

2018 Health Equity Report

Patient Care Through An Equity Lens

ORUSH



At **Rush**, we believe that addressing **health equity** means **removing obstacles** to good health so that everyone can attain their full health potential.

2018 Health Equity Report

Patient Care Through An Equity Lens

| What is health equity? And what is Rush doing to achieve it? | 2 |
|---|----|
| Letter from David Ansell, MD, MPH | 3 |
| Letter from Brittney Lange-Maia, PhD, MPH | 4 |
| Who are Rush patients and where are they from? | 6 |
| Who comes to the Rush University Medical Center emergency department? | 6 |
| Rush Oak Park Hospital emergency department patients | 8 |
| Rush University Medical Center inpatients | 10 |
| Rush Oak Park Hospital inpatients | 12 |
| Rush University Medical Group primary care patients | 14 |
| Rush University Medical Group outpatient specialty patients | 16 |
| Where are the equity gaps? | 18 |
| Readmissions | 18 |
| Quality metrics | 19 |
| Patient experience | 22 |
| How do Rush patients reflect national public health trends? | 24 |
| Pregnancy and delivery complications | 25 |
| Children's respiratory health | 28 |
| Cardiovascular health | 30 |
| What's next? | 32 |

What is health equity? And what is Rush doing to achieve it?

The Robert Wood Johnson Foundation, the largest philanthropic organization in the U.S. devoted to health, has a good definition of health equity:

Health equity means everyone has a fair and just opportunity to be healthier. It acknowledges that it's hard to be healthy without access to good jobs, homes and schools. It requires concerted effort to increase opportunities to be healthier for everyone — especially those whose obstacles are greatest.



©2017 Robert Wood Johnson Foundation

At Rush, we believe...

Addressing health equity means removing obstacles to good health so that everyone can attain their full health potential.

This is Rush's first-ever health equity report. Inside, you'll find a snapshot of patient data* that sets a baseline for looking at the state of health equity at Rush. It tells us...

- Who our patients are
- Where we see health equity gaps and opportunities
- · How our patients' issues reflect national health equity issues



Want to read about what Rush is doing to achieve excellence in health equity?

These three publications will tell you more. You can find them at rush.edu/about-us/rush-community/road-maps-and-reports

- Our Community Health Needs
 Assessment (CHNA) looks at community data to identify the inequities faced by people who live in some of the neighborhoods near Rush University Medical Center and Rush Oak Park Hospital.
- The Community Health Implementation Plan (CHIP) outlines our goals and strategies for reducing hardship and improving well-being in those neighborhoods.
- The Community Benefits
 Summary reports our progress toward CHIP goals.

One difference you'll see between those reports and this one:
Because people identify with their neighborhoods more than they identify with their ZIP codes, the CHNA and CHIP organize information by community area. But at Rush, we collect patient data according to ZIP code, so that's how we mapped the data used in this report.

^{*}We focus in this report on patients at Rush University Medical Center and Rush Oak Park Hospital. In the future, we hope to include Rush Copley Medical Center patients, too.

Working toward health equity

Rush aims to provide the same excellent care to all patients, but we know that some of them need more care — and different kinds of care — to achieve the same health outcomes as others. Working toward health equity requires us to focus on the subsets of patients who are not thriving, and identify ways to improve their outcomes.

Our Community Health Needs Assessment revealed that life expectancy in the Rush service area ranges from 85 years on Chicago's Gold Coast to under 69 years in Garfield Park on the West Side, a 16-year gap between two neighborhoods just a few miles apart. And while many people think that violence is the main cause of this gap, in reality more than half of the premature deaths on the West Side are caused by cancer, heart disease, stroke, diabetes and infant mortality. Poverty, structural racism, neighborhood conditions, educational achievement and other factors are the root cause of many health inequities — and health care delivery plays an important role as well.

Our patients reflect the racial, ethnic, gender, geographic and national diversity of the Chicago region; a significant proportion of them are from the West Side neighborhoods near Rush University Medical Center. Overall, our patients receive excellent care, yet this report shows some areas of disparity and opportunities for improvement across all ages, races and ethnicities.

The Rush System has made health equity improvement a systemwide strategy. Instead of simply treating the illnesses that arise from inequities, we are working to create healthier communities. For example, we now screen our patients for the social determinants of health: When taking a patient's history, providers also ask about housing, transportation, food security and other issues — questions that haven't been part of the health care experience until now — and connect them with services as needed.

As the largest private employer on Chicago's West Side and an anchor institution in the community, we are committed to making sure that we boost the economic vitality of nearby neighborhoods that have been hit hard by poverty and structural racism. We have made a commitment to hiring locally and developing talent; using local labor for capital projects; buying and sourcing locally; investing locally and creating financial stability for Rush employees; and volunteering in the community.

We have analyzed and shared our community health data, which has spurred new community engagement efforts in our neighborhoods. Now, as the next step, we are analyzing and sharing our patient care data. As with any report, the data contained here is limited and perhaps raises more questions than answers. We hope it spurs interest among our staff, faculty, residents and students to contribute to Rush's health equity efforts.

Can Coules

David Ansell, MD, MPH

Senior Vice President for Community Health Equity, Rush University Medical Center Associate Provost for Community Affairs, Rush University



The Rush System has made health equity improvement a **systemwide strategy.** Instead of simply treating the illnesses that arise from inequities, we are working to create healthier communities.

Patient data creates equity framework

Epidemiologists who focus on health equity have a passion for uncovering trends, using data to guide smart decisions and promoting the idea that everyone should have the opportunity to be healthy. That passion drove the creation of this report, where we use the principles of epidemiology to share what we know about the patients Rush serves — how many people we see, where they're from, who they are — and examine where we stand in a variety of areas related to health equity.

