ACSM AMERICAN FITNESS INDEX®

Actively Moving America to Better Health











ACKNOWLEDGEMENTS

The ACSM American Fitness Index® is generously supported by a grant from the Elevance Health Foundation. Statements in this report are those of the authors and do not necessarily reflect the views of the Elevance Health Foundation unless explicitly noted.

REPORT AUTHORS

Gretchen S. Patch, MPH, CPH, American College of Sports Medicine
Jessica M. Coffing, MPH, J. Coffing and Associates, LLC
Terrell W. Zollinger, DrPH, J. Coffing and Associates, LLC
Derek A. Zollinger, M.S., J. Coffing and Associates, LLC
Stella L. Volpe, PH.D., RDN, FACSM, ACSM-CEP, Virginia Polytechnic Institute and State
University

ADVISORY BOARD

The American College of Sports Medicine greatly appreciates the guidance of the Advisory Board members:

Chair: Stella L. Volpe, PH.D., RDN, FACSM, ACSM-CEP, Virginia Polytechnic Institute and State University

Carlos Crespo, DrPH, FACSM, University of Illinois, Chicago

Andrea Duran, Ph.D., Columbia University

Jessie Fudge, M.D., FACSM, Kaiser Permanente

David Garcia, Ph.D., FACSM, University of Arizona

Jammie Hopkins, DrPH, Morehouse School of Medicine

Alvin Morton, Ph.D., Merrimack College

Amanda Paluch, Ph.D., University of Massachusetts Amherst

Melissa Roti, Ph.D., FACSM, Westfield State University

Allison Schroeder, M.D., University of Pittsburgh Medical Center

John Sirard, Ph.D., FACSM, University of Massachusetts

Geoffrey Whitfield, Ph.D., U.S. Centers for Disease Control and Prevention

Janet Wojcik, Ph.D., FACSM, Winthrop University

Direct questions and comments on the ACSM American Fitness Index or this report to the American College of Sports Medicine at afi@acsm.org.



July 18, 2023

Dear Partner in Promoting Fitness and Health:

It is our pleasure and privilege to share the results of the 2023 ACSM American Fitness Index (Fitness Index) with you. Now in its 16th year, the Fitness Index has been a successful partnership between the Elevance Health Foundation and the American College of Sports Medicine (ACSM). Together, we've provided the data and expert analysis individuals and communities can use to drive better fitness, health and quality of life.

The Fitness Index ranks the 100 largest cities in the United States based on more than 30 fitness indicators. This provides each city with a detailed view of where they are succeeding and where improvements are needed to ensure they are creating the best environment for health and fitness. Similarly, the Fitness Index shares personal health indicators that individuals can use to assess where improvements can be made in their own lives.

The 2023 Fitness Index shines a bright light on the prevalence of chronic diseases in our country and makes the case for physical activity as an effective way to address them. Six out of 10 American adults have a chronic disease, and four out of 10 have two or more. We also know that chronic disease can contribute to anxiety and depression, exacerbating the growing number of people struggling with mental health. The overall effects of chronic diseases on quality of life are significant, so it is critical that we work together to address this rapidly growing problem.

No city is immune to chronic disease, but fortunately, every city and every person can take positive steps toward creating healthier lifestyles. Physical activity has proven to be an effective tool in reducing the prevalence of many chronic diseases. Getting sufficient physical activity could prevent one in 12 cases of diabetes, one in 15 cases of heart disease and one in 10 premature deaths. We also know that physical activity prevents or reduces the symptoms of anxiety and depression that are often elevated in those diagnosed with a chronic disease.

We also know that food is medicine, and consistent access to nutritious food is an essential part of maintaining health. When we provide our bodies with nutritious foods, we are less affected by diet-sensitive chronic conditions. Proper nutrition, fitness, and health are deeply connected, and when we prioritize all three, we can improve our quality of life.

So, this report is a call to action. We understand the challenges. The American Fitness Index provides the data and the tools to effect change. Now we need to work together and inspire individuals and communities to take the actions necessary to achieve heathier, more rewarding lifestyles.

We congratulate America's 2023 Fittest City, Arlington, Virginia, for leading the way and setting an example for all communities, large and small. This is the sixth year in a row that Arlington has been ranked at the top. The community's consistent devotion to promoting a fitness-friendly environment and healthy living is certainly a model to be followed.

Please review the full report to see where your community is ranked and how it compares to Arlington and others. We invite you to join us in our mission to spark meaningful discussion and advance actions that help communities and their residents be stronger, healthier and more physically fit.

Visit AmericanFitnessIndex.org to learn more.

Sincerely,

Shantanu Agrawal, M.D., Chief Health Officer, Elevance Health

INTRODUCTION

In America, we often view our health as solely our own responsibility; however, nothing could be further from the truth. Collective actions and resources at the community level greatly impact the health choices available to us at the individual level. That's why the 2023 American Fitness Index rankings and data are so important. These rankings provide the latest data on the health status, physical activity behaviors and community assets to measure the fitness of the 100 largest U.S. cities. Using this information, city officials and residents can work together to create more vibrant and physically active communities that promote the health and well-being of all.

