BLACK MATERNAL
HEALTH WEEK 2024
APRIL 11-17, 2024
#BMHW24

President Biden has established the week of April 11 through 17 as Black Maternal Health Week

Interesting facts

- A Black mother with a college education is at 60 percent greater risk for a maternal death than a white / Hispanic/ Asian woman with less than a high school education.

- In 2021, the maternal mortality rate for Black women was 69.9 deaths per 100,000 live births. With White women mortality being 26.6.

- 60% of pregnancy-related deaths are preventable.

- For BIPOC causes of death include cardiovascular conditions in addition to cardiomyopathy, pre-eclampsia, and eclampsia (hypertensive disorders).

- The Mother's Autonomy in Decision Making (MADM) scale is a patient-led test that evaluates the experience of maternity care.

- Women of color who have BIPOC doctors and/or doulas/midwives have better birthing outcomes

- President Biden has established the week of April 11 through 17 as Black Maternal Health Week

Predictability of Medical Conditions from Social Media Posts

A RESEARCH STUDY OVERVIEW

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Key points

▶ **Purpose of study:** To explore the predictability of medical conditions from social media posts.

▶ **Background:** Leveraging social media for insights into health trends and risks.

▶ **Participants:** 999 individuals with social media and EMR data.

▶ **Analysis:** Natural Language Processing and Machine Learning to analyze Facebook posts.
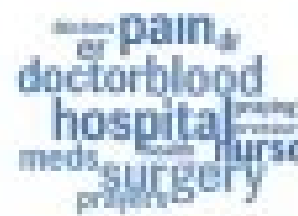
Findings

- **Specific Conditions:** Effective prediction of diabetes, anxiety, & depression.

- **Linguistic Markers:** Identification of key words and phrases linked to specific conditions.

- **Key Findings:** Social media content can predict 18 out of 21 medical conditions studied.

- **Enhancement with Demographics**: Adding demographic data improves prediction accuracy.

Implications

- **Impact:** Demonstrates the potential of social media data in health research.

- **Integration:** Encourages further integration of digital data sources in medical studies.

- **Contribution to Personalized Medicine:** Potential for tailored health interventions.

- **Social Media Data Use: U**se social media data to determine disease onset or exacerbation and to conduct social media-based health interventions.
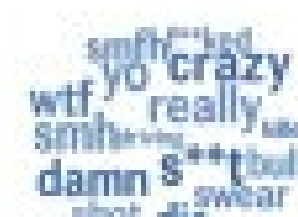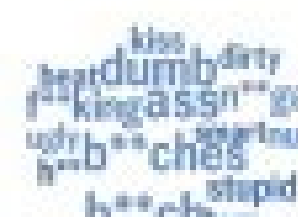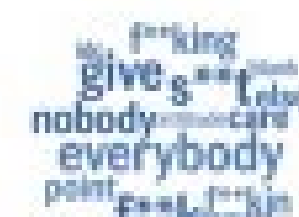
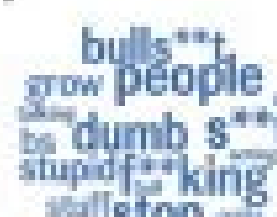B) Markers (Most Predictive Topics) per Diagnosis

Diabetes
N = 39

Sexually Transmitted Disease
N = 57
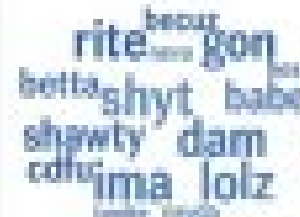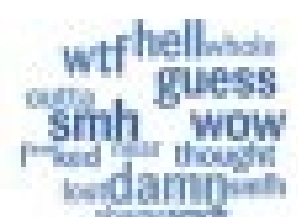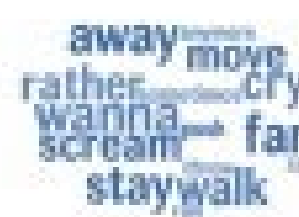
Drug Abuse
N = 64

Findings

- For example, **alcohol abuse** was marked by a topic mentioning drink, drunk, bottle.

- Topics expressing hostility (e.g. people, dumb, bulls**t, b**ches) were the predominant marker of **drug abuse** and also marked **psychoses**.