While Rush's Community Health Needs Assessment (a companion publication to this one) focuses on the health of people in the communities immediately surrounding Rush, here we focus on all the people who come through our doors. Many of them come from the West Side communities near Rush, but many also come from the wider metropolitan region.

In addition to examining the populations we serve, this report also bridges the fields of public health and health care by connecting health disparities at the national and local levels with reasons that patients are seen at Rush. We focus largely on disparities related to race and ethnicity, as these disparities remain pervasive in Chicago and in the US overall

At the same time, we know that a number of other factors can lead to health disparities, including age, gender, sexual orientation, gender identity, access to health care, education, occupation, income, neighborhood environment, trauma, life experiences and more. This is the first report of its kind at Rush; in future reports, we plan to focus on how these factors and other social determinants of health intersect.

Of course, creating reports is not enough. I hope that this report, in conjunction with Rush's substantial community engagement work, will serve as a call to action. Addressing health disparities takes ideas and commitment from people with a wide variety of experiences and expertise. Everyone in the Rush community, regardless of their role, has the opportunity to bring health equity into their work — and we hope you'll share your ideas about how we can work together toward equity.

Brittney Lange-Maia, PhD, MPH

Assistant Professor in Preventive Medicine

Rush University



In creating this report, we found many interesting stories in our data that reflect national trends in public health. We learned from the data challenges we encountered, and we're now equipped to build on this report with future epidemiological projects that look more specifically into some of the areas identified here.

Eric Yang, MPH Statistician Center for Community **Health Equity Rush University Medical Center**





Overall, the people seeking care at Rush are demographically, geographically and linguistically diverse. However, when we document differences in who is using health services in different settings, we must pause and ask: Why? What are the structural factors that may be driving people to use the various components of health care delivery in a different way? And through reflection and action, how can we alter these structural factors to improve the equitable delivery of health care?

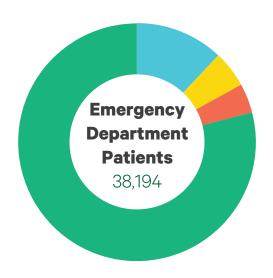
Raj C. Shah, MD Co-director, Center for Health Equity Associate Professor Rush University

Who are Rush patients? Where are they from?

A lot of Rush's health equity work is focused on the West Side communities closest to our Chicago campus — but here we're looking more broadly at where our patients come from. The data in this section reflects patients who were seen at Rush between Jan. 1 and Dec. 31, 2017.



Who comes to the Rush University Medical Center emergency department?



The biggest group (40 percent of patients and 43 percent of visits) came from the largest ZIP codes* on the West Side of Chicago.





| Manager Francisco | an myo man myo man myo |
|-------------------|--|
| | CHICAGO |

See rush.edu/HealthEquityResources for maps of where each group of patients lived.

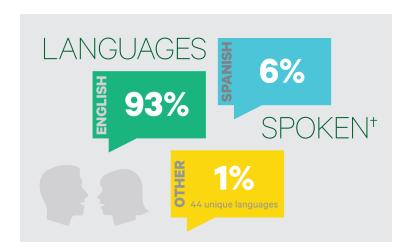
| Chicago Communities | 5 |
|---------------------|--------|
| West Side | 15,412 |
| Southwest Side | 4,011 |
| South Side | 3,215 |
| Far Southeast Side | 1,565 |
| North Side | 1,464 |
| Far Southwest Side | 1,195 |
| Loop | 1,089 |
| Northwest Side | 1,064 |
| Far North Side | 1,055 |
| | |

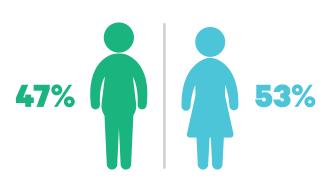
| Cicero | |
|----------------------|--------|
| Cicero | 557 |
| Oak Park | 304 |
| Berwyn | 273 |
| Riverdale | 141 |
| Maywood | 139 |
| Top 5 Neighboring Co | unties |
| Dupage | 644 |
| Will | 473 |
| Lake | 268 |
| Kane | 206 |
| McHenry | 100 |
| Other Counties | 1,867 |

*60622, 60612, 60607, 60608, 60623, 60624, 60651, 60639, 60644

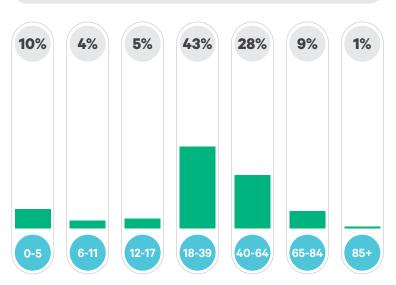


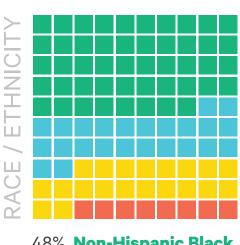
The patients were mostly English speakers, mostly adults, and about the same percentages of men and women.* Almost half identified themselves as non-Hispanic black.





Distribution of Age Categories





48% Non-Hispanic Black

24% Hispanic

20% Non-Hispanic White

08% Other/Unknown

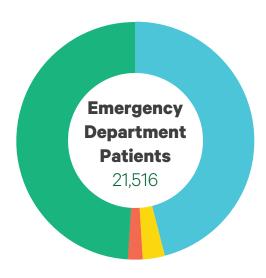
^{*}The data collected represent biologic sex; Rush is committed to equity of care, and respects that gender identity is not limited to the binary. *Based on preferred language listed in electronic health records.





Rush Oak Park Hospital emergency department patients

About half of these patients came from Chicago's West Side and half came from outside the city (mainly from Oak Park, Forest Park and Berwyn).