IMPACT OF COVID-19

The full impact of the COVID-19 pandemic will not be known for years, possibly decades. However, the complex intersection between viral illnesses like COVID-19, chronic diseases and physical inactivity has been brought to the forefront in the past few years. Early in the pandemic, physicians and researchers identified pre-existing conditions like asthma, diabetes, heart disease, hypertension and obesity, among others, that made people more likely to get very sick from COVID-19. This was especially problematic given six in 10 U.S. adults have at least one chronic disease and four in 10 have two or more chronic diseases.¹





Compounding the pandemic's impact was the widespread problem of physical inactivity, which the U.S. Centers for Disease Control and Prevention (CDC) also listed as a condition that made people more likely to get very sick from COVID-19.² In fact, physical inactivity is just one of three personal behaviors on the CDC's list of at-risk conditions; the others are smoking and substance abuse.

Beyond COVID-19, addressing chronic diseases and physical inactivity is vital to our collective health and economic well-being. Chronic diseases are the leading drivers of the nation's health care costs, comprising 90% of annual health care expenditures. In fact, cardiovascular diseases currently cost \$216 billion in health care, with an additional \$147 billion in lost work productivity per year. Direct and indirect costs are projected to reach \$1.1 trillion by 2035 for cardiovascular diseases alone. 3

Physical activity is one of the most important behaviors people can do to prevent or decrease the severity of chronic diseases, manage symptoms and increase quality of life. Despite this, only half of adults meet national recommendations for aerobic activity, and the trend is not improving over time.

Increasing physical activity through individual effort alone is insufficient for population-level improvements. Large systematic and environmental changes are needed in cities across the country to facilitate walking, biking and other physical activity as part of daily life. Research suggests that to improve physical and mental health, prevent disease and disability, and enhance quality of life for all Americans, we must create a culture that integrates physical activity into our daily lives.

OUR APPROACH

"The ACSM American Fitness Index highlights the health and health habits of communities across the United States. It provides us with a snapshot of how we are doing and identifies what more we can do to make our cities healthier. It has been well-documented that physical activity helps to prevent and/or manage chronic disease. Physical activity also improves quality of life and allows individuals to perform activities of daily living better. The Fitness Index continues to provide data that will help communities increase opportunities for people to be more physically active."

-STELLA L. VOLPE, PH.D., RDN, FACSM, ACSM-CEP, Virginia Polytechnic Institute and State University, President-elect of ACSM, and chair of the ACSM American Fitness Index Advisory Board

The mission of the ACSM American Fitness Index® (Fitness Index) is to increase awareness of how cities are performing across a range of health and community measures to spark meaningful discussion and advance actions to help residents be stronger, healthier and more physically fit. The Fitness Index celebrates healthy, active lifestyles and encourages city leaders to enact policies, dedicate funding and implement local changes to promote these behaviors. We focus on three strategies to support this effort:

- 1. **INFORM.** Report the health, social and economic benefits of physical activity, as well as the policies, funding and infrastructure that promote healthy behaviors.
 - The Fitness Index ranks the 100 largest cities in the U.S. on a composite of health behaviors, chronic diseases and community assets based on the most recent data available. These rankings give city leaders the necessary information to improve their residents' health through local initiatives and policies.
- 2. **ENGAGE.** Inspire city leaders and residents to recognize and celebrate the factors that contribute to their city's culture of health and fitness.
 - The Fitness Index has a strong, 16-year history of widely sharing the annual rankings, as well as success stories from cities making healthy changes through strategic dissemination and communication. Using traditional and social media, ACSM estimates that the Fitness Index has a reach of 600 million people annually to recognize achievements and stimulate local action and advocacy.
- 3. **BUILD.** Expand local capacity and partnerships to implement policy and infrastructure improvements that enable physically active lifestyles for all residents.
 - The Fitness Index is more than an annual ranking of cities. City leaders can access Fitness Index infographics and resources like the Community Action Guide and the Community Fitness Assessment. These tools allow any city, regardless of whether it is in the Fitness Index rankings, to assess its community health and fitness to develop and implement plans for improvement.

The Fitness Index approach aligns with the <u>American College of Sports Medicine's</u> (ACSM) work to address health and fitness through research and education. After all, the journey to a healthier future begins where we live, learn, work and play. The Fitness Index indicators measure aspects of social and physical environments that promote good health for all.

Cities with the highest Fitness Index scores are considered to have strong community fitness, a concept analogous to individuals having strong personal fitness. Cities that rank near the top of the Fitness Index have more strengths and resources that support healthy living and fewer challenges that hinder it. The opposite is true for cities near the bottom of the rankings: These cities have fewer strengths and resources to support healthy living.

Explore the city comparison tool to access all the rankings, scores and data, as well as to learn what your city can do to help residents lead a healthy, active lifestyle: www.americanfitnessindex.org.