- Topics most associated with **depression** suggested somatization (e.g. stomach, head, hurt) and emotional distress (e.g. pain, crying, tears).

- Other markers may suggest socio-environmental variables associated with disease risk; for example, **diabetes** was predicted by religious language (e.g. god, family, pray) even when controlling for demographic variables

This does not mean that everyone mentioning these topics has the condition, but just that those mentioning it are more likely to have it.

For example, the top 25% of patients mentioning the (god, family, pray) topic were 15 times more likely to have been diagnosed with **diabetes.**

Alcohol Abuse
N = 34
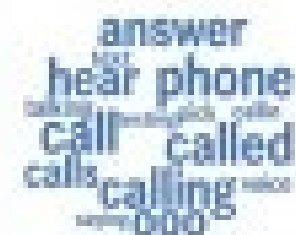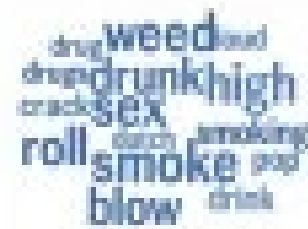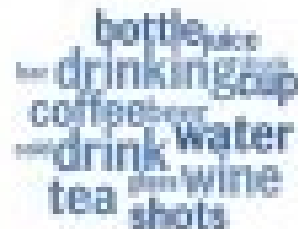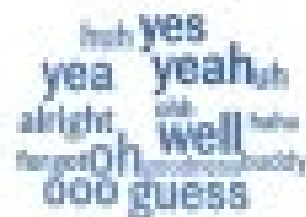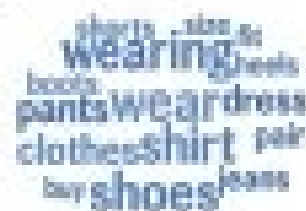
Depression
N = 149

Hypertension
N = 132

ALCOHOL and SOCIAL MEDIA

HIGH RISK DRINKERS
(*r* range: 0.064-0.177)

LOW RISK DRINKERS
(*r* range: 0.064-0.134)

HIGH RISK DRINKERS
(*r* range: 0.064-0.177)

LOW RISK DRINKERS
(*r* range: 0.064-0.134)

correlation strength

relative frequency

	High Risk Drinking		Low Risk Drinking	
	LIWC Categories	LDA Topics	LIWC Categories	LDA Topics
	Informal lol, :), u, well, awesome	ale pint cold beer bbq drinkin beers ginger pub pong drink drinking bottles cans root	***Religion*** god, hell, pray, amen, christ	praying king answers god stage post bless prayers daughter prayer family answered pray fb chain
	Swear hell, ass, fuck, sucks, crap	shits damn dude fucking fuckin shitty ass bitches fucked shit bitch fuck bullshit fucks pissed	***They*** they, them, themselves, they'll, they've	prove challenge died repost savior statement thinking gospel jesus lift let's stand ashamed christ cross
	Sexual fuck, gay, sex, sexy, dick	tryin aint feelin rollin nothin livin somethin lookin cuz gettin runnin makin ain't thinkin walkin	***Social**** you, your, we, love, they	giving thanking god * blessed everyday blessing bless grateful gift blessings wonderful gifts thankful god's lord
	Anger hate, hell, fuck, stupid, war	drunken rockin messy partying club champagne tonight party gonna booze rocking town poppin bottles homies	***Conjunction**** and, so, but, if, or	amen dear paste * hangover request won god pray cure cancer struck copy put miracle touched
	Netspeak lol, :), u, gonna, fb	hott flick guy dudes hood hot chick dicks sexy cool chicks lmao coolest dude asian	***Affiliation*** we, love, our, friends, family	heaven wall peers simple christ jesus test challenged front show ashamed bible deny afraid father
	r range: .147-.116 *p* value < .0001	*r* range: .195-.124 *p* value < .0001	*r* range: .113-.092 *p* value < .0001	*r* range: .134-.108 *p* value < .0001
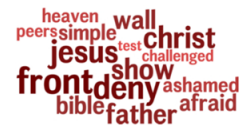
Correlation Magnitude

High-risk alcohol use predicted by words related to alcohol, partying, and anger.

Low-risk alcohol use associated with social, affiliative, and faith-based words.