Geocoding

What is Geocoding? Geocoding is assigning latitude and longitude coordinates to an address for mapping and analysis.

The Geocoding Process and how it's done.

I. Birth Defects data

Information collected on birth defects with location recorded as birth mothers home address.

Patient ID	Street	City	State	Zip
1	101 S. Elm St.	Anytown	TX	77777
2	100 N. Main St.	Anytown	TX	77777
3	205 E. 1st Ave.	Anytown	TX	77777
1001	15 W. Bay Rd.	Anytown	TX	77777

Cancer Patients by Home Address*

II. Formating data for Geocoding

Address data must be in a standard format in order to be Geocoded.

Important Address Components

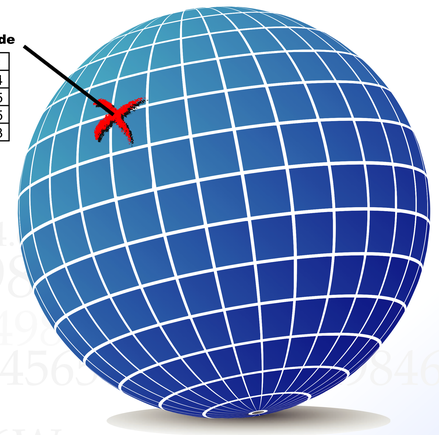
101	S.	Elm	St.	Anytown	TX	77777
Number	Direction Prefix	Street	Type	City	State	Zip Code

III. Geocode Data

Latitude and Longitude

Patient ID	Street	City	State	Zip	Latitude	Longitude
1	101 S. Elm St.	Anytown	TX	77777	30.197324	-97.788684
2	100 N. Main St.	Anytown	TX	77777	30.184429	-97.763065
3	205 E. 1st Ave.	Anytown	TX	77777	30.286475	-97.767245
1001	15 W. Bay Rd.	Anytown	TX	77777	30.346329	-97.691583

Special Geocoding software matches addresses to database information and assigns Latitude and Longitude coordinates.



IV. Accuracy of Results

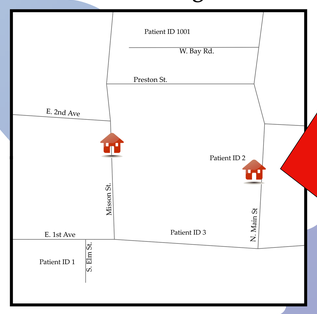
Generally, Geocoding is accurate to street level. However, there are situations when the accuarcy is only to the zip code level or sometimes not assigned at all!

What affects Accuracy?

- -Incomplete Address
- -Misspellings
- -Missing Address Components (ie. Direction Prefix, Street Type, Zip)
- -Post Office Box

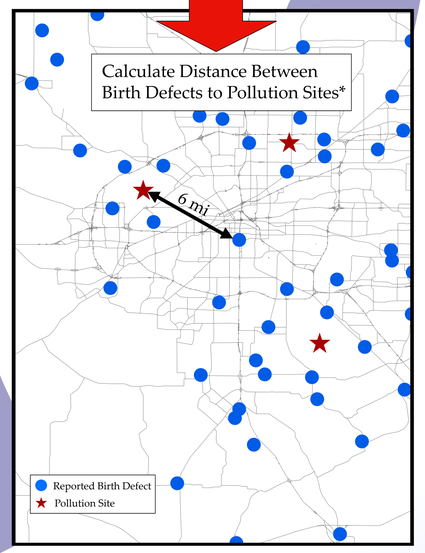
V. Geocoded Data

Create points from **Latitude and Longitude**

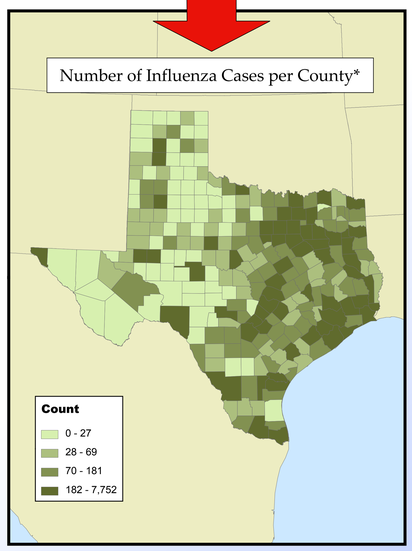


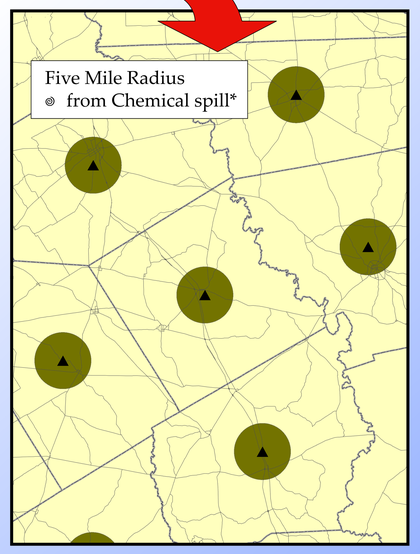
What Can You Do With These Results?

Mapping and Analysis



*Fictitious Data Used in Examples





Poster Presentation Created by the Center for Health Statistics GIS, for more information on Geocoding or GIS services call 512-458-7111 ext 6762 or email GIS@dshs.state.tx.us