2023 RANKINGS

2022-2023 TREND	OVER	RALL RANK	PERSONAL HEALTH RANK	COMMUNITY + ENVIRONMENT RANK
→	1	Arlington, VA	1	1
ĸ	2	Washington, D.C.	7	3
ĸ	3	Seattle, WA	3	12
×	4	Minneapolis, MN	9	5
ĸ	5	Irvine, CA	2	22
¥	6	Madison, WI	6	24
ĸ	7	San Francisco, CA	11	13
→	8	St. Paul, MN	20	4
→	9	Denver, CO	8	35
ĸ	10	Oakland, CA	13	31
¥	11	Portland, OR	17	16
×	12	Atlanta, GA	26	15
¥	13	Chicago, IL	35	8
ĸ	14	San Diego, CA	12	42
¥	15	Boston, MA	40	6
×	16	San Jose, CA	10	45
×	17	Honolulu, HI	21	36
M	18	New York, NY	23	37
×	19	Spokane, WA	30	27
×	20	Santa Ana, CA	5	74
×	21	Austin, TX	14	47
M	22	Buffalo, NY	54	2
×	23	Boise, ID	34	26
×	24	Tampa, FL	29	33
M	25	Lincoln, NE	36	25
×	26	Plano, TX	22	41
×	27	Anaheim, CA	4	90
M	28	Fremont, CA	16	54
7	29	Pittsburgh, PA	59	9
×	30	Aurora, CO	18	52

2022-2023 TREND	OVER	RALL RANK	PERSONAL HEALTH RANK	COMMUNITY + ENVIRONMENT RAN
×	31	Chula Vista, CA	15	69
¥	32	Jersey City, NJ	24	46
×	33	St. Petersburg, FL	51	17
¥	34	Albuquerque, NM	44	29
ĸ	35	Colorado Springs, CO	19	62
→	36	Richmond, VA	57	19
×	37	Newark, NJ	39	40
¥	38	Sacramento, CA	48	28
×	39	Miami, FL	43	34
×	40	Norfolk, VA	62	14
×	41	Virginia Beach, VA	33	44
¥	42	Raleigh, NC	31	48
¥	43	Milwaukee, WI	73	7
×	44	Orlando, FL	49	38
M	45	Charlotte, NC	28	72
¥	46	Omaha, NE	63	23
M	47	Long Beach, CA	37	55
¥	48	Durham, NC	25	82
×	49	Los Angeles, CA	32	65
×	50	Anchorage, AK	38	58
×	51	Houston, TX	27	89
¥	52	Tucson, AZ	61	39
K	53	Cleveland, OH	83	10
¥	54	New Orleans, LA	70	32
×	55	Baltimore, MD	77	20
K	56	Dallas, TX	42	60
×	57	Cincinnati, OH	80	18
×	58	Philadelphia, PA	84	11
×	59	Scottsdale, AZ	45	63
¥	60	Chandler, AZ	46	68

2023 RANKINGS

2022-2023 TREND	OVE	RALL RANK	PERSONAL HEALTH RANK	COMMUNITY + ENVIRONMENT RANK	2022-2023 TREND	OVER	RALL RANK	PERSONAL HEALTH RANK	COMMUNITY + ENVIRONMENT RANK
×	61	Glendale, AZ	56	57	→	81	Corpus Christi, TX	88	50
ĸ	62	Greensboro, NC	55	66	M	82	Irving, TX	71	91
ĸ	63	Phoenix, AZ	47	77	*	83	Henderson, NV	89	53
K	64	El Paso, TX	53	75	¥	84	Toledo, OH	99	30
→	65	Mesa, AZ	50	80	M	85	Nashville, TN	79	87
-	66	Santa Clarita, CA	41	96	ж	86	Chesapeake, VA	82	79
×	67	Jacksonville, FL	69	51	K	87	Detroit, MI	92	49
M	68	Reno, NV	66	59	k	88	Fort Wayne, IN	81	86
×	69	Columbus, OH	78	43	Ж	89	Las Vegas, NV	85	76
×	70	Garland, TX	60	88	K	90	San Antonio, TX	76	95
M	71	Stockton, CA	68	67	N N	91	Kansas City, MO	91	56
×	72	Riverside, CA	65	81	¥	92	Lubbock, TX	90	73
×	73	Arlington, TX	58	93	Ж	93	Indianapolis, IN	86	92
×	74	Fresno, CA	67	85	×	94	Tulsa, OK	95	64
¥	75	Winston-Salem, NC	72	71	ĸ	95	Memphis, TN	94	84
×	76	Laredo, TX	75	70	K	96	North Las Vegas, NV	87	98
M	77	Gilbert, AZ	52	99	¥	97	Louisville, KY	100	61
M	78	St. Louis, MO	98	21	×	98	Bakersfield, CA	93	97
×	79	Fort Worth, TX	64	94	×	99	Wichita, KS	97	83
×	80	Lexington, KY	74	78	→	100	Oklahoma City, OK	96	100



→ ▼ M CHANGE IN OVERALL RANK COMPARED TO 2022

Healthy neighborhoods, schools and homes are the foundation for good personal health. That's why for 16 years the Fitness Index has assessed individual health behaviors and health outcomes, as well as assets and resources provided by the communities, such as parks, playgrounds and recreation centers.