Rush Oak Park Hospital's role is different from that of an academic health care institution; we take pride in being a center of community health expertise. Being early adopters of innovative programs to address health needs has helped us become an influencer of health outcomes — and giving is in the hearts of most health care providers, so our work to promote health equity simply makes sense.

Rachel E. Start, RN, MSN

Director, Ambulatory Nursing, Nursing Practice and Magnet Performance Rush Oak Park Hospital



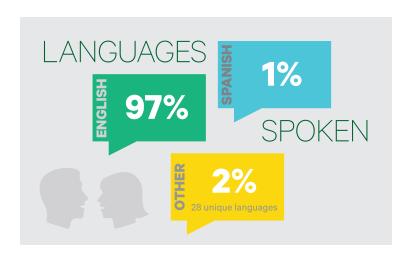
| Chicago Communities | |
|---------------------|-------|
| West Side | 8,122 |
| Northwest Side | 1,091 |
| Southwest Side | 322 |
| South Side | 319 |
| Far Southeast Side | 171 |
| North Side | 169 |
| Far North Side | 149 |
| Far Southwest Side | 131 |
| Loop | 104 |
| | |



| Top 5 of 78 Suburbs | | |
|---------------------------------|------------------|--|
| Oak Park | 3,549 | |
| Forest Park | 1,184 | |
| Berwyn | 1,103 | |
| Elmwood Park | 702 | |
| Maywood | 626 | |
| Top Neighboring Counties | | |
| Top Neighboring Cou | unties | |
| Top Neighboring Cou | 339 | |
| | | |
| Dupage | 339 | |
| Dupage Will | 339 118 | |
| Dupage Will Lake | 339 118 38 | |

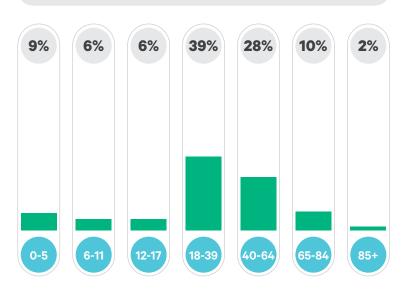


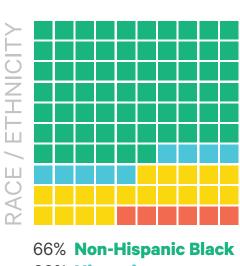
Patients were mostly adult English speakers. The percentage of non-Hispanic black patients was higher than at Rush University Medical Center, and we treated more women than men.





Distribution of Age Categories





09% Hispanic

19% Non-Hispanic White

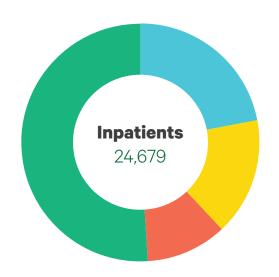
06% Other/Unknown





Rush University Medical Center inpatients

About half of admitted inpatients lived in Chicago — mostly on the West and South sides — and half lived in suburban Cook County.



Patients from the West Side of Chicago accounted for 20 percent of total visits to Rush University Medical Center.



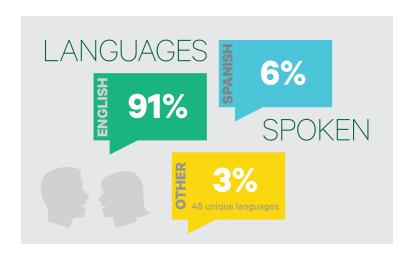
| Chicago Communities | ; |
|---------------------|-------|
| West Side | 4,768 |
| Southwest Side | 1,593 |
| South Side | 1,491 |
| Far Southeast Side | 957 |
| North Side | 925 |
| Far North Side | 909 |
| Far Southwest Side | 745 |
| Northwest Side | 659 |
| Loop | 574 |



| Top 5 of 86 Suburbs | |
|----------------------|------------|
| Oak Park | 472 |
| Cicero | 270 |
| Berwyn | 205 |
| Chicago Heights | 175 |
| Elmwood Park | 170 |
| Top 5 Neighboring Co | unties |
| Dupage | 1,186 |
| Will | 1,026 |
| | |
| Lake | 560 |
| Lake Kane | 560 413 |
| | |

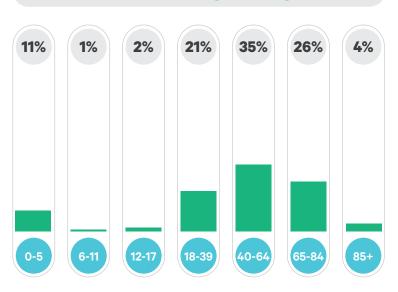


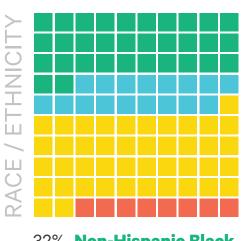
Most inpatients were adult English speakers, and we admitted more women than men. The largest group of patients was non-Hispanic whites.





Distribution of Age Categories





32% Non-Hispanic Black

17% Hispanic

43% Non-Hispanic White

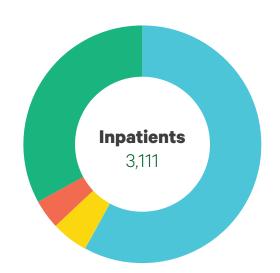
08% Other/Unknown





Rush Oak Park Hospital inpatients

These inpatients lived mainly in suburban Cook County; those who lived in Chicago were mostly from the West Side.



Data drives us toward medical decision-making that supports the health of our patients. But data that includes the social determinants of health drives us toward medical decision-making that supports the health of our communities.

Michael Hanak, MD, FAAFP Associate Chief Medical Informatics Officer Rush University Medical Center

Associate Professor Rush University



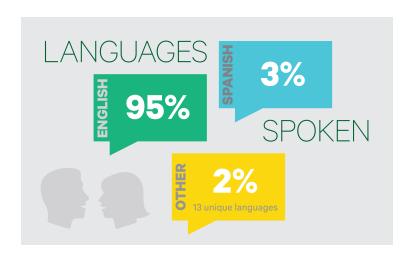
| Chicago Communities | |
|--|-----|
| West Side | 716 |
| Northwest Side | 119 |
| South, Far Southeast, Far Southwest Sides | 60 |
| Southwest Side | 55 |
| North Side/Loop | 51 |
| Far North Side | 41 |
| | |



| Top 5 of 65 Suburbs | |
|----------------------|-------|
| Oak Park | 731 |
| Forest Park | 215 |
| Berwyn | 164 |
| Elmwood Park | 120 |
| River Forest | 96 |
| Top Neighboring Cour | nties |
| Dupage | 78 |
| Will | 29 |
| | |
| Other Counties | 134 |

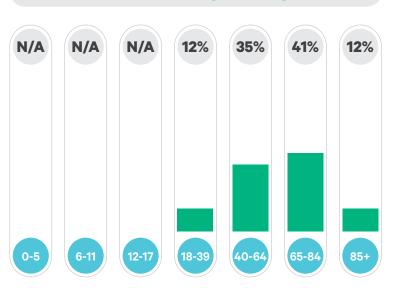


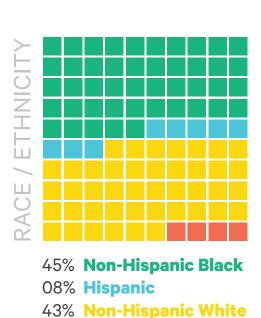
All inpatients were adults (Rush Oak Park Hospital doesn't treat pediatric inpatients), and most spoke English. We treated more women than men, and about equal percentages of non-Hispanic blacks and non-Hispanic whites.





Distribution of Age Categories



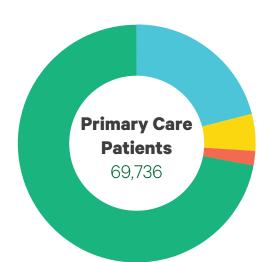


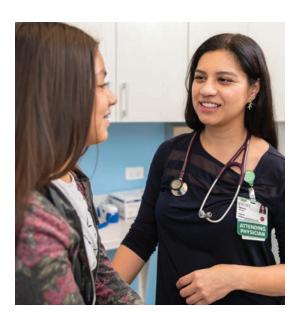
04% Other/Unknown



Rush University Medical Group primary care patients

Rush operates several widely scattered primary care clinics, so patients completing at least one primary care visit came from a much wider geographic range than inpatients and emergency department patients.







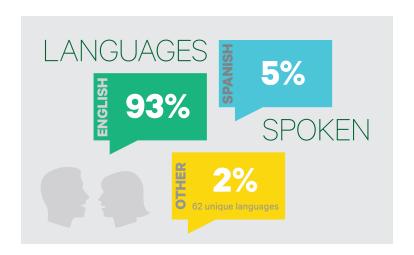
| Chicago Communities | S |
|---------------------|--------|
| West Side | 17,462 |
| North Side | 6,587 |
| South Side | 5,653 |
| Southwest Side | 5,121 |
| Far North Side | 3,668 |
| Loop | 3,465 |
| Far Southeast Side | 2,968 |
| Far Southwest Side | 2,648 |
| Northwest Side | 2,365 |
| | |



| Top 5 of 87 Suburbs | |
|----------------------|---------|
| Oak Park | 1,922 |
| Berwyn | 798 |
| Cicero | 740 |
| Oak Lawn | 525 |
| Elmwood Park | 476 |
| Top 5 Neighboring Co | ounties |
| Dupage | 1,592 |
| Will | 1,045 |
| Lake | 479 |
| Kane | 239 |
| McHenry | 161 |
| Other Counties | 1,787 |

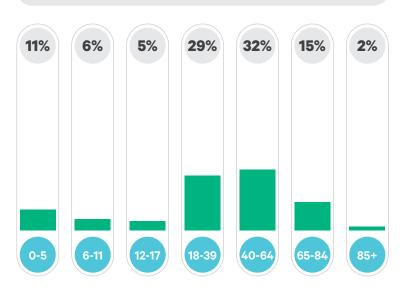


Most primary care patients were women, and most spoke English. Non-Hispanic white and black patients were each about one-third of the patient population.





Distribution of Age Categories



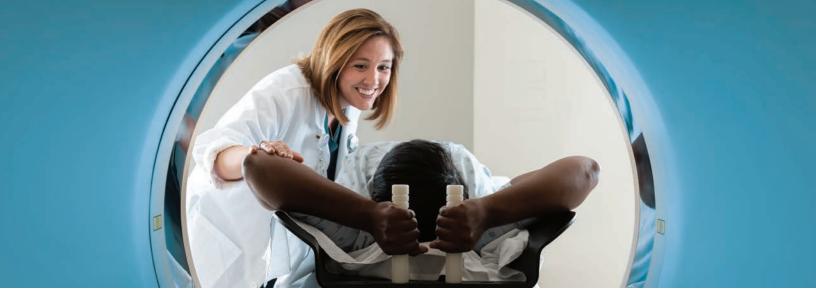


34% Non-Hispanic Black

22% Hispanic

37% Non-Hispanic White

07% Other/Unknown





Rush University Medical Group outpatient specialty patients

Most of the patients who made at least one office visit to an outpatient specialty department came from suburban Cook County; within Chicago, most came from the West Side.







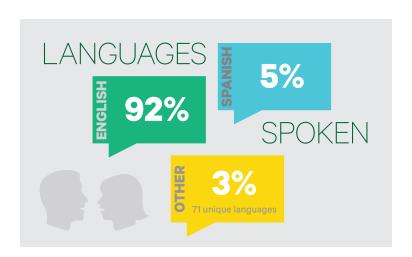
| Chicago Communities | |
|---------------------|--------|
| West Side | 16,417 |
| South Side | 6,404 |
| North Side | 6,319 |
| Southwest Side | 5,475 |
| Far North Side | 4,966 |
| Loop | 4,196 |
| Far Southeast Side | 3,573 |
| Far Southwest Side | 3,339 |
| Northwest Side | 2,998 |



| Top 5 of 86 Suburbs | |
|----------------------|----------------|
| Oak Park | 3,816 |
| Berwyn | 1,350 |
| Cicero | 1,098 |
| Elmwood Park | 997 |
| Orland Park | 991 |
| Top 5 Neighboring Co | unties |
| | |
| Dupage | 9,022 |
| Dupage Will | 9,022 4,763 |
| . • | -,- |
| Will | 4,763 |
| Will Lake | 4,763 3,550 |

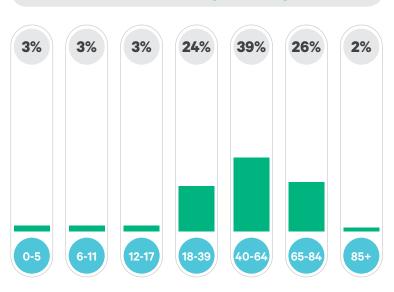


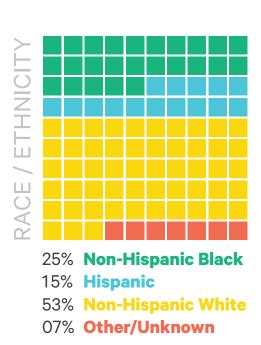
We treated mostly adults, and more women than men. Most patients spoke English, and more than half were non-Hispanic whites.





Distribution of Age Categories





Where are the equity gaps?

Once we had a clear picture of who Rush patients are, we could look at how we serve patients of different ages, races and sexes. We looked at readmissions, quality metrics and patient satisfaction.



One way to measure quality of care is to track how many patients are readmitted to the hospital within 30 days after they're discharged.

At Rush University Medical Center, patients of different ages, races and sexes had different readmission rates.





Male patients were 13.7 percent more likely than female patients to be readmitted.

Non-Hispanic black patients were **63.5 percent more** likely than non-Hispanic white patients to be readmitted.

Hispanic patients were 55.4 percent more likely than non-Hispanic white patients to be readmitted.

At **Rush Oak Park Hospital**, we didn't see any significant readmission differences between racial/ethnic groups.



For years, Rush has tracked and improved quality measures, driven both by external data-reporting requirements and our internal work to identify performance improvement opportunities. Now, it's time for us to look at these measures through the lens of equity to find ways to narrow the quality gaps among the diverse populations we serve. Rush's promise to all of our patients is quality care and

> the best health outcomes.

> > Anisa Jivani, MHSA Director of Quality Improvement Rush University **Medical Center**





Quality metrics

This data tracks patients who visited Rush University Medical Group primary care clinics in 2017. Although we measure many more factors, we chose to highlight these because they represent well-known health disparities among a range of age groups.

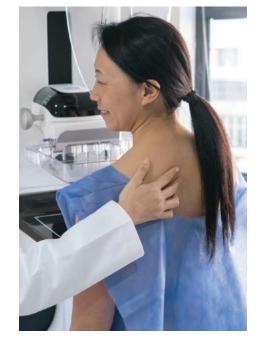


Breast cancer screening

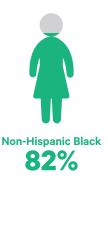
Black and Hispanic women in the U.S. die of breast cancer at higher rates than white women, partly because inequities in screening result in later diagnoses for black women.

Rush performed screening mammograms on 79 percent of female patients between the ages of 50 and 74. Some may have been screened elsewhere, which is not reflected in this data.

Non-Hispanic White 75%











At Rush, non-Hispanic black women and Hispanic women were more likely to have mammograms than non-Hispanic white women.





Colorectal cancer screening

Black patients in the U.S. tend to get screened for colorectal cancer less than other groups, which can mean that they are diagnosed later and have worse outcomes. However, at Rush, we actually screened slightly more non-Hispanic black patients than non-Hispanic white patients.





Non-Hispanic **Black**



Hispanic



Non-Hispanic



Other/Unknown







Well-controlled high blood pressure

Seventy-five percent of non-Hispanic white patients did a good job of controlling their blood pressure, compared to 66 percent of non-Hispanic black patients and 70 percent of Hispanic patients.





Non-Hispanic **Black**



Hispanic



Non-Hispanic White



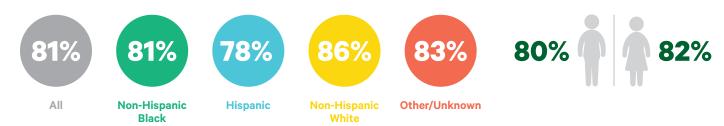
Other/Unknown

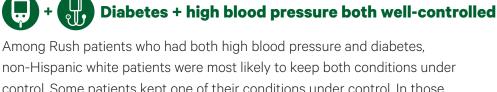
Men and women controlled their blood pressure equally well.



