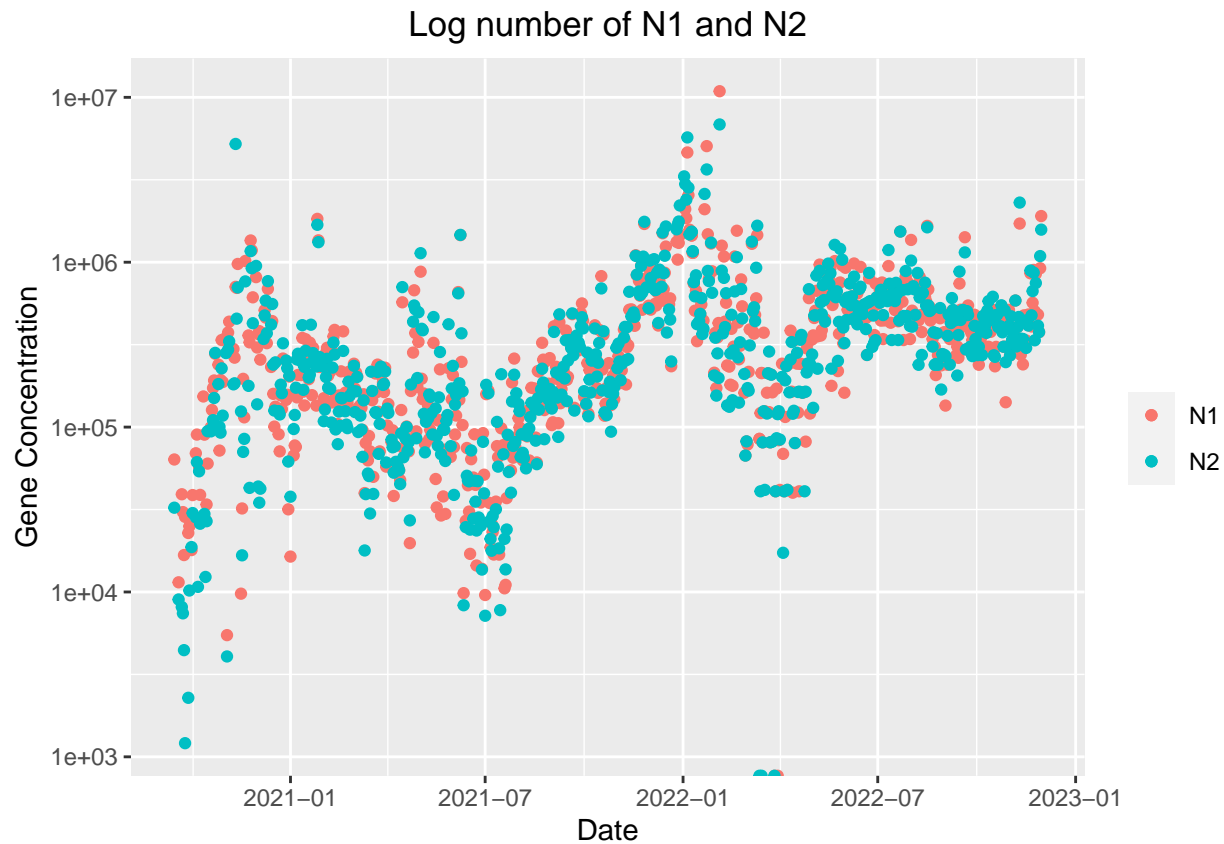# Longitudinal Waste data

Marlin

Longitudinal data source

This vignette covers the wastewater data collected by the Wisconsin State Lab of Hygiene. This wastewater data covers 118 weeks of 1-5 measurements a week from 82 locations. This has 63 columns where 5 are categorical variables, 9 are measurement columns and the remaining are extra info about the measurements.

The data is broken down by site and data. Site is where it was collected from. The primary column's are N1 and N2 which are two different genes of Covid-19.

Below is the first 6 rows of the dataset.

regions	county	site	date	pop
Southeastern	Port Washington	Port Washington	2021-01-18	12000
Southeastern	Port Washington	Port Washington	2021-01-25	12000
Southeastern	Racine	Racine	2021-01-24	139000
Northern	Washburn	Washburn	2021-01-25	2200

regions	county	site	date	pop
Northeastern	Peshtigo	Peshtigo	2021-01-25	4000
Southeastern	South Milwaukee	South Milwaukee	2021-01-24	21156

N1	N2	PMMoV	hf183	flow	tss	ph
8865.376	6652.533	18829610	NA	1.000	NA	NA
11827.504	7268.768	10190701	NA	1.000	NA	NA
8333.173	6484.469	6165848	NA	15.890	68	7.16
15421.000	30958.000	14401613	NA	0.149	NA	7.70
23272.000	35748.000	4397675	NA	0.444	NA	7.60
14383.477	8851.371	7323669	NA	2.588	NA	NA

conductivity	temperature	sample_id	pcr_type	n1_sars_cov2_lod
2930	NA	802	droplet digital PCR	FALSE
2360	NA	827	droplet digital PCR	FALSE
1244	12.3	819	droplet digital PCR	FALSE
880	10.8	544867001	qPCR	TRUE
887	11.7	544887001	qPCR	TRUE
1172	NA	813	droplet digital PCR	FALSE

n2_sars_cov2_lod	bod	do	lab_submitter	n1_lod	n1_loq	n2_lod
FALSE	NA	NA	UWM	3319.264	11078.219	3319.264
FALSE	NA	NA	UWM	3102.181	10342.939	3102.181
FALSE	101	NA	UWM	2773.056	9257.525	2773.056
TRUE	NA	NA	SLH	40000.000	130000.000	66000.000
TRUE	NA	3.8	SLH	40000.000	130000.000	66000.000
FALSE	NA	NA	UWM	3319.264	11064.213	3319.264

n2_loq	bcov_rec_rate	sample_type	wwtp_comments	quant_stan_ref
11078.219	NA	NA	NA	NA
10342.939	NA	NA	NA	NA
9257.525	NA	NA	NA	NA
140000.000	NA	NA	NA	NA
140000.000	NA	NA	NA	NA
11064.213	NA	NA	NA	NA

n2_num_ntc_amplify	avg_sars_cov2_conc	inhibition_detect	inhibition_adjust
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA

analytical_comments	equiv_sewage_amt
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

This data is our most used data that is used in multiple analyses. A couple of examples are below.

WPHA Poster

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