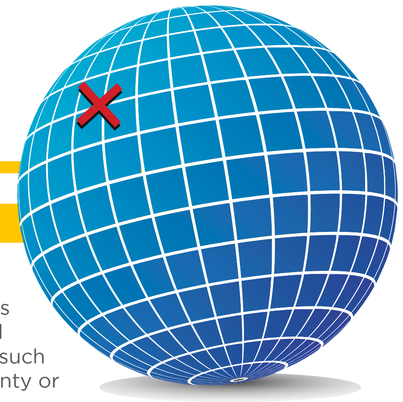
GEOCODING

dshs.texas.gov/gis

Geocoding is the process of converting descriptive location information (such as a text address line) into geographic positioning data (such as latitude and longitude coordinates) that can be mapped and placed on the earth. These coordinates can also be assigned to other geographies to provide more information on the location, such as which county the point falls within.



THE GEOCODING PROCESS

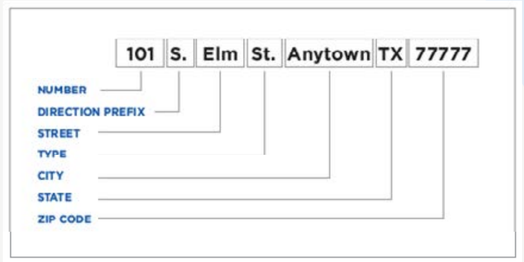
1 Get the most out of your data

Your data contains address information that can be used to assign other types of spatial information to it.

PATIENT ID	STREET	CITY	STATE	ZIP
1	101 S Elm St	Anytown	TX	77777
2	100 N Main St	Anytown	TX	78660
3	205 E 1st ave	Anytown	TX	78253
4	15 W Bay Rd	Anytown	TX	78704

2 Formatting for geocoding

When the address components are formatted properly the address information can now be geocoded. The software reads different components of an address to find the best match.



3 Geocoding

Specialized geocoding software matches addresses to an address database and assigns spatial information such as latitude & longitude, county or census tracts.

UNIQUE ID	STREET	CITY	STATE	ZIP	LAT	LON	COUNTY	PHR
1	101 S Elm St	Anytown	TX	77777	30.197324	-97.788684	Travis	Region 7
2	100 N Main St	Anytown	TX	78660	30.184429	-97.763065	Taylor	Region 2
3	205 E 1st ave	Anytown	TX	78253	30.286475	-97.767245	Bexar	Region 7
4	15 W Bay Rd	Anytown	TX	78704	30.346329	-97.691583	Potter	Region 1

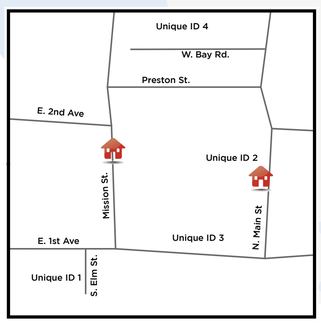
4 Accuracy of Results

If the address is recognized and has a match in the database, spatial information is assigned to the record. Different levels of accuracy are provided. Geocoding results can be accurate to the street level. However there are situations when the accuracy is only to the zip code level or sometimes not assigned at all.

What affects accuracy?

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

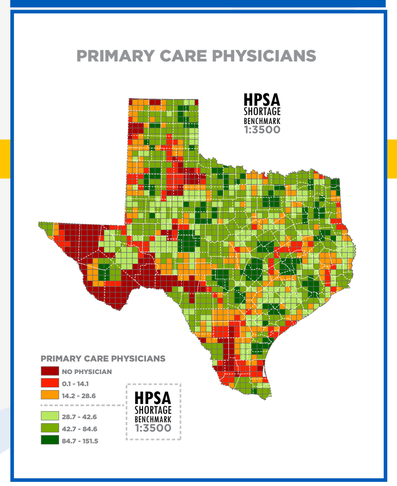
5 Geocoded Data



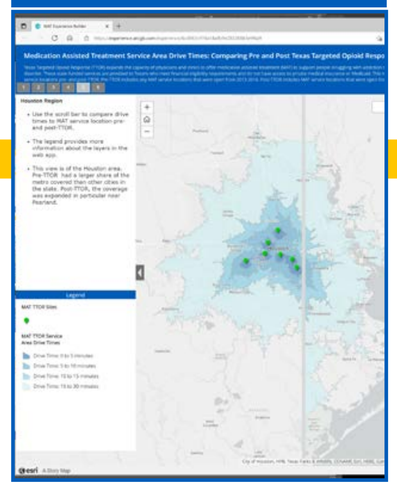
Generally, geocoding is accurate to the street level. However, there are situations when the accuracy of a location is only to the zip code level. Incomplete or inaccurate address information may not match an address and spatial information may not be assigned.

With the geocoded data you have the ability to explore it visually, spatially and statistically.

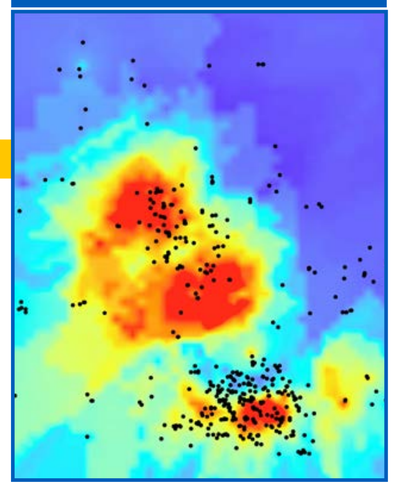
MAPPING



WEB APPLICATIONS



SPATIAL ANALYSIS



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