We congratulate Arlington, VA, for earning the #1 overall ranking in the 2023 Fitness Index with a score of 83.1 out of a possible 100. Arlington earned the title of fittest city in America for the sixth time with a balance of healthy behaviors and community assets. Arlington also ranked #1 in both the personal health and community/environment sub-scores. At the indicator level, Arlington ranked among the top 10 cities for 16 of 34 indicators. Arlington had the highest percentage of residents exercising in the last 30 days, the lowest percentage of residents with diabetes, no pedestrian fatalities, and tied for cities with the highest percentage of residents who live within a 10-minute walk to a park.

Leading competitors #2 Washington, D.C., and #3 Seattle, WA, bumped last year's runners-up down to #4 Minneapolis, MN, and #6 Madison, WI. Washington and Seattle both ranked among the top 10 cities for 13 indicators each.

Residents of Washington rank the best in eating their fruits and veggies! They had the highest percentage consuming two or more fruits per day and second for consuming three or more vegetables per day. Despite many people still working remotely, they also take advantage of getting exercise on the way to work, ranking in the top 10 in the percentage biking or walking to work and using public transportation.

Residents of Seattle have the fourth highest percentage biking or walking to work, and the city has done well supporting bikers, as shown by their ranking in the top 10 highest Bike Score. Seattle also values their parks, with the fourth highest park expenditure per capita.

NEW IN 2023 - WELCOME, SANTA CLARITA, CA!

Using U.S. Census population data, the Fitness Index updated the largest 100 cities included in the rankings. As a result, Santa Clarita, CA, was ranked for the first time, replacing Hialeah, FL. Santa Clarita ranked #66 overall, with a score of 45.8, #41 in personal health and #96 in community/environment sub-scores. At the indicator level, Santa Clarita ranked among the 10 best cities for low rates of strokes and pedestrian fatalities, and strong physical education requirements for schoolchildren.



MOVERS & SHAKERS

Two Bay Area cities made big moves in 2023. San Francisco, CA, returned to the top 10 fittest cities at #7 after dropping down the rankings in the past two years. Oakland, CA, broke into the top 10 cities for the first time. Oakland ranked #10 overall, with a score of 69.1, and ranked #13 in the personal health sub-score and #31 in the community/environment sub-score, respectively. Oakland previously ranked #11 in four of the past five years.

Riverside, CA, was the most improved city in the Fitness Index, moving up 18 spots from #90 in 2022 to #72 in 2023. There was little to no change in their community/environment indicators but several large improvements in the residents' personal health indicators, specifically more people consuming fruits and vegetables and fewer days with poor mental health.

DEEPER DIVE - CHRONIC DISEASES & PHYSICAL ACTIVITY

Beyond the overall rankings, the individual indicator data tell a more complete story for each city, both in health behaviors and community assets that impact health outcomes like chronic diseases. The Fitness Index includes six chronic diseases in the annual analysis: asthma, diabetes, heart disease, high blood pressure, stroke and obesity. Digging into the indicator data, it's clear to see there is room for improvement in health outcomes across the country. On average, one-third of the residents in the 100 largest U.S. cities have high blood pressure and/or obesity, representing nearly 20 million residents. These numbers are rising compared to prior to the pandemic, which further exacerbated existing health inequities.

Chronic Diseases	100 CITY AVERAGE	
% with obesity	30.8	
% with high blood pressure	30.2	
% with diabetes	10.7	
% with asthma	9.4	
% with angina or coronary heart disease	3.2	
% with stroke	3.2	

Cities in the top 25 overall generally scored well in health outcomes. However, cities outside of the top 25 took honors for lowest rates of asthma and heart disease, with El Paso, TX, and Bakersfield, CA, leading the way, respectively.

Cities with the highest rates of one chronic disease tend to also have high rates of other chronic diseases and generally rank in the bottom 25 overall. These cities often have low personal health and community/environment sub-scores, indicating residents in these cities may not have the community assets and support to lead a healthy lifestyle.

HIGH BLOOD PRESSURE

RANK	
100	St. Petersburg, FL
99	Detroit, MI
98	Cincinnati, OH
97	Louisville, KY
96	Oklahoma City, OK
95	Memphis, TN
94	Fresno, CA
93	Baltimore, MD
92	St. Louis, MO
91	Wichita, KS

HEART DISEASE

Louisville, KY		
Miami, FL		
Fort Wayne, IN		
Winston-Salem, NC		
St. Petersburg, FL		
Stockton, CA		
Reno, NV		
Memphis, TN		
Buffalo, NY		
Lubbock, TX		

DIABETES

RANK	
100	Laredo, TX
99	Lubbock, TX
98	Louisville, KY
97	Sacramento, CA
96	Memphis, TN
95	Toledo, OH
94	Detroit, MI
93	Riverside, CA
92	Fort Wayne, IN
91	Miami, FL

ASTHMA

RANK	
100	Fort Wayne, IN
99	Fresno, CA
98	Baltimore, MD
97	Philadelphia, PA
96	Louisville, KY
95	Detroit, MI
94	Spokane, WA
93	Toledo, OH
92	Chesapeake, VA
91	Buffalo, NY

OBESITY

RANK	
100	Laredo, TX
99	Norfolk, VA
98	Fresno, CA
97	San Antonio, TX
96	Lubbock, TX
95	Corpus Christi, TX
94	Wichita, KS
93	Kansas City, MO
92	Toledo, OH
91	Louisville, KY

