The Importance of Addressing Social Determinants of Health

July 2020

Stephen Njenga, MPH, MHA, CPHQ, CPPS
Director of Performance Measurement Compliance
Missouri Hospital Association

Changing Landscape in Health Care

Attribute: © Jorge Royan / http://www.royan.com.ar / CC BY-SA 3.0

# Your Zip Code Equals Your Health

Define Social Determinants of Health

"According to the Centers for Disease Control and Prevention, conditions in the places where people live, learn, work, and play affect a wide range of health risks and outcomes. These conditions are known as social determinants of health."

Social Determinants of Health

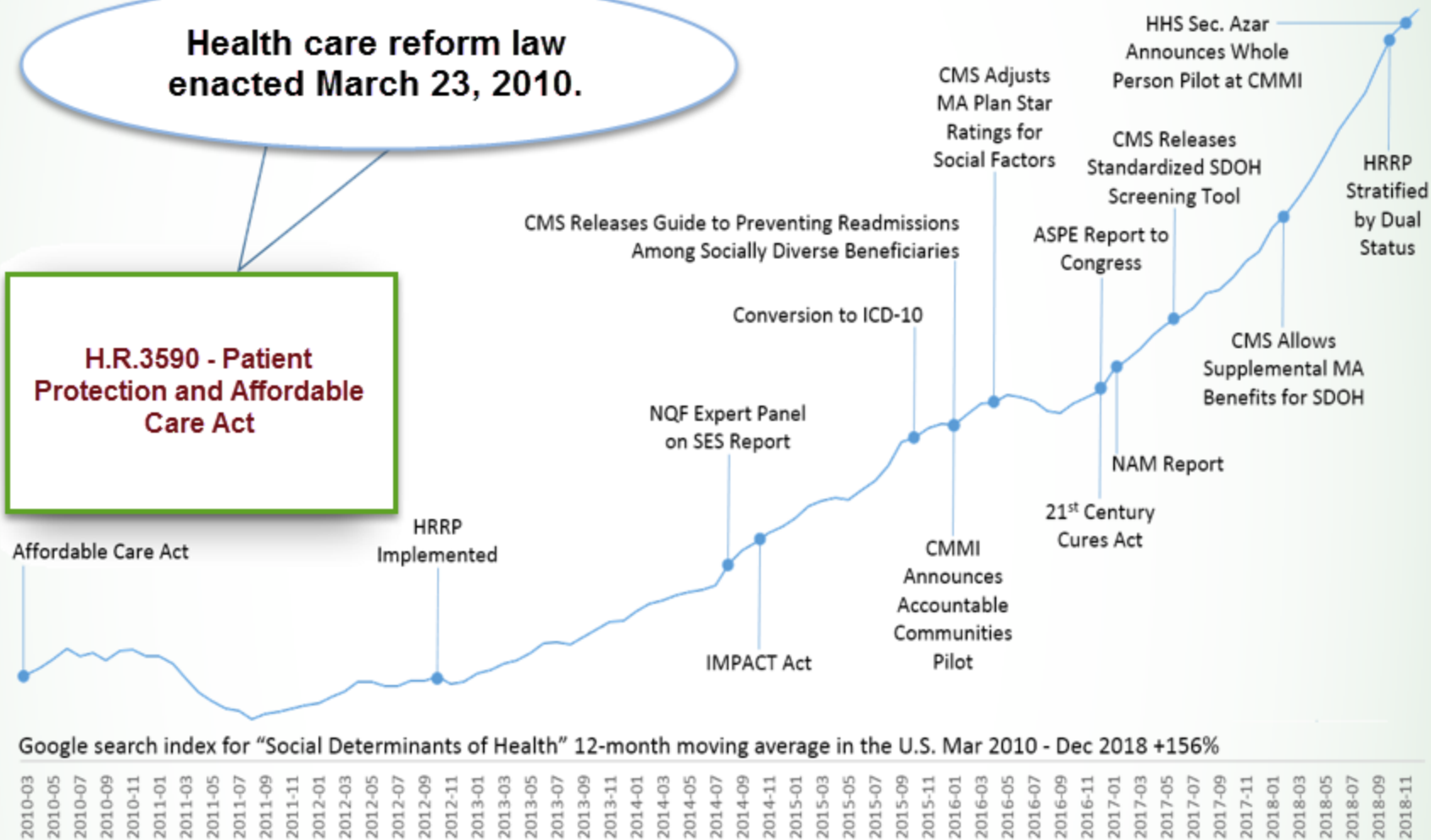| SDOH Dimension	Description
Housing Instability	Having difficulty paying rent or affording a place of one's own, living in overcrowded or run-down conditions
Food Insecurity	Not having reliable access to enough affordable, nutritious food
Transportation	Not having affordable and reliable ways to get to medical appointments or purchase healthy food
Education	Not having access to high school classes or other training
Utility Needs	Not being able to regularly pay utility bills
Violence	Being exposed to use of physical force or power that results in, or has a high likelihood of resulting in, injury or death
Family and Social Support	Not having relationships that provide interaction and nurturing
Employment and Income	Not having the ability to get or keep a job

Source: Deloitte Center for Health Solutions

County Health Rankings Model

County Health Rankings model © 2016 UWPHI
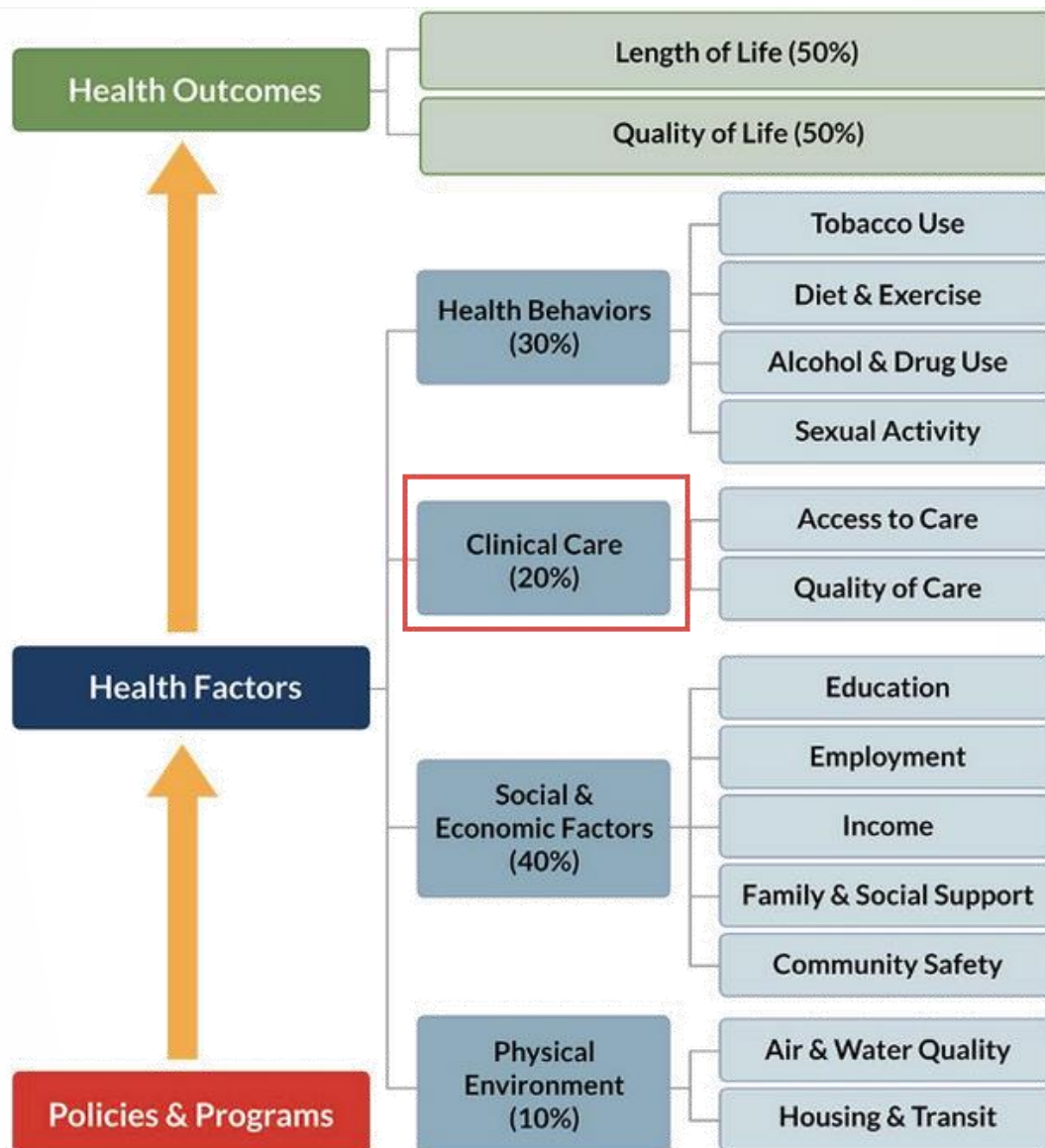
Health care reform law enacted March 23, 2010.

H.R.3590 - Patient Protection and Affordable Care Act

Affordable Care Act

HRRP Implemented

NQF Expert Panel on SES Report

IMPACT Act

CMS Releases Guide to Preventing Readmissions Among Socially Diverse Beneficiaries

Conversion to ICD-10

CMMI Announces Accountable Communities Pilot

CMS Adjusts MA Plan Star Ratings for Social Factors

ASPE Report to Congress

21st Century Cures Act

NAM Report

CMS Releases Standardized SDOH Screening Tool

HHS Sec. Azar Announces Whole Person Pilot at CMMI

CMS Allows Supplemental MA Benefits for SDOH

HRRP Stratified by Dual Status

Google search index for "Social Determinants of Health" 12-month moving average in the U.S. Mar 2010 - Dec 2018 +156%

2010-03 2010-05 2010-07 2010-09 2010-11 2011-01 2011-03 2011-05 2011-07 2011-09 2011-11 2012-01 2012-03 2012-05 2012-07 2012-09 2012-11 2013-01 2013-03 2013-05 2013-07 2013-09 2013-11 2014-01 2014-03 2014-05 2014-07 2014-09 2014-11 2015-01 2015-03 2015-05 2015-07 2015-09 2015-11 2016-01 2016-03 2016-05 2016-07 2016-09 2016-11 2017-01 2017-03 2017-05 2017-07 2017-09 2017-11 2018-01 2018-03 2018-05 2018-07 2018-09 2018-11

APR 02 | MORE ON BILLING AND COLLECTIONS

AMA, UnitedHealthcare team up on billing codes that address social determinants of health

The two organizations are working together to standardize how data is collected, processed and integrated regarding SDoH.