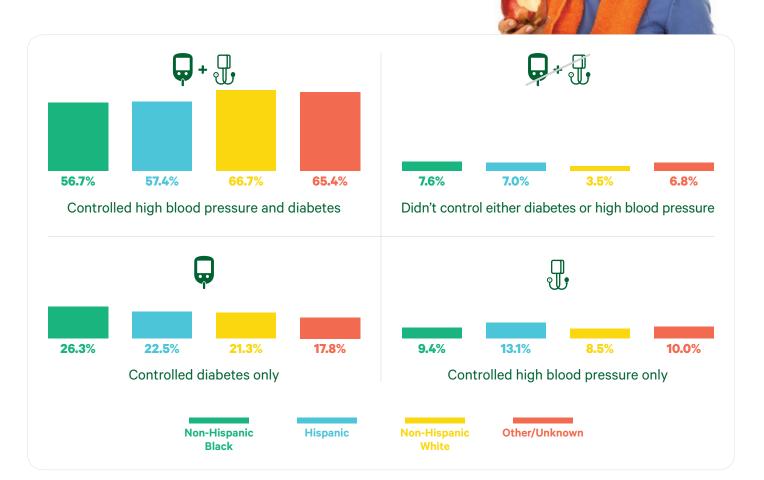


Eighty-six percent of non-Hispanic white patients did a good job of controlling their diabetes, compared to 81 percent of non-Hispanic black patients and 78 percent of Hispanic patients.





control. Some patients kept one of their conditions under control. In those cases, non-Hispanic black patients were best at controlling their diabetes, and Hispanic patients did the best at controlling their blood pressure.



^{*}This data does not reflect how severe patients' symptoms are





Patient experience

The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey measures patients' satisfaction with their hospital stays. Overall, Rush patients were more satisfied than the national average; the data below shows the percentage of patients who gave Rush the highest possible scores.

Hispanic patients were likelier than other groups to give us a high rating, while patients of other or unknown race were least likely to rate Rush highly. Non-Hispanic black patients were more likely than non-Hispanic white patients to give us a high overall hospital rating, and non-Hispanic black and white patients were equally willing to recommend Rush.

Overall Hospital Rating







National Average



Non-Hispanic Black



Hispanic



Non-Hispanic White



Other/Unknown

Recommend the Hospital



Rush Average



National Average



Non-Hispanic Black



Hispanic



Non-Hispanic White



Other/Unknown

Most patients rated Rush's nurse and doctor communication as better than the national average. Hispanic patients were most likely to give us top marks, and patients of other or unknown race were least likely to rate us highly.

Nurse Communication



Rush Average



National Average



Non-Hispanic Black



Hispanic



Non-Hispanic White



Other/Unknown

Doctor Communication



Rush Average



National Average



Non-Hispanic Black



Hispanic



Non-Hispanic White



Other/Unknown

Our biggest improvement opportunity is in care transitions

Our biggest improvement opportunity is in care transitions — the times when patients move from place to place, such as from the hospital to a rehab center. We received lower than average ratings from non-Hispanic black patients and those of other or unknown race.



Care Transitions



Rush Average



National Average



Non-Hispanic Black



Hispanic



Non-Hispanic White



Other/Unknown

How do Rush patients reflect national public health trends?

Our numbers are similar to those of general U.S. health patterns.

As we analyzed data on inpatients and emergency department patients, we identified three issues that often bring patients to Rush and also reflect well-known health disparities among racial and ethnic groups in the U.S: Pregnancy and delivery complications, children's respiratory health and cardiovascular health.

The disparities we saw at Rush match those that occur in Chicago and in the U.S. overall. This indicates that the differences aren't due to people getting unequal care at Rush, but to societal-level differences in health outcomes that are linked to many different factors.

We know our analysis has limitations; for example, body-mass index (BMI) isn't part of our data, but can affect relationships between conditions like diabetes and high blood pressure. And because our data reflects ZIP codes but one ZIP code can include multiple neighborhoods, we can't break down our data into specific neighborhoods.

Many disparities are related to social determinants of health such as access to good schools and jobs, healthy food, stable housing, reliable transportation and safe neighborhoods. The annual Rush Community Benefits Summary, available at rush.edu/rush-community, shows some of the ways we're working to make sure our communities have the resources they need to be healthier.



Looking at patient care through a health equity lens means bridging the gap between where people come from and how we see them when they come through the doors at Rush. Considering disparities sensitizes us to the real circumstances of people's lives, and ensures that we build nursing interventions with the social determinants of health in mind addressing the needs that have to be addressed in order to achieve good health.







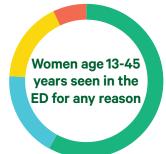
Pregnancy and delivery complications

Many women who come to Rush with pregnancy complications come from the mostly black and Hispanic communities around our Chicago campus, but we're more likely to see black women for these complications than women of other racial/ethnic groups. According to the Agency for Healthcare Research and Quality, even though black mothers in the U.S. tend to be younger than white mothers, they have higher rates of complications.* It's important to note that Rush is a Level 3 perinatal hospital that accepts emergency OB transfers, so we receive patients with major complications that other hospitals aren't equipped to treat.

Rush emergency department visits by women of childbearing age

Pregnancy-related complications were some of the most common reasons that brought women of childbearing age to the Rush emergency department in 2017. The number of non-Hispanic black women with these complications was particularly high, consistent with the general U.S. pattern.

We identified pregnancyrelated complications as an issue to discuss in this report because it's one of the most **common** reasons for women of childbearing age to visit the Rush emergency department, and the number of black women we saw with these complications was particularly high.