STROKE

RANK	
100	Winston-Salem, NC
99	Bakersfield, CA
98	St. Louis, MO
97	St. Petersburg, FL
96	Lubbock, TX
95	Nashville, TN
94	Detroit, MI
93	Milwaukee, WI
92	Fresno, CA
91	San Francisco, CA

Many chronic diseases result from a handful of unhealthy behaviors, including smoking or tobacco use, unhealthy eating, physical inactivity and alcohol abuse. ^{1,4} While there is no one-size-fits-all solution, physical activity has been shown to be an effective tool in reducing the prevalence of many chronic diseases. ⁵⁻⁸ Getting sufficient physical activity could prevent one in 12 cases of diabetes, one in 15 cases of heart disease and one in 10 premature deaths. ⁹

Despite the overwhelming evidence of the benefits of aerobic activity and strength training to prevent and manage chronic diseases, most adults are still not moving enough. On average, 78.1% of adults in the Fitness Index cities reported exercising in the previous month, but only 50.9% met the aerobic activity guidelines and just 23.7% met the guidelines for both aerobic and strength activities.

In addition to preventing chronic diseases, physical activity prevents or reduces symptoms of anxiety and depression, which are often elevated in people diagnosed with a chronic disease. ^{10,11} In fact, people with diabetes are 20% more likely to report anxiety and two to three times as likely to experience depression than those without. ¹² Anxiety and depression can lead to poor disease management and self-care, including unhealthy eating and decreased physical activity, which can further complicate existing illnesses and lead to new ones.



ACSM & CDC RECOMMENDATIONS:

150 MINUTES

of moderate intensity aerobic activity every week, ~22 minutes per day

2X PER WEEK

muscle-strengthening activities working all major muscle groups

"Everyone can benefit from physical activity — no matter your age, sex, race or ethnicity, health condition, shape or size."

- U.S. Centers for Disease Control and Prevention¹³



PUTTING IT INTO PRACTICE

Improving public awareness of the importance of physical activity in preventing chronic diseases is a crucial step that communities can take toward creating a culture of health. However, this should only be the beginning of a broader strategy that involves all city departments and community partners and includes a health-in-all-policies approach. In addition to parks and recreation and public health departments, transportation, city planning, waste management, and maintenance departments also play important roles in supporting infrastructure that promotes walking, biking and other types of physical activity in daily life.

HEALTH IN ALL POLICIES:

A collaborative approach to health promotion that recognizes the importance of including health considerations when making decisions about things like transportation, education and other areas that impact our communities.¹⁴

CDC's Active People, Healthy Nation, provides evidence-based strategies and resources to encourage physical activity across different sectors, including government, employers, health care and more. Community-level strategies, such as the proven approaches outlined below, have a broader reach and create longer-lasting change than those focused just on individual behavior change interventions.^{15,16}

- Community design for physical activity
- Access to places for physical activity
- School and youth programs
- Community-wide campaigns
- Individual and social supports
- Prompts to encourage physical activity

Chronic diseases and physical inactivity are often rooted in poor social and economic factors that impact health behaviors and outcomes. It is critical that strategies to increase physical activity address the social and political determinants of health and the resulting disparities in health outcomes that affect marginalized communities. All residents must have access to safe, affordable and convenient places for physical activity. Unfortunately, many neighborhoods still lack basic community assets to support a physically active lifestyle. These residents instead face inadequate or missing sidewalks and street infrastructure and fewer places that can be reached by walking or biking from home. Strategies to increase physical activity must include people who have historically been excluded from planning and implementation processes.

Finally, to develop and implement a successful strategic plan for creating a culture of health, city officials should enlist the support of partners from businesses, nonprofit organizations, health care institutions and health care providers, among others. Physicians and other health care providers can be particularly effective spokespersons for the city's strategies and play a unique role in encouraging their patients to become more physically active using ACSM's Exercise is Medicine approach. If communities are to become healthier and more active, community partners like health care providers must be able to refer their patients to safe and accessible places for physical activity.

INTERPRETING THE RANKINGS

It is important to consider both the score and the rank for each city when using the Fitness Index. While the rankings list the cities from highest to lowest score, the scores for many cities are very similar, indicating there may be relatively little real difference among their fitness levels.

For example, Spokane, WA, scored 63.0 overall and ranked #19, while Fremont, CA, scored 60.0 overall and ranked #28. Although Spokane ranked nine positions higher than Fremont in the 2023 Fitness Index, these two cities are actually very similar across most of the indicators, as evidenced by the close scores (3.0 points difference in scores); thus, there is little real difference in the respective community fitness levels of these two cities.

In addition, while one city ranks #1 and another ranks #100, this does not necessarily mean that the highest ranked city has excellent values across all indicators and the lowest-ranked city has the lowest values across all indicators. The ranking merely indicates that, relative to each other, some cities scored better than others. Visit www.americanfitnessindex.org/rankings to compare city indicators and sub-scores using the interactive city comparison tool.

It is also important to remember that a majority of the indicators do not change rapidly, and it will take time for the impact of new initiatives to result in changes to health indicators. While improvements in community and built-environment indicators are important investments, a notable change in the health of residents is expected to slowly, but surely, follow. Additionally, some indicator-level changes from year to year may be due to small sample sizes or sampling variation.