Jeff Lagasse, *Associate Editor*

Blue Cross Blue Shield Institute Launches Program to Address Social Determinants of Health at The Community Level
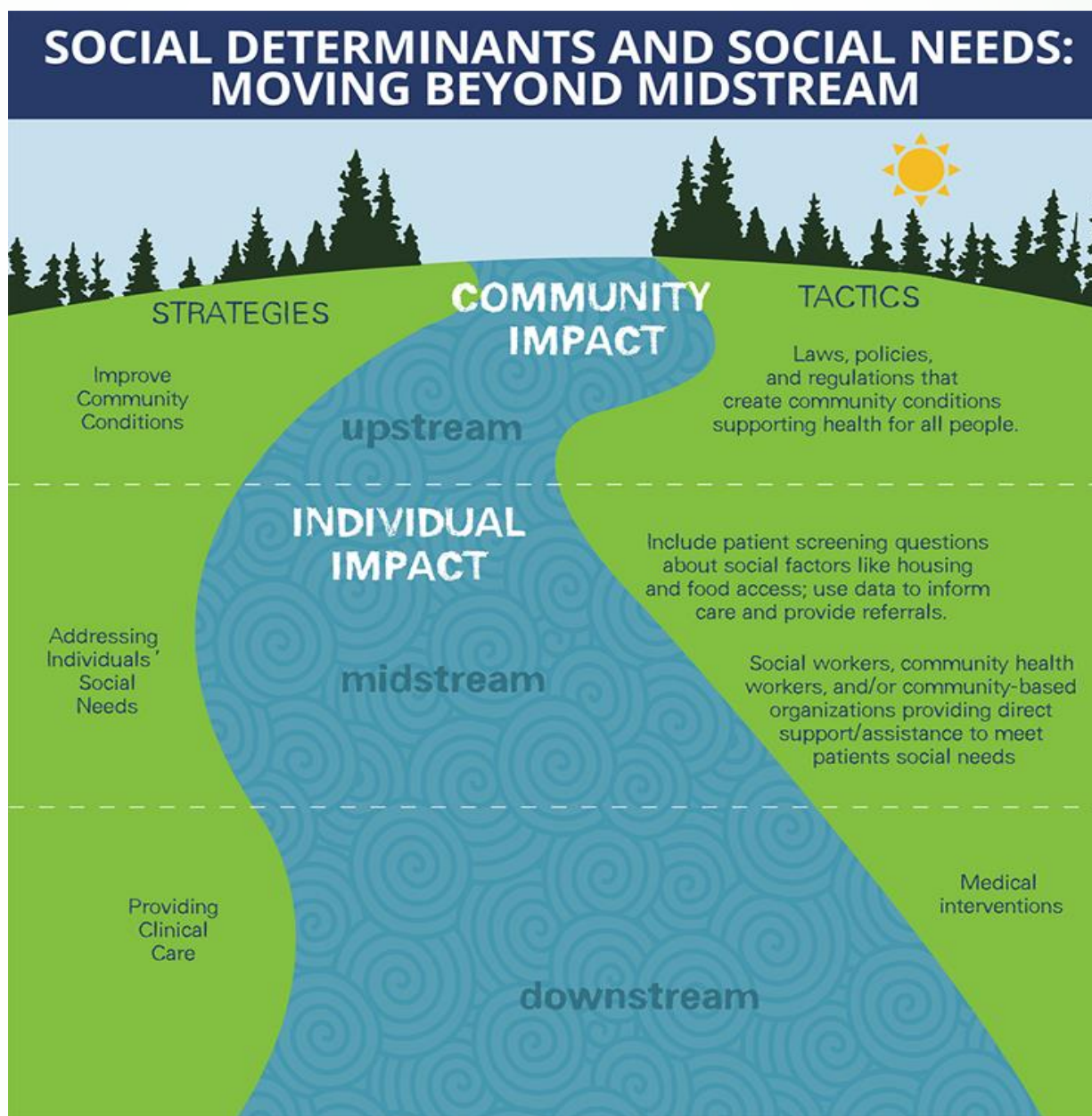
by Fred Pennic 03/26/2019 0 Comments

Blue Cross Blue Shield Institute is teaming up with Solera Health to launch a new program to effectively address social determinants of health (SDOH) at the community level. The national roll-out of the program expected to launch in Q2 2019 will focus on the unique environmental and cultural influences and barriers to successfully coordinating regional SDOH resources at scale.Reaching Beyond Population HealthBy tailoring local SDOH resource recommendations to directly align with individual

Source: https://hitconsultant.net/2019/03/26/bcbs-solera-health-social-determinants-of-health/#.XMCRj2l7mUk
Source: https://www.healthcarefinancenews.com/news/ama-unitedhealthcare-team-billing-codes-address-social-determinants-health

Case Study – Social Determinants of Health

In Depth: Hospitals tackling social determinants are setting the course for the industry

STEVEN ROSS JOHNSON

SDOH Collection Tools

SDOH Standardized Screening Tools

- ICD-10 Z Codes in Hospital Setting
- Electronic Health Record Platforms
- Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences Tool
- American Academy of Family Physicians Social Needs Screening Tool
- The Centers for Medicare & Medicaid Services Accountable Health Communities
- Self-Sufficiency Outcomes Matrix
- Roots to Health Survey

ICD-10 Z Codes – Social Determinants of Health

American Hospital Association™
Advancing Health in America

Table 1
ICD-10-CM Code Categories

ICD-10-CM Code Category	Problems/Risk Factors Included in Category
Z55 – Problems related to education and literacy	Illiteracy, schooling unavailable, underachievement in a school, educational maladjustment and discord with teachers and classmates.
Z56 – Problems related to employment and unemployment	Unemployment, change of job, threat of job loss, stressful work schedule, discord with boss and workmates, uncongenial work environment, sexual harassment on the job, and military deployment status.
Z57 – Occupational exposure to risk factors	Occupational exposure to noise, radiation, dust, environmental tobacco smoke, toxic agents in agriculture, toxic agents in other industries, extreme temperature, and vibration.
Z59 – Problems related to housing and economic circumstances	Homelessness, inadequate housing, discord with neighbors, lodgers and landlord, problems related to living in residential institutions, lack of adequate food and safe drinking water, extreme poverty, low income, insufficient social insurance and welfare support.
Z60 – Problems related to social environment	Adjustment to life-cycle transitions, living alone, acculturation difficulty, social exclusion and rejection, target of adverse discrimination and persecution.
Z62 – Problems related to upbringing	Inadequate parental supervision and control, parental overprotection, upbringing away from parents, child in welfare custody, institutional upbringing, hostility towards and scapegoating of child, inappropriate excessive parental pressure, personal history of abuse in childhood, personal history of neglect in childhood, Z62.819 Personal history of unspecified abuse in childhood, Parent-child conflict, and sibling rivalry.
Z63 – Other problems related to primary support group, including family circumstances	Absence of family member, disappearance and death of family member, disruption of family by separation and divorce, dependent relative needing care at home, stressful life events affecting family and household, stress on family due to return of family member from military deployment, alcoholism and drug addiction in family.
Z64 – Problems related to certain psychosocial circumstances	Unwanted pregnancy, multiparity, and discord with counselors.
Z65 – Problems related to other psychosocial circumstances	Conviction in civil and criminal proceedings without imprisonment, imprisonment and other incarceration, release from prison, other legal circumstances, victim of crime and terrorism, and exposure to disaster, war and other hostilities.

Source: American Hospital Association

Utilization of ICD-10 Z Codes in Missouri Hospitals — Baseline

Source: Missouri Hospital Association – Decoding Social Determinants of Health, 2018

Top Z Codes Documented in Missouri

- Homelessness – Z690
- Unemployment – Z560
- Transportation – Z91.89
- Personal history of physical and sexual abuse in childhood – Z62810
- Problem related to primary support group – Z639
- Problem related to social environment – Z609
- Other problems related to social environment – Z608
- Problems related to housing and economic status – Z599

Community Health Issues and Z Codes

Access to Health Care	Heart Disease	Diabetes	Mental Health	Cancer	Substance Use/Opioids
Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)	Problems related to education and literacy, unspecified (Z559)
Insufficient social insurance and welfare support (Z597)	Lack of adequate food and safe drinking water (Z594)	Lack of adequate food and safe drinking water (Z594)	Personal history of physical and sexual abuse in childhood (Z62810)	Occupational exposure to toxic agents in other industries (Z575)	Personal history of adult physical and sexual abuse (Z91410)
Other problems related to housing and economic circumstances (Z598)	Patient's noncompliance with other medical treatment and regimen (Z9119)	Patient's noncompliance with other medical treatment and regimen (Z9119)	Problems related to primary support group, unspecified (Z639)	Patient's noncompliance with other medical treatment and regimen (Z9119)	Problems related to primary support group, unspecified (Z639)
Unemployment, unspecified (Z560)	Patient's other noncompliance with medication regimen (Z9114)	Patient's other noncompliance with medication regimen (Z9114)	Personal history of psychological abuse in childhood (Z62811)	Patient's other noncompliance with medication regimen (Z9114)	Personal history of psychological abuse in childhood (Z62811)

Coding for Social Determinants of Health Updates — Missouri

Source: January 2020 - Z Codes for Social Determinants of Health

Integrating Social Determinants of Health into Care Delivery

Connecting the Dots Using the exploreMOhealth Platform

exploreMOhealth Platform

Source: exploreMOhealth https://exploremohealth.org/

exploreMOhealth

Magnifying Community Health in Missouri

Learn about exploreMOhealth.org during National Public Health Week.
The places where we live, learn, work, worship and play have a profound influence on our health. To improve population health, stakeholders must identify the influence of geography on health factors through meaningful community health data. Many believe that your ZIP code is a more powerful predictor of health than your genetic code.

- Launched — March 21, 2018
- Designed to inform Community Health Needs Assessments with unique and meaningful data sources:
  - County-level data from Missouri Foundation for Health's County-Level Study
  - ZIP Code-level data from Hospital Industry Data Institute and Washington University School of Medicine's Missouri ZIP Health Rankings Project
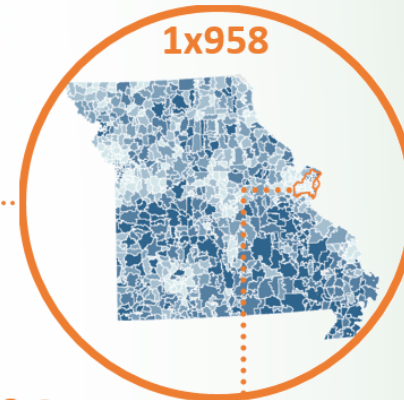 - Open to public

Missouri ranks 41st lowest in the country for women and children's health in 2018.