58% Non-Hispanic Black

18% Hispanic

17% Non-Hispanic White

07% Other/Unknown



66% Non-Hispanic Black

19% Hispanic

09% Non-Hispanic White

06% Other/Unknown

*AHRQ, 2018, "Trends and Disparities in Delivery Hospitalizations Involving Severe Maternal Morbidity, 2006–2015." www.hcup-us.ahrq.gov/reports/statbriefs/sb243-Severe-Maternal-Morbidity-Delivery-Trends-Disparities.jsp



Rush emergency department pregnancy-related complications*

Non-Hispanic black women who visited the Rush University Medical Center and Rush Oak Park Hospital emergency departments had twice the odds of visiting for pregnancy-related complications as non-Hispanic white women.





*Data adjusted by age.



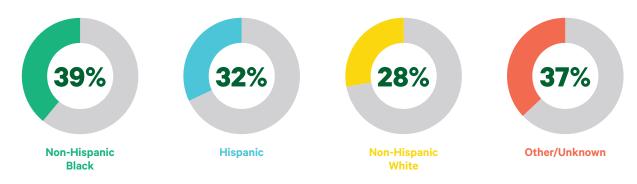
We don't yet fully understand why pregnancy-related complications exist at a higher rate for non-Hispanic black women. What we do know is that at Rush, we are committed to delivering the highest quality care to all of our mothers and babies. and are equally committed to studying and better understanding the issues surrounding these disparities. As we work together with our community and patients, I am confident that Rush can have a significant impact on this challenge for the patients we serve.



Cynthia Barginere,
DNP, RN, FACHE
Senior VP and Chief
Operating Officer
Rush University
Medical Center

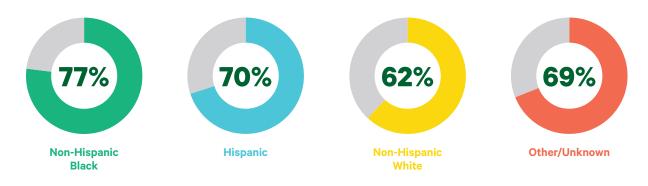
Vaginal delivery complications at Rush*

Non-Hispanic black women who gave birth at Rush University Medical Center had 1.7 times the odds of having a complication compared to non-Hispanic white women.



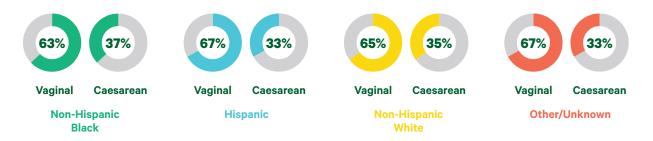
Caesarean deliveries with complications at Rush*

Non-Hispanic black women who gave birth at Rush University Medical Center had twice the odds of having a complication as non-Hispanic white women.



Vaginal delivery vs. caesarean delivery rates by race at Rush

While studies show that non-white women in the U.S. are more likely to have C-section deliveries, at Rush we saw no racial differences.



^{*}Data is based on Rush birth hospitalization diagnostic-related groups (DRGs) and adjusted for age.





Children's respiratory health

Research shows that non-Hispanic black children in the U.S. are more likely to live in neighborhoods with more residential allergens and pollution, and to have higher stress levels because of more violence and poverty. Both contribute to a higher prevalence of asthma and respiratory illnesses.

Nationwide, according to the Environmental Protection Agency, asthma prevalence is about twice as high among non-Hispanic black children compared to non-Hispanic white children. In Chicago, the Respiratory Health Association says that the 2015 rate of asthma-related emergency department visits by non-Hispanic black children was about five times higher than that of non-Hispanic white children. For a map of asthma prevalence among children in Chicago, see rush.edu/HealthEquityResources.

Asthma prevalence among children in the U.S.*

Non-Hispanic black children in the U.S. are almost twice as likely to have asthma as non-Hispanic white children.



National Average



Non-Hispanic Black



Hispanic



Non-Hispanic

Nationwide, according to the EPA, asthma prevalence is about **twice as high** among non-Hispanic black children compared to non-Hispanic white children.



^{*}Environmental Protection Agency, 2017, "ACE: Health—Respiratory Diseases," www.epa.gov/ace/ace-health-respiratory-diseases,

Rush emergency department asthma visits by children*

Among children who visited Rush emergency departments, non-Hispanic black children were 2.5 times more likely to be there for asthma than non-Hispanic white children.



Non-Hispanic Black
3.3%



Hispanic 1.4%



Non-Hispanic White



Other/Unknown

Rush emergency department visits by children for respiratory infection*

Non-Hispanic black children who visited our emergency departments were 1.5 times more likely to be there for respiratory infections than non-Hispanic white children.



Non-Hispanic Black **21.5%**



Hispanic **16.6%**



Non-Hispanic White 14.6%



Other/Unknown 14.4%

Inpatient bronchitis/asthma stays*

Among children who were hospitalized at Rush, non-Hispanic black children were 5.8 times more likely to be admitted for respiratory infections than non-Hispanic white children.



Non-Hispanic Black



Hispanic 2.9%



Non-Hispanic White



Other/Unknown

3

According to Respiratory Health Association data. 63 percent of children in Chicago who visited the emergency department for asthma in 2015 were black, 22 percent were Hispanic and 6 percent were white. At Rush in 2017, 80 percent of children making asthmarelated visits were black. 14 percent were Hispanic and 4 percent were white. It's clear that the communities we serve bear a disproportionate amount of this citywide disparity — and that we are both well situated and fully obligated to address its root causes.

Gina Lowell MD, MPH
Assistant Professor
and Director of
Community Health
for Pediatrics
Rush University
Children's Hospital
and Rush University
Medical Center







Cardiovascular health

Cardiovascular health is a special concern for non-Hispanic black adults, who are more likely to have conditions such as diabetes and hypertension that contribute to poor cardiovascular health.

