

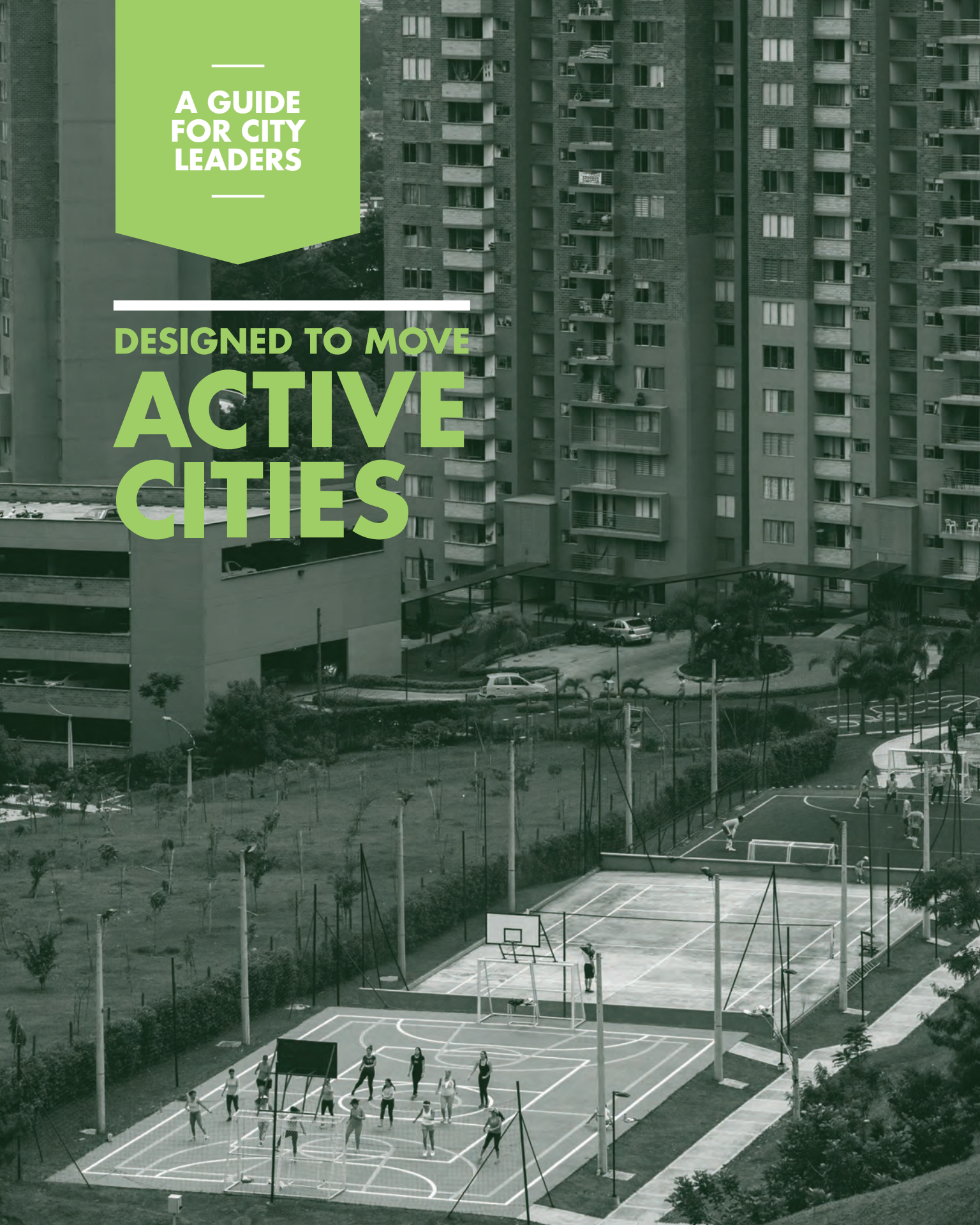
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**A GUIDE  
FOR CITY  
LEADERS**

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**DESIGNED TO MOVE**  
**ACTIVE**  
**CITIES**







SPORT EVENTS CREATE A CULTURE OF PHYSICAL ACTIVITY AND CAN BOOST A CITY'S GLOBAL PROFILE



ASK KIDS AND FAMILIES WHAT KINDS OF ACTIVE SPACES THEY WANT MOST



LAWS THAT SUPPORT ALL TYPES OF WHEELS CREATE A GREAT ENVIRONMENT FOR ACTIVITY



NO-CAR ZONES ARE SAFER, MORE FUN AND INCREASE ACTIVE TRANSPORT AND PARK USERSHIP



CITY PROGRAMS THAT PROVIDE DIVERSE OPTIONS GIVE MORE PEOPLE CHANCES TO BE ACTIVE



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# THIS IS ABOUT MAKING OUR CITIES MORE COMPETITIVE

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A CITY'S ABILITY TO COMPETE DEPENDS ON AN ACTIVE POPULATION. THE RESEARCH IS CLEAR ON THIS. INTEGRATING PHYSICAL ACTIVITY INTO THE PLACES WE WORK, LIVE, LEARN, TRAVEL AND PLAY IS THE ONLY WAY TO ENSURE WE MOVE ENOUGH TO THRIVE.

PHYSICAL INACTIVITY IS BANKRUPTING ECONOMIES AT THE NATIONAL LEVEL, BUT IT IS FELT MOST ACUTELY BY THE WORLD'S CITIES - OFTEN THROUGH NEGATIVE IMPACTS ON THE HEALTH OF PEOPLE, ECONOMIES AND THE ENVIRONMENT. THIS IS BAD NEWS FOR CITIES AND THEIR CITIZENS. THE GOOD NEWS IS THERE'S A SOLUTION.

**OUR BODIES ARