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HIV Testing Among High-Risk Individuals in the US: 2022 BRFSS

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Abstract

Objective

Human Immunodeficiency Virus (HIV) infection is a global epidemic, and public health efforts are moderately effective to date. This cross-sectional study aimed to determine association between high-risk behavior (intravenous drug use, risky sexual behaviors) and odds of testing for HIV utilizing 2022 Behavioral Risk Factor Surveillance System (N= 445,132).

Methods

Using SAS 3.82, the age-stratified logistic regression model for exposure (high-risk behavior) and outcome (HIV testing) included covariates gender, race, income, mental health and checkup frequency.

Results

High-risk individuals had greater odds of testing compared to low-risk individuals (crude POR 2.98 [2.81 – 3.17]), with greatest odds observed among ages 18-24 (POR 3.2 [2.76 – 3.7]) and >=55 (POR 3.21 [2.68 – 3.85]). Persons aged 18-24 were the majority reporting high-risk behavior (14.5%). Women had greater testing odds (crude OR 1.12 [1.09 – 1.15]) and among non-Whites, other/multiracial non-Hispanics had lower testing odds (crude OR 1.12 [1.06 – 1.18]).

Conclusions

This study confirmed the association between high-risk behavior and HIV testing, highlighted opportunity for prevention among persons under 25 and provided direction for future research to target public health programs for disparate populations.

Introduction

Human Immunodeficiency Virus (HIV) infection is a preventable, communicable chronic progressive disease and a global public health epidemic.[1] After exposure, the virus has a long latency with persistent replication in the host, causing chronic infection for which there is no cure. HIV attacks the immune system, which increases the host's susceptibility to opportunistic infections.[2] Left untreated, HIV can progress to advanced disease known as Acquired Immunodeficiency Syndrome (AIDS).[1] HIV is transmitted in humans via direct exposure to blood or lymphatic tissue, commonly through sexual contact via broken skin and mucous membranes or intravenous exposure to blood-containing fluids.[3] High-risk behaviors for contracting HIV include intravenous drug use, having multiple sex partners, having unprotected sex, comorbidity with other sexually transmitted diseases and solicitation for sex.[4] The risk of person-to-person transmission can be significantly reduced or eliminated by achieving suppression of viral load.[1]

Asymptomatic infection is common, therefore, many people living with HIV are unaware. Centers for Disease Prevention and Control (CDC) recommends all persons between ages 13 and 64 receive screening for HIV at some point in their life. Flu-like symptoms can develop within a month after infection, but symptoms do not always materialize in every case. In light of the long latency and progressive nature of disease, early detection and treatment with antiretroviral therapy (ART) are paramount in delaying morbidity and mitigating the risk of transmission to others.[1] In 2021, 80% of incident cases in the US received at least some medical care, and 66% achieved viral suppression, which prevents person-to-person transmission.[4]

Diagnosis of HIV typically occurs through antibody detection. RNA can be detected in the serum as early as 10 to 20 days after exposure.[5] Late diagnosis, defined as CD4 count (a type of lymphocyte used to indicate immune function in HIV) <200 cells/μL, is associated with increased morbidity and mortality, as well as attenuated response to ART and increased healthcare spending.[5,6]

High-risk individuals are public health targets for risk awareness and surveillance testing to ensure prompt diagnosis and early ART treatment. Prevention is a key public health strategy as it relates to HIV transmission. Individuals at high risk for HIV can reduce their risk of infection by up to 99% by receiving pre-exposure prophylaxis (PrEP).[1] Other prevention strategies include programs that support safe sex and injection practices to reduce the risk of exposure.[1] Unfortunately, from 2019-2023, only about 30% of Americans aged 16 and older who had indications for PrEP were actually prescribed PrEP.[6]

In 2023, there were 1.2 million Americans age 13 and older living with HIV; however, approximately 13% of those were undiagnosed. In the US, there are approximately 32,000 incident diagnoses annually among persons aged 13 and older, with the highest incidence rate observed in the Southern US.[1] In 2021, the HIV-attributable mortality rate was 1.5 per 100,000 population in the US.[7]

In 1996, ART became readily available for treating infection and preventing HIV transmission[8]; yet, in 2024, disparities still exist among certain populations, challenging the public health goal of ending the HIV epidemic in the US. Existing research has identified social determinants of HIV risk in the US, including income, social inequality and economic disadvantage. Disparities seen among certain demographic groups, such as men who have sex with men (MSM) and African Americans, can be partially explained by these social determinants.[9]

Early diagnosis and treatment are known to produce ideal outcomes, so in a world where both are readily available, why does HIV remain a major public health concern in the US? Stigma surrounding high-risk behavior persists despite attempts by society and the healthcare community to normalize and desensitize them. Response and reporting biases contribute to inadequate identification of high-risk individuals, and therefore, testing and treatment.[10] The aim of this study is to determine if engaging in high-risk behaviors is associated with greater likelihood of testing for HIV. It is hypothesized that age may also have an effect on the odds of high-risk behavior and testing.

Methods

Study Design

BRFSS is a telephone-based health behavior survey conducted annually across all 50 US states, with an average of 400,000 participants each year. This standard questionnaire collects prevalence health data that are used in conjunction with morbidity and mortality data to inform public health decision-making. For this cross-sectional study of HIV testing and high-risk behavior, the 2022 BRFSS dataset served as the study population.

Ethical Approval

This study used publicly available de-identified public health surveillance data and was therefore not subject to IRB oversight.

Sample

The primary sample of telephone numbers is provided to each state by CDC. States can elect to identify their final sample by county, public health jurisdiction or other geographical delineation designed to provide representation from all populations within the state. BRFSS has two primary samples, landline and cellular. Landline sampling uses disproportionate stratified sampling, then the interviewer chooses a random sample of all adults living in the household; whereas cellular sampling is a simple random sample producing a single adult participant. BRFSS uses a twofold weighting method to reduce bias, design weighting and ranking.

The raw sample size in 2022 was 445,132. Analysis utilized case-wise exclusion for missing observations. The primary outcome (HIV testing) excluded 14.9% of responses that were missing. Primary exposure (high-risk behaviors) excluded 11.4% due to missing observations. After recoding, all other covariates excluded 3% or less due to missing observations except for income, which excluded 21.6%.

Setting and Instruments

Telephone interviews were conducted remotely via phone across the US with no in-person visit requirements. BRFSS data collection uses minimal equipment such as telephones and computers. Because no in-person measurements are made, no additional equipment is required.

Variables

In addition to the demographic variables (age, gender, race and income), other pertinent survey questions were included in the analysis as covariates: engagement in high risk behaviors, days experiencing poor mental health, diagnosis of depressive disorder, ability to afford medical care and length of time since last checkup. Based on literature review, these variables could be confounders or modifiers. Mental health, socioeconomic status and access to healthcare are described as confounders in previous studies.[11-16] Reference categories were identified based on literature review or majority.

Data Collection

BRFSS data were collected by each state, following a monthly schedule for completion. Most contacts were made during the evening or weekend with a smaller proportion of weekday calls. Each state determined by whom the data collection was performed, which can be public health department staff or outsourced. Regardless of the party collecting data, states must ensure confidentiality and data integrity were maintained.

Data Analysis

All statistical analyses were conducted using SAS Studio 3.82 (SAS Institute, Cary, NC). Variables were selected based on existing knowledge and literature review. The 2022 BRFSS sample size was 445,132 before missing, refused or don't know responses were removed. Several variables were recoded to eliminate missing responses and modify strata to align with the goals of the study.

Descriptive statistics were obtained as seen in Table 1. Logistic regression with backward model selection was used to assess relationships between exposure and dichotomous outcome, including all covariates. All covariates, including the exposure (high risk behavior within the last year) and outcome (having ever been tested for HIV), were categorical. Prevalence crude and adjusted odds ratios were obtained with the associated confidence interval and p-value with significance <0.05 using binary and multivariate logistic regression analysis (Tables 2 and 3).

Results

Response

2022 BRFSS achieved a 45% response rate, which is desirable and comparable to other similar surveys.

Sample Characteristics

As described in Table 1, among the study population, 6.1% reported engaging in high-risk behaviors within the last year. There were slightly more females (51.3%) compared to males. The vast majority were age 35 or older (71%) and more than half of participants were White. Income distribution was skewed toward higher income, with 28.7% of participants reporting income of $100,000 or more. The majority (87.1%) had a checkup within the last two years. Most of the participants (79.4%) reported no diagnosis of depression and 57.5% reported zero days of poor mental health in the last month, while 14.9% reported 15 or more days of poor mental health.

Bivariate logistic regression analysis of all covariates

Per Table 2, The 6.1% of participants who reported high-risk behavior had nearly three times the odds (POR 2.98, CI [2.81 to 3.17]) of being tested for HIV compared to participants who did not report high-risk behavior. 37.2% who reported engaging in high-risk behavior had never been tested.

Participants aged 25-34 and 35-54 had significantly higher odds of being tested (OR 2.33, CI [2.23 to 2.43]) and (OR 2.9, CI [2.81 to 3]), respectively), while participants aged 18-24 had lower odds (OR 0.91, CI [0.86 to 0.96]) compared to 55+ participants. Females had 1.12 times the odds (CI [1.09 to 1.15]) of being tested compared to males. All race groups had greater odds of testing compared to Whites. Odds of being tested were greatest among those reporting income <$25,000 compared to those reporting incomes of $100,000 or more (OR 1.11, CI [1.06 to 1.16]). Mental health had a dose-dependent relationship with testing. As the ordinal strata progressed toward declining mental health, the odds of being tested for HIV also increased compared to persons reporting no concerns with mental health. Similarly, participants with diagnosed depression had 1.84 times the odds of being tested compared to those without a depression diagnosis (CI [1.78 to 1.90]). All covariates were significant at $p<0.05$.

Multivariate logistic regression analysis

Described in Table 3, the initial full model produced significant relationships for all covariates based on type 3 analysis of effects; all p-values were <.0001. Multicollinearity was identified in the variables “diagnosis of depressive disorder” and “unable to afford medical care.” These variables were excluded from the model as they are already represented by other variables “income” and “poor mental health days.” Because existing research suggests that age may modify the relationship between high-risk behavior and HIV testing,[11] and the logistic regression for the interaction term risk*age produced $p=0.012$, the final multivariate analysis was stratified by age to account for this interaction. Again, all covariates remained significant at $p<0.05$. After stratification, among individuals endorsing high-risk behavior, odds of testing were greatest in the 18-24 age group (POR 3.20, CI [2.76 to 3.70]) and the 55+ age group (POR 3.21, CI [2.68 to 3.85]) in comparison to the crude POR 2.98, CI [2.81 to 3.17].

Females are generally more likely to be tested for HIV compared to males (except within the 55+ age group), despite females representing the lesser proportion of persons reporting high-risk behavior (4.9% of females compared to 7.5% of males).

Generally, Blacks (crude POR 2.79 [CI 2.65 to 2.91]) and Hispanics (crude POR 1.55 [CI 1.48 to 1.62]) have greater odds of testing compared to Whites. Other/multiracial non-Hispanics have lesser odds of testing than Blacks and Hispanics (crude POR 1.12 [CI 1.06 to 1.18]) despite reporting similar levels of participation in high-risk behaviors. Across the age strata, these associations remain consistent with the greatest odds of testing seen among Blacks and Hispanics. Only in the 55+ age group do other/multiracial non-Hispanics have greater odds of testing compared to Whites, although not all age-stratified POR values were significant for this racial group.

Income appears to have an insignificant association with odds of testing; however, among the age 18-24 group, all levels of income <$100,000 were positively associated with being tested for HIV. The income variable analysis also excluded the 21.6% of observations with missing response.

Mental health's association with testing is dose-respondent, particularly in the 35-54 and 55+ age groups. As the number of poor mental health days increase, the odds of HIV testing also increase. The association with mental health was insignificant in the 1-14 days of poor mental health strata among the 18-24 age group, but those experiencing 15-30 days of poor mental health have 1.3 times the odds of testing compared to 18 to 24-year-olds reporting zero days of poor mental health [CI 1.09 to 1.55].

Regular medical care (having had a checkup within the last two years) is associated with significantly increased odds of being tested across the age strata.

In the multivariate analysis, R-square statistics demonstrate poor fit of the model, which will be examined in the discussion.

Discussion

The analysis confirms a positive association between high-risk behavior and testing for HIV across all age strata, and the odds are greatest among the youngest (18-24) and oldest (55+) age groups, suggesting that age modifies both the odds of high-risk behavior and testing.[11] Participation in (or reporting of) high-risk behavior declines with age, indicating that a public health focus on risk mitigation in persons under 25 may be an important prevention strategy.

As age increases, those experiencing 15-30 days per month of poor mental health have increasing odds of testing for HIV. The association with mental health among 18 to 24-year-olds is insignificant until it becomes a greater burden at 15-30 days of poor mental health. This may indicate opportunity for intervention among younger persons struggling with mental health at all levels.

Previous studies have concluded that women are more likely to be tested due to increased likelihood of being insured, increased overall utilization of healthcare, and screening standards for pre- and post-natal care.[17] It is hypothesized this type of screening is not a standard of care for a male patient, and further studies could be beneficial to assess this disparity.

There also appears to be an opportunity to increase testing acceptance among other/multiracial non-Hispanics. Despite engaging in high-risk behaviors at similar rates to Blacks and Hispanics, there is a disparity in testing of other/multiracial non-Hispanics.

Strengths of this study include large sample size, adequate geographic and demographic representation of the target population, and possibly, reduced reporting bias because the method of obtaining sensitive information was via phone rather than face-to-face.[10] However, this hypothesis cannot be confirmed in this study because there is no other method for comparison.

Limitations included several areas of bias related to self-reporting, recall, non-response and limitation of the sample to free-living adults with a landline or cell phone. Individuals who may engage in

high-risk behavior, such as persons experiencing homelessness and drug abusers, may not have telephone access. Another significant limitation was the lack of availability of additional covariates, such as type of geographical location (urban vs. rural), history of high-risk behaviors spanning beyond the last year, attitude and perceived stigma surrounding HIV, substance abuse history overall and abuse prior to engaging in sexual activity, and social support.[12,14,15,18] These limitations likely explain the poor model fit described by the R-square statistic. Risky behavior is associated with increased likelihood of testing, but the scope of this study cannot explain why the 37.2% of participants who engaged in risky behavior had never been tested; this study simply highlights disparities in testing among certain populations. Classification of the primary exposure, high-risk behavior, is subject to significant bias. Despite the discreet method of obtaining information, the risk of bias related to reporting, recall and social desirability, remains high. Misclassification of high-risk behavior occurred by study design because, for example, persons who may have engaged in risky behavior two years ago were categorized as not engaging in high-risk behavior by definition. This misclassification reduced the sample size of the exposure group, and therefore, the power of the test.

This study highlights a few important areas for future research: why are men at high risk for HIV less likely to be tested? Why are other/multiracial non-Hispanics less likely to be tested despite engaging in risky behaviors at similar rates to other non-White racial groups? Are anonymous methods of reporting personal risk and seeking testing more likely to improve testing acceptance? Cohort or case-control studies could be beneficial in exploring these questions.

Epidemiology of HIV is complex, and while advancements in surveillance and treatment have been observed over the last few decades, disparities remain in certain pockets of the US population. The findings of this study confirmed the association between age, high-risk behavior and odds of being tested for HIV. These findings also highlighted opportunities for future studies to effectively and efficiently concentrate public health efforts to halt HIV transmission in the US.

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Table 1. Description of the Study Population: 2022 BRFSS (N=445,132)

Variable	N (Weighted %)
High-Risk Behaviors	
Yes	17,185 (6.1%)
No	377,324 (93.9%)
Age (years)	
18-24	26,943 (11.9%)
25-34	47,840 (17.1%)
35-54	126,158 (31.9%)
55+	244,191 (39.1%)
Gender	
Male	209,238 (48.7%)
Female	235,894 (51.3%)
Race	
White	320,421 (58.3%)
Black	35,446 (11.9%)
Other/multiracial non-Hispanic	32,291 (11.1%)
Hispanic	42,917 (18.8%)
Income	
<$25,000	56,015 (17.1%)
$25,000 - $49,999	89,125 (25.4%)
$50,000 - <$100,000	107,584 (28.8%)
$100,000+	96,361 (28.7%)
Poor mental health days	
None	265,229 (57.5%)
1 to 7	91,582 (21.9%)
8 to 14	21,905 (5.70%)
15 to 30	57,349 (14.9%)
Diagnosis of depressive disorder	
Yes	91,410 (20.6%)
No	35,0910 (79.4%)
Unable to afford medical care	
Yes	37,227 (11.1%)
No	40,6296 (88.9%)
Time since last checkup	
<2 years	392,863 (87.1%)
2 to <5 years	24,882 (6.90%)
More than 5 years	19,079 (5.20%)
Never	2,509 (0.80%)

N=frequency, %=weight-adjusted percent

Table 2. Self-Reported Testing for HIV, by Socioeconomic Status, Demographic, Mental Health and Access to Care: 2022 BRFSS

Variable	Tested for HIV N (weighted %)	Not tested for HIV N (weighted %)	Crude Prevalence OR (CI)
High-risk behavior			
Yes	10,607 (62.8%)	6,071 (37.2%)	2.98 (2.81 - 3.17)
No	117,051 (36.1%)	24,1750 (63.9%)	REF
Age (years)			
18-24	6,003 (25.2%)	17,225 (74.8%)	0.91 (0.86 - 0.96)
25-34	18,407 (46.2%)	22,480 (53.8%)	2.33 (2.23 - 2.43)
35-54	53,942 (51.8%)	52,548 (48.2%)	2.90 (2.81 - 3.00)
55+	50,734 (27.0%)	157,666 (73.0%)	REF
Gender			
Male	60,364 (36.5%)	118,502 (63.5%)	REF
Female	68,722 (39.2%)	131,417 (60.8%)	1.12 (1.09 - 1.15)
Race			
White	83,122 (32.7%)	192,064 (67.3%)	REF
Black	16,015 (57.5%)	13,325 (42.5%)	2.78 (2.65 - 2.91)
Other/multiracial non-Hispanic	9,689 (35.2%)	17,732 (64.8%)	1.12 (1.06 - 1.18)
Hispanic	16,410 (43.0%)	20,080 (57.0%)	1.55 (1.48 - 1.62)
Income			
<$25,000	19,978 (43.5%)	29,594 (56.5%)	1.11 (1.06 - 1.16)
$25,000 - $49,999	26,318 (38.4%)	52,842 (61.6%)	0.89 (0.86 - 0.93)
$50,000 - <$100,000	31,758 (37.9%)	64,784 (62.1%)	0.88 (0.84 - 0.91)
$100,000+	32,947 (41.0%)	53,383 (59.0%)	REF
Poor mental health days			
None	65,008 (33.4%)	159,648 (66.6%)	REF
1 to 7	30,565 (40.7%)	48,665 (59.3%)	1.37 (1.32 - 1.42)
8 to 14	7,962 (43.6%)	10,976 (56.4%)	1.54 (1.45 - 1.64)
15 to 30	23,154 (48.4%)	25,925 (51.6%)	1.87 (1.80 - 1.95)
Diagnosis of depressive disorder			
Yes	37,273 (49.5%)	42,277 (50.5%)	1.84 (1.78 - 1.90)
No	91,025 (34.7%)	206,338 (65.3%)	REF
Unable to afford medical care			
Yes	15,312 (48.6%)	16,087 (51.4%)	1.64 (1.57 - 1.72)
No	113,382 (36.5%)	233,068 (63.5%)	REF
Time since last checkup			
<2 years	114,536 (38.5%)	219,969 (61.5%)	1.72 (1.42 - 2.09)
2 to <5 years	7,596 (36.3%)	13,841 (63.7%)	1.57 (1.29 - 1.92)
More than 5 years	5,086 (32.6%)	11,406 (67.4%)	1.33 (1.09 - 1.63)
Never	553 (26.7%)	1,547 (73.3%)	REF

N=frequency, %=weight-adjusted percent, OR=prevalence odds ratio, CI= 95% confidence interval

Table 3. Crude and Age-Adjusted Prevalence Odds Ratios for HIV Testing, by High Risk Behavior,