1x50

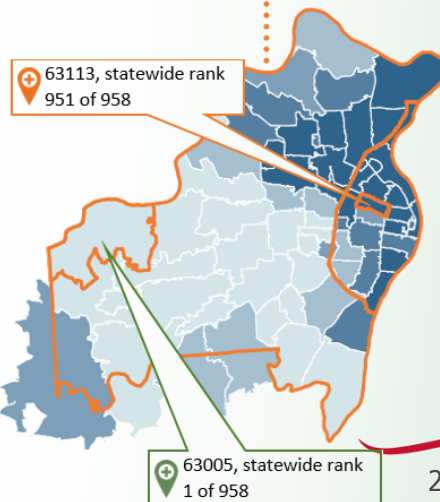Across Missouri's 115 counties, St. Louis County ranks 8th while St. Louis city ranks 113th in 2018.

1x115
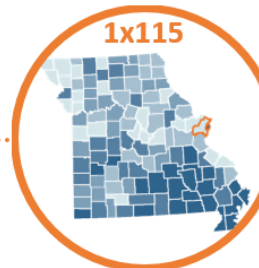
Across Missouri's 958 ZIP codes, St. Louis city & County have one that is ranked the healthiest in the state. and another that ranks 951st.
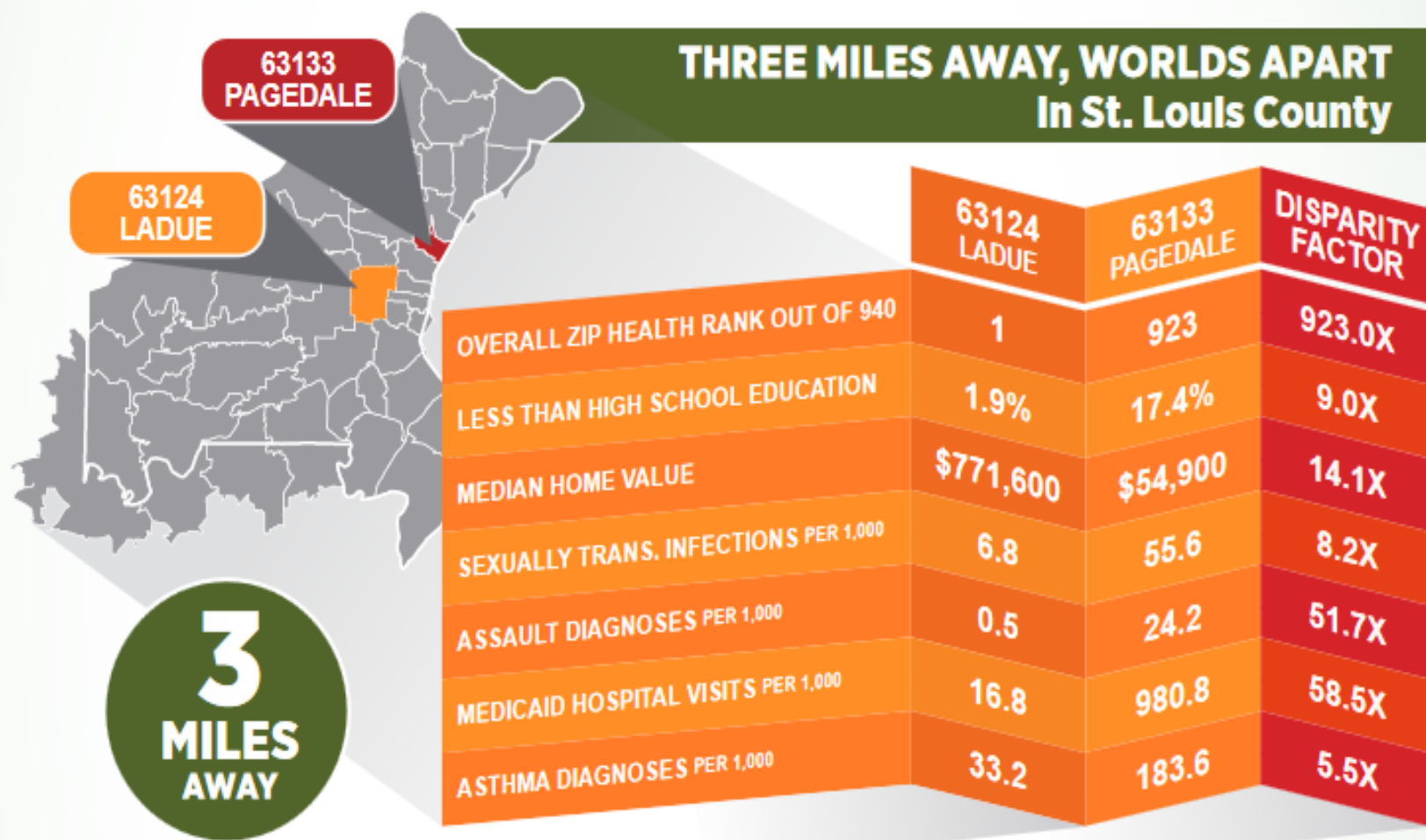
1x958