Cities with the best scores, and even those with scores close to the best, are commended for their efforts to improve and maintain the health and fitness of their residents. These cities demonstrated the ability to support healthy lifestyles; thus, their approaches may serve as examples to other cities working to improve similar indicators.

The Fitness Index celebrates the tremendous efforts that all cities put into improving the health and well-being of their residents as we all move toward a healthier future for America.



APPENDIX: METHODS

The complete methods used to calculate the scores, sub-scores and ranks in the Fitness Index were recently published in the *Translational Journal of The American College of Sports Medicine*. ¹⁷ Notable differences between the published methods and the methods used in the 2023 Fitness Index are documented below.

The Fitness Index Advisory Board reviewed the most recent U.S. census data and updated the largest 100 U.S. cities by population. As a result, Hialeah, FL, was removed from the rankings and Santa Clarita, CA, was added for the first time.

Due to insufficient data collection, Florida was not included in the 2021 Behavioral Risk Factor Surveillance System (BRFSS) aggregate dataset. The Fitness Index analysis used data from 2020 for the cities impacted: Jacksonville, Miami, Orlando, St. Petersburg and Tampa.

Playground and tennis court indicators used 2021 data from Trust For Public Land due to unexplained variations in the 2022 data.

Data for park expenditures now includes public and private spending; however, not every city reported private spending. Additionally, the method to adjust the expenditures changed, and as a result of these changes, year-over-year comparisons to spending are not recommended.

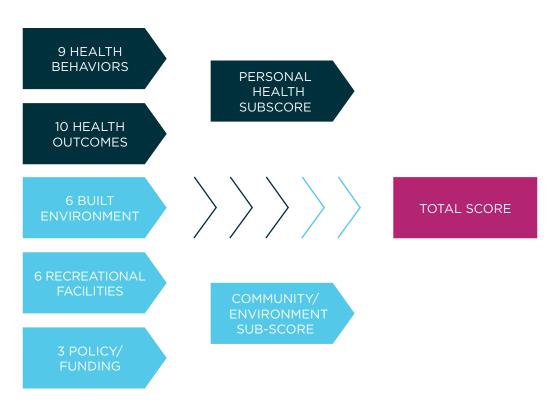


Figure adapted from Zollinger, et al. (17)

APPENDIX: METHODS

PERSONAL HEALTH INDICATORS

Health Behaviors	Data Rar	nge	100 City Average	
% exercising in the previous month	56.5	89.9	78.1	
% meeting aerobic activity guidelines	34.2	65.4	50.9	
% meeting aerobic & strength activity guidelines	15.7	31.0	23.7	
% bicycling or walking to work	0.7	13.7	3.4	
% using public transportation to work	0.0	36.6	3.5	
% consuming 2+ fruits/ day	16.3	37.9	29.5	
% consuming 3+ vegetables/ day	2.9	21.5	14.3	
% sleeping 7+ hours/ day	57.0	78.8	68.1	
% smoking	3.4	24.8	12.6	
Health Outcomes				
% in excellent or very good health	32.5	64.1	52.7	
% with poor physical health in the previous month	20.4	38.2	31.1	
% with poor mental health in the previous month	26.6	62.6	42.2	
% with obesity	14.6	50.0	30.8	
% with asthma	5.3	14.8	9.4	
% with high blood pressure	17.2	42.6	30.2	
% with angina or coronary heart disease	0.0	6.1	3.2	
% with stroke	0.9	9.4	3.2	
% with diabetes	5.8	19.7	10.7	
Pedestrian fatalities/ 100,000 residents	0.0	10.0	2.6	

APPENDIX: METHODS

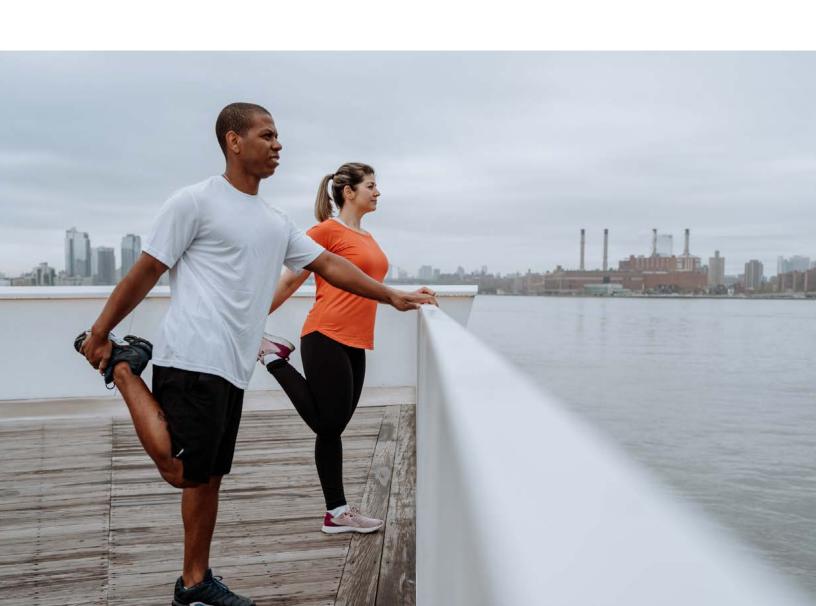
COMMUNITY/ ENVIRONMENT INDICATORS

Built Environment	Data Rang	Data Range			
Air quality index	4.1	99.7	60.9		
Bike Score	29.2	83.5	52.3		
% with food insecurity	6.9	17.6	11.8		
Parks/ 10,000 residents	0.1	18.3	4.1		
% within a 10-minute walk to a park	35.0	99.0	71.5		
Walk Score	21.3	88.7	48.1		
Recreational Facilities					
Ball diamonds/ 10,000 residents	0.0	5.2	1.6		
Basketball hoops/ 10,000 residents	0.8	17.0	3.5		
Playgrounds/10,000 residents	1.0	6.9	2.6		
Recreational centers/ 20,000 residents	0.0	2.4	0.8		
Swimming pools/ 100,000 residents	0.0	10.7	2.3		
Tennis courts/ 10,000 residents	0.2	6.0	1.8		
Policy & Funding					
Local Complete Streets policy	0.0	2.0	1.1		
Park expenditure/ resident	\$21	\$377	\$120		
Physical education requirement	0.0	3.0	2.8		

APPENDIX: DATA SOURCES

The Fitness Index uses a variety of data sources to calculate the annual scores and rankings.

- 2021 American Community Survey U.S. Census
- ▶ 2019-2021 Behavioral Risk Factor Surveillance System, County Data CDC
- 2021 Environmental Protection Agency
- 2020 Map the Meal Gap Feeding America
- 2020 National Highway Traffic Safety Administration
- ▶ 2022 Smart Growth America/National Complete Streets Coalition
- 2021-2022 Trust for Public Land City Park Facts
- 2022 Walk Score and Bike Score
- 2022 National Association of State Boards of Education

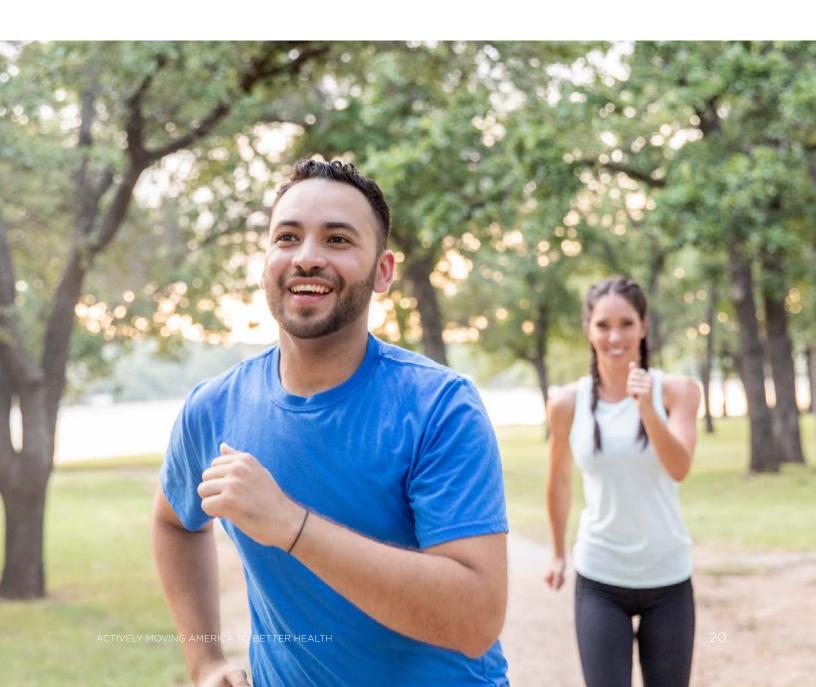


REFERENCES

- U.S. Department of Health and Human Services. About Chronic Diseases: U.S. Centers for Disease Control and Prevention; [updated 2022 Jul 21; cited 2023 Feb 14]. Available from: https://www.cdc.gov/chronicdisease/about/index.htm.
- 2. U.S. Department of Health and Human Services. People with Certain Medical Conditions: U.S. Centers for Disease Control and Prevention; [updated 2023 Feb 10; cited 2023 Feb 14]. Available from: https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html.
- 3. Benjamin EJ, Virani SS, Callaway CW, et al. Heart disease and stroke statistics—2018 update: a report from the American Heart Association. *Circulation*. 2018;137(12):e67-e492. doi:10.1161/CIR.00000000000558.
- 4. Katzmarzyk PT, Powell KE, Jakicic JM, et al. Sedentary behavior and health: update from the 2018 Physical Activity Guidelines Advisory Committee. *Med Sci Sports Exerc*. 2019;51(6):1227-41. doi: 10.1249/MSS.0000000000001935.
- 5. Jakicic JM, Powell KE, Campbell WW, et al. Physical Activity and the prevention of weight gain in adults: a systematic review. *Med Sci Sports Exerc*. 2019;51(6):1262-9. doi: 10.1249/MSS.000000000001938
- 6. Kraus WE, Powell KE, Haskell WL, et al. Physical activity, all-cause and cardiovascular mortality, and cardiovascular disease. *Med Sci Sports Exerc*. 2019;51(6):1270-81. doi: 10.1249/MSS.000000000001939.
- 7. Pescatello LS, Buchner DM, Jakicic JM, et al. Physical activity to prevent and treat hypertension: a systematic review. *Med Sci Sports Exerc*. 2019;51(6):1314-23. doi: 10.1249/MSS.000000000001943.
- 8. Kanaley JA, Colberg SR, Corcoran MH, et al. Exercise/physical activity in individuals with type 2 diabetes: a consensus statement from the American College of Sports Medicine. *Med Sci Sports Exerc*. 2022;54(2):353-68. doi: 10.1249/mss.0000000000002800.
- 9. U.S. Department of Health and Human Services. About Physical Activity Why It Matters: U.S. Centers for Disease Control and Prevention; [updated 2020 May 13; cited 2023 Feb 15]. Available from: https://www.cdc.gov/physicalactivity/about-physical-activity/why-it-matters.html.
- 10. Rethorst CD, Wipfli BM, Landers DM. The antidepressive effects of exercise: a meta-analysis of randomized trials. Sports Med. 2009;39(6):491-511. doi: 10.2165/00007256-200939060-00004.
- 11. Schuch FB, Vancampfort D, Firth J, et al. Physical activity and incident depression: a meta-analysis of prospective cohort studies. *Am J Psychiatry*. 2018;175(7):631-48. doi: 10.1176/appi.ajp.2018.17111194.
- 12. U.S. Department of Health and Human Services. Diabetes and Mental Health: U.S. Centers for Disease Control and Prevention; [updated 2022 Nov 3; cited 2023 Feb 16]. Available from: https://www.cdc.gov/diabetes/managing/mental-health.html.
- 13. U.S. Department of Health and Human Services. Physical Activity Prevents Chronic Disease: U.S. Centers for Disease Control and Prevention; [updated 2020 May 14; cited 2023 Feb 16]. Available from: https://www.cdc.gov/chronicdisease/resources/infographic/physical-activity.htm.
- 14. U.S. Department of Health and Human Services. Office of the Associate Director for Policy: Health in All Policies: U.S. Centers for Disease Control and Prevention; [updated 2015 Oct 7; cited 2023 Feb 24]. Available from: https://www.cdc.gov/policy/hiap/resources/.

REFERENCES

- 15. U.S. Department of Health and Human Services. Strategies to Increase Physical Activity: U.S. Centers for Disease Control and Prevention; [updated 2023 Feb 2; cited 2023 Feb 24]. Available from: https://www.cdc.gov/physicalactivity/activepeoplehealthynation/strategies-to-increase-physical-activity/index.html.
- 16. U.S. Department of Health and Human Services. Physical Activity Guidelines for Americans, 2nd edition: U.S. Department of Health and Human Services; [updated 2021 Aug 24; cited 2023 Feb 24]. Available from: https://health.gov/our-work/nutrition-physical-activity/physical-activity-guidelines/current-guidelines.
- 17. Zollinger TW, Ainsworth BE, Thompson WR, et al. The ACSM American Fitness Index: using data to identify opportunities to support physical activity. *Transl J Am Coll Sport Med*. 2023;8(1):1-11. doi: 10.1249/tjx.000000000000223.



ABOUT US



The American College of Sports Medicine (ACSM) is the largest sports medicine and exercise science organization in the world. More than 50,000 international, national and regional members and certified exercise professionals are dedicated to advancing and integrating scientific research to provide educational and practical applications of exercise science and sports medicine. More details can be found at www.acsm.org.

ACSM is a global leader in promoting the benefits of physical activity and advocates for legislation that helps government and the health community make it a priority. ACSM encourages Congress to support continued funding of parks, trails and safe routes to school, as well as the need for all Americans to meet the physical activity recommendations included in the National Physical Activity Guidelines, and the need for the guidelines to be regularly updated every 10 years.



Elevance Health Foundation is the philanthropic arm of Elevance Health, Inc. The Foundation works to advance health equity by focusing on improving the health of the socially vulnerable through partnerships and programs in our communities with an emphasis on maternal child health; substance use disorder; and food as medicine. Additionally, the Foundation also responds to disasters when our communities need us the most. Through its key areas of focus, the Foundation strategically aligns with Elevance Health's focus on community health and becoming a lifetime, trusted health partner that is fueled by its purpose to improve the health of humanity. The Foundation coordinates with the company's year-round Dollars for Dollars program which provides 100 percent match of associates' donations, as well as its Volunteer Time Off and Dollars for Doers community service programs. To learn more about Elevance Health Foundation, please visit www.elevancehealth.foundation or follow us @ElevanceFND on Twitter and Elevance Health Foundation on Facebook.

THE ACSM AMERICAN FITNESS INDEX® IS AVAILABLE IN ITS ENTIRETY

AT <u>WWW.AMERICANFITNESSINDEX.ORG</u>. VISIT THE WEBSITE TO

COMPARE CITY RANKINGS AND DOWNLOAD RESOURCES.

JULY 2023