In Chicago, compared to non-Hispanic white adults, non-Hispanic black adults are:

more likely to have **high blood pressure** than non-Hispanic white adults

2X

as likely to be diagnosed with **diabetes** as non-Hispanic white adults

A potential contributing factor: More than half of the people who lack health insurance are non-white.

And far more black people die of heart disease than white people in Chicago:

Per 100,000 adults, **262.2** non-Hispanic black adults die of **heart disease**, compared to **194.7** non-Hispanic whites.*

66

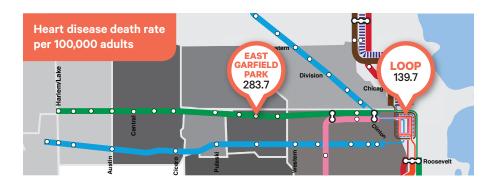
Recent data points to lifestyle choices, particularly nutrition, as key factors in the development of hypertension, diabetes, stroke, heart disease and premature death in African-Americans. At Rush, we focus on meeting the patient where they are in the quest to change these factors. We like to say that we are not just "mopping up the floor" with cutting-edge treatments and procedures after the complications set in. Instead, we are turning off the overflowing faucet - changing the outcomes by preventing these events before they occur.

Kim A. Williams Sr., MD, MACC, FAHA, MASNC, FESC



*Data adjusted by age.

In Chicago's affluent downtown Loop, the heart disease death rate is 139.7 per 100,000. Just a few miles west, in the East Garfield Park neighborhood not far from the Rush campus, the rate is more than double: 283.7.



Emergency department visits for heart disease*

We didn't see a significant difference in the numbers of non-Hispanic black adults and non-Hispanic white adults who visited the Rush University Medical Center and Rush Oak Park Hospital emergency departments for heart disease. For a map of where these patients live, see rush.edu/HealthEquityResources.



Non-Hispanic Black **8.6%**



7.8%



Non-Hispanic White 7.3%



Other/Unknown 6.6%



Inpatient visits for heart failure*

Our inpatient data for heart failure shows a much bigger racial/ethnic gap. Non-Hispanic black adults were more than three times as likely to be hospitalized at Rush for heart failure than non-Hispanic white adults.



Non-Hispanic Black
4.7%



Hispanic 1.9%



Non-Hispanic White 1.5%



Other/Unknown

Non-Hispanic black adults were more than **3X** as likely to be hospitalized at Rush for heart failure than non-Hispanic white adults.

^{*}Data adjusted by age and gender.

What's next?

Keep thinking about health equity at Rush — and share your thoughts about how we can do better.



Where to learn more

We've collected a number of resources that you can use to learn more about health equity. Go to rush.edu/HealthEquityResources to find the following:

Further information about health equity nationwide and in Chicago:

The Robert Wood Johnson Foundation report on health equity

Videos from the Institute for Healthcare Improvement

The citywide public health plan Healthy Chicago 2.0

The Metropolitan Planning Council's report on the cost of segregation in Chicago

More information about how we created this report on health equity at Rush:

Project operationalization details

Definitions

Methods information

Maps that show where Rush patients live and other information



Questions to consider

How can we expand conversations around health equity across the Rush System?

Rush serves a diverse patient population, many of whom come from highly segregated communities coping with major economic hardship and considerable health disparities. How can Rush help to eliminate health disparities in our neighboring communities?

How can we expand programs that link medical care and community health?



Report Development

David Ansell, MD, MPH

Senior Vice President for Community Health Equity, Rush University Medical Center Associate Provost for Community Affairs, Rush University

Brittney Lange-Maia, PhD, MPH

Assistant Professor, Department of Preventive Medicine, Rush University Affiliated Faculty, Center for Community Health Equity

Eric Yang, MPH

Statistician, Center for Community Health Equity

Chandrea Brown, MS

Information Services Project Leader, Data Services & Knowledge Management, Rush University Medical Center

Elizabeth Avery, MPH

Statistician, Rush Department of Preventive Medicine and Center for Community Health Equity

Elizabeth Lynch, PhD

Associate Professor, Department of Preventive Medicine, Rush University Affiliated Faculty, Center for Community Health Equity

Contributors

Cynthia Barginere, DNP, RN, FACHE

Senior Vice President and Chief Operating Officer, Rush University Medical Center

Michael Hanak, MD

Associate Chief Medical Informatics Officer, Rush University Medical Center Associate Professor, Rush University

Anisa Jivani, MHSA

Director, Quality Improvement, Rush University Medical Center

Nikki Hopewell

Senior Content Strategist, Rush University Medical Center

Gina Lowell, MD, MPH

Assistant Professor and Director of Community Health for Pediatrics, Rush University Children's Hospital and Rush University Medical Center

Marie Mahoney

Senior Director, Web and Marketing and Communications, Rush University Medical Center

Nousheen Meherally, MPH

Performance Improvement Consultant, Quality Improvement, Rush University Medical Center

Christopher Nolan, MPA

System Manager, Community Benefit and Population Health, Rush University Medical Center

Janice Phillips, PhD, RN, FAAN

Director of Nursing Research and Health Equity, Rush University Medical Center

Raj C. Shah, MD

Associate Professor, Department of Family Medicine and Rush Alzheimer's Disease Center Co-director, Center for Community Health Equity

Rachel Start, RN

Director, Ambulatory Nursing, Nursing Practice and Magnet Performance, Rush Oak Park Hospital

Kim A. Williams Sr., MD, MACC, FAHA, MASNC, FESC

Chief, Division of Cardiology, Rush University Medical Center James B. Herrick, MD, Professor of Heart Research, Rush University

Rush Bioinformatics and Biostatistics Core

Design and Writing

Patty Stevenson

Graphic designer

Colleen Frankhart

Writer/editor