Here's what we found for St. Louis city & County:

Separated by only 17 miles, 63005 in the St. Louis suburb of Chesterfield and 63113 in North city are worlds apart on health. Here are a few of the factors driving these differences:

	63113 (951 of 958)	63005 (1 of 958)	Disparity Factor
Household Income	$24,430	$158,560	6.5x
Smoking per 1,000	463.8	50.3	9.2x
Obesity per 1,000	86.0	17.6	4.9x
Substance Use Disorder per 1,000	18.8	3.2	5.9x
Teen Pregnancy per 1,000	83.6	0.35	239x
Diabetes Diagnosis per 1,000	266.4	75.5	3.5x
ER Visits per 1,000	971.7	244.0	4.0x

63113, statewide rank 951 of 958

63005, statewide rank 1 of 958

THREE MILES AWAY, WORLDS APART
In St. Louis County

63133 PAGEDALE

63124 LADUE

3 MILES AWAY

	63124 LADUE	63133 PAGEDALE	DISPARITY FACTOR
OVERALL ZIP HEALTH RANK OUT OF 940	1	923	923.0X
LESS THAN HIGH SCHOOL EDUCATION	1.9%	17.4%	9.0X
MEDIAN HOME VALUE	$771,600	$54,900	14.1X
SEXUALLY TRANS. INFECTIONS PER 1,000	6.8	55.6	8.2X
ASSAULT DIAGNOSES PER 1,000	0.5	24.2	51.7X
MEDICAID HOSPITAL VISITS PER 1,000	16.8	980.8	58.5X
ASTHMA DIAGNOSES PER 1,000	33.2	183.6	5.5X