Variable	Crude POR (CI)	18-24 Adjusted POR (CI)	25-34 Adjusted POR (CI)	35-54 Adjusted POR (CI)	55+ Adjusted POR (CI)
High-risk behavior					
Yes	2.98 (2.81 - 3.17)	3.20 (2.76 - 3.70)	2.64 (2.31 - 3.02)	2.73 (2.40 - 3.11)	3.21 (2.68 - 3.85)
No	REF	REF	REF	REF	REF
Gender					
Male	REF	REF	REF	REF	REF
Female	1.12 (1.09 - 1.15)	1.21 (1.06 - 1.37)	1.31 (1.20 - 1.42)	1.32 (1.25 - 1.40)	0.86 (0.81 - 0.91)
Race					
White	REF	REF	REF	REF	REF
Black	2.78 (2.65 - 2.91)	1.77 (1.46 - 2.15)	2.86 (2.47 - 3.31)	3.09 (2.80 - 3.39)	2.67 (2.46 - 2.90)
Other/multiracial non-Hispanic	1.12 (1.06 - 1.18)	0.93 (0.77 - 1.12)	0.87 (0.76 - 0.99)	0.92 (0.83 - 1.01)	1.48 (1.29 - 1.71)
Hispanic	1.55 (1.48 - 1.62)	1.29 (1.10 - 1.52)	1.26 (1.13 - 1.41)	1.29 (1.18 - 1.41)	1.73 (1.56 - 1.91)
Income					
<$25,000	1.11 (1.06 - 1.16)	1.39 (1.15 - 1.67)	0.97 (0.84 - 1.12)	1.21 (1.10 - 1.33)	0.94 (0.86 - 1.02)
$25,000 - $49,999	0.89 (0.86 - 0.93)	1.56 (1.31 - 1.86)	0.95 (0.85 - 1.06)	0.96 (0.88 - 1.04)	0.74 (0.69 - 0.80)
$50,000 - <$100,000	0.88 (0.84 - 0.91)	1.35 (1.13 - 1.61)	0.93 (0.84 - 1.03)	0.98 (0.92 - 1.05)	0.76 (0.71 - 0.82)
$100,000+	REF	REF	REF	REF	REF
Poor mental health days					
None	REF	REF	REF	REF	REF
1 to 7	1.37 (1.32 - 1.42)	0.94 (0.81 - 1.10)	1.12 (1.02 - 1.24)	1.25 (1.17 - 1.34)	1.48 (1.38 - 1.59)
8 to 14	1.54 (1.45 - 1.64)	0.97 (0.78 - 1.20)	1.07 (0.91 - 1.25)	1.51 (1.35 - 1.69)	1.78 (1.57 - 2.02)
15 to 30	1.87 (1.80 - 1.95)	1.30 (1.09 - 1.55)	1.48 (1.32 - 1.65)	1.72 (1.59 - 1.87)	2.02 (1.86 - 2.19)
Time since last checkup					
<2 years	1.72 (1.42 - 2.09)	2.65 (1.34 - 5.23)	2.29 (1.45 - 3.62)	1.77 (1.32 - 2.36)	2.26 (1.45 - 3.52)
2 to <5 years	1.57 (1.29 - 1.92)	1.90 (0.95 - 3.82)	1.43 (0.89 - 2.30)	1.47 (1.08 - 2.00)	2.34 (1.47 - 3.74)
More than 5 years	1.33 (1.09 - 1.63)	1.55 (0.74 - 3.25)	1.16 (0.73 - 1.87)	1.14 (0.84 - 1.56)	2.00 (1.24 - 3.21)
Never	REF	REF	REF	REF	REF

POR=prevalence odds ratio, CI= 95% confidence interval

Socioeconomic Status, Demographic, Mental Health and Access to Care: 2022 BRFSS

Appendix

Alissa Lorchick, BS, RD, CIC

Alissa is the Infection Prevention Manager for DaVita Kidney Care in Southern California, a position she has held since 2021. Prior to her work in infection control, she provided direct patient care as a Registered Dietitian and Clinical Manager, where she pivoted her healthcare career to purse a master's degree in public health. She is expected to earn her MPH in Epidemiology in May 2024 from the University of Nebraska Medical Center. She has a passion for patient safety and an interest in innovative strategies for improving infection prevention practices. She is a member of the Association for Professionals in Infection Control and Epidemiology and recently earned her Certification in Infection Control. When she's not fighting pathogens, Alissa enjoys going to concerts with her husband and cheering on their two children in their athletics.

ALISSA LORCHICK, BS, RD, CIC

9551 N 144th St, Waverly, NE 68462 · 402-309-5848

A L I S S A . L O R C H I C K @ G M A I L . C O M

OBJECTIVE

Experienced clinician with a passion for helping dialysis patients live their best lives. Currently pursuing a Master of Public Health in Epidemiology to enhance skills related to reducing morbidity and mortality in the dialysis population through effective infection control and management.

EXPERIENCE

May 2021 - current
Infection Prevention Manager, DaVita Kidney Care

- Educate teammates and leadership regarding infection prevention strategies.
- Perform surveillance and reporting of infections to national authorities.
- Participate on infection prevention team to initiate novel prevention strategies.
- Provide infection control guidance and recommendations to facility teams and physicians.

Oct 2015 – May 2021
Clinical Services Manager, DaVita Kidney Care

- Drove high quality, safe patient care by engaging and educating facility leadership and teams.

Sept 2010 – Oct 2015
Renal Dietitian, DaVita Kidney Care

- Completed nutrition assessment and education for ESRD population.
- Managed mineral bone and fluid outcomes and was actively engaged in the interdisciplinary team.

CERTIFICATIONS

- Certification in Infection Control, 2024 - current
- Registered Dietitian, 2008 - current

EDUCATION

Expected May 2024
Master of Public Health
Epidemiology
University of Nebraska Medical Center

May 2007
Bachelor of Science in Dietetics
University of Nebraska-Lincoln

KEY SKILLS

Infection control

Quality improvement

Health education

Innovation

AWARDS

Core value award for continuous improvement, 2016