship between addresses on the data.gouv.fr website.
- In the meantime, with the present method, everyone can simply link an address to its IRIS code.

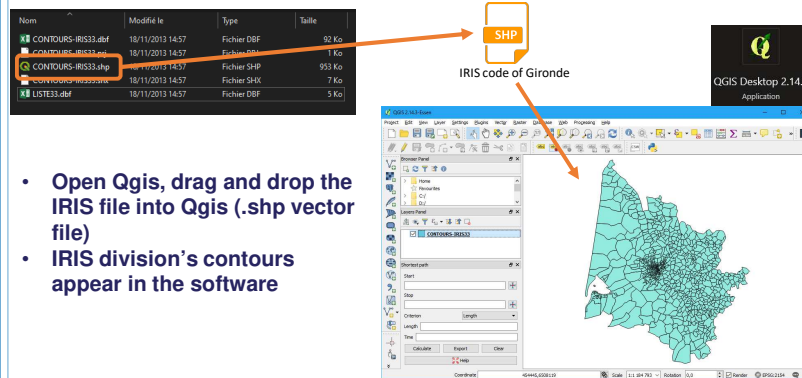
## METHODS

### 1 – GEOLOCATED ADRESSES

- Patient's addresses need to be geolocate with native software or website like data.gouv.fr. All the addresses of a department may also be used.



### 2 – LOAD IRIS MAP IN QGIS



- Open Qgis, drag and drop the IRIS file into Qgis (.shp vector file)
- IRIS division's contours appear in the software

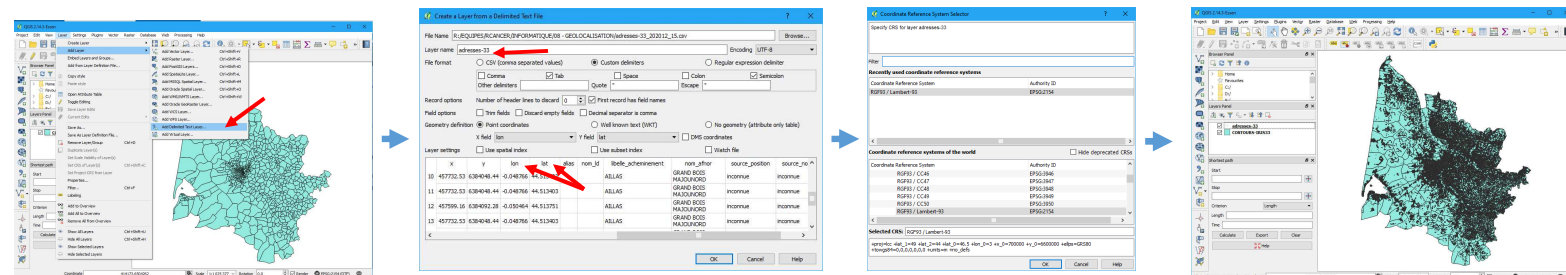
### 3 – LOAD ADDRESSES IN QGIS

- You need to load geolocated patient's addresses.
- Layer > Add Layer > Add Delimited Text Layer...

- Choose a name for your layer, here we choose "addresses-33"
- Inform geometry definition, here we use the two data fields : [lon] and [lat]

- Inform the reference system of the world, for France, you need to select « Lambert-93 »

- Addresses are represented by black dots, they appear on the map..

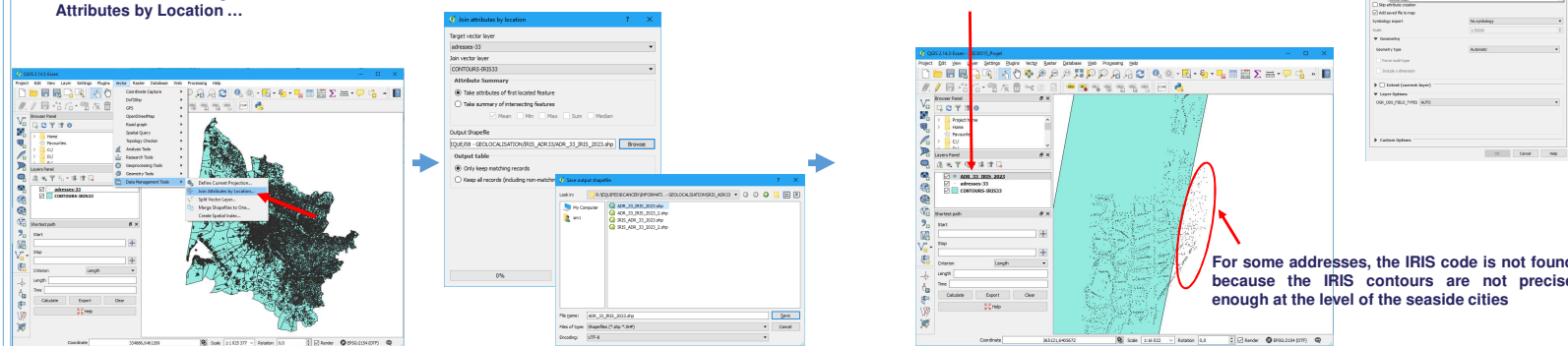


### 4 – CREATE DATA WITH IRIS AND ADDRESSES

- We will now merge the two layers
- Vector > Data Management Tools > Join Attributes by Location ...

- Target vector layer is the addresses layer
- You need to give a name for the new layer, in this example, the name is "ADR\_33\_IRIS\_2023"

- The new layer appears in the "Layers Panel"
- You can export the address data with IRIS by saving the new layer in DBF or CSV format



For some addresses, the IRIS code is not found because the IRIS contours are not precise enough at the level of the seaside cities