Source: exploreMOhealth, 2019

St. Louis County
Life Expectancy By ZIP Code

55.9 KINLOCH **63140**

91.4 WILDWOOD **63040**

69.7 PAGEDALE **63133**

86.1 LADUE **63124**

Years of Expected Life Span from Birth
- 55.9 - 77.1
- 77.2 - 81.0
- 81.1 - 91.4
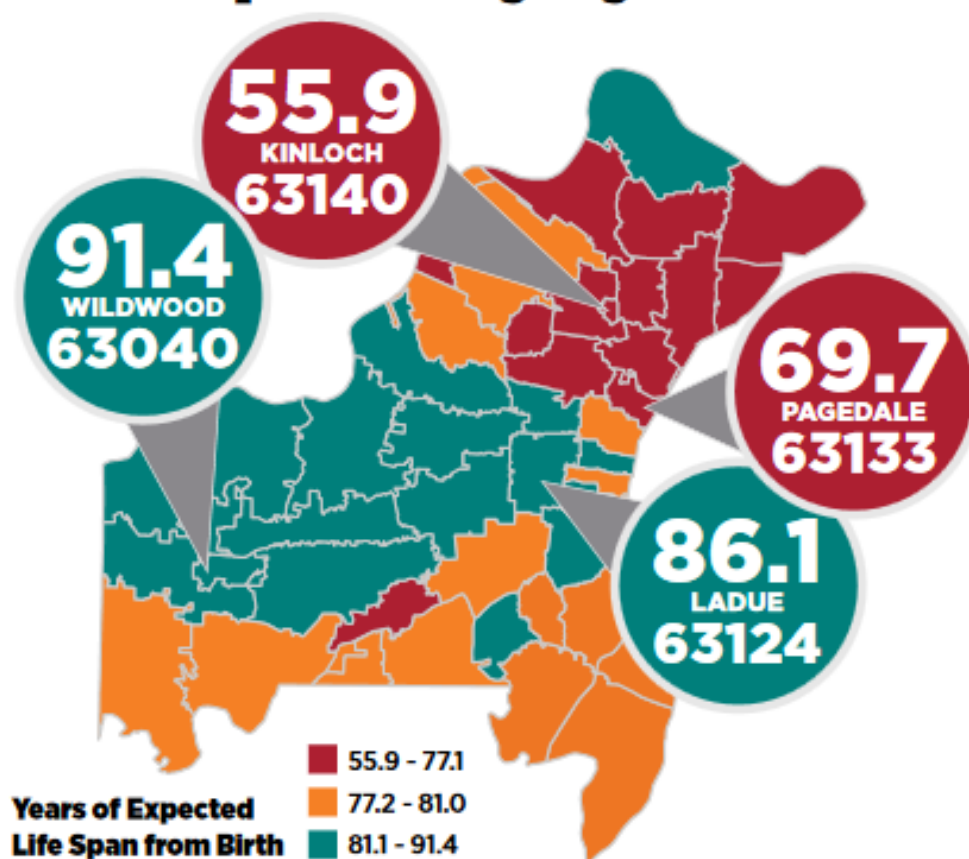
Source: 2010 Decennial Census, U.S. Census Bureau; 2010 MICA, Missouri Dept. of Health & Senior Services; Centers for Disease Control and Prevention; Methodolody Adapted from For the Sake of All (http://forethesakeofall.org/).

FIVE MILES AWAY, WORLDS APART
in Jackson County

64127 WASHINGTON - WHEATLEY

64113 GREENWAY FIELDS

5 MILES AWAY

	64113 GREENWAY FIELDS	64127 WASHINGTON WEATLEY	DISPARITY FACTOR
OVERALL ZIP HEALTH RANK OUT OF 940	6	938	156.3X
LESS THAN HIGH SCHOOL EDUCATION	1.8%	28.9%	16.4X
MEDIAN HOME VALUE	$347,300	$41,100	8.5X
OBESITY DIAGNOSES PER 1,000	18.8	337.6	18.0X
SEXUALLY TRANS. INFECTIONS PER 1,000	6.4	88.5	13.9X
ASSAULT DIAGNOSES PER 1,000	1.3	29.8	22.6X
ASTHMA DIAGNOSES PER 1,000	19.6	254.7	13.0X

Source: exploreMOhealth, 2019

Social Referral Platforms

Social Referral Platforms

- Aunt Bertha
- CharityTracker
- First Call Technology
- Healthify
- Signify Community
- CrossTX

Health Equity

Source: Robert Wood Johnson Foundation

References

- Decoding SDOH: https://www.mhanet.com/mhaimages/Policy_Briefs/Policy Brief_SDOH.pdf

- Deloitte: www.deloitte.com/us/social-determinants-of-health

- The Permanente Journal https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6207437/

- USC-Brookings Schaeffer Initiative for Health Policy https://www.brookings.edu/wp-content/uploads/2018/01/es_20180123_un-burying-the-lead-final.pdf

References

- 2018 Wolters Kluwer Health, In: https://alliedhealth.ceconnection.com/ovidfiles/01269241-201809000-00002.pdf;jsessionid=CA97A3D9445154A1C5EB2EAC0DA341C4

- Health Affairs, Standardizing Social Determinants Of Health Assessments, " Health Affairs Blog, March 18, 2019 https://www.healthaffairs.org/do/10.1377/hblog20190311.823116/full/

References

- Modern Healthcare https://www.modernhealthcare.com/article/20180825/NEWS/180809949/in-depth-hospitals-tackling-social-determinants-are-setting-the-course-for-the-industry

Contact Information

Stephen Njenga, MPH, MHA, CPHQ, CPPS
Director of Performance Measurement Compliance
Missouri Hospital Association
snjenga@mhanet.com
573-893-3700, ext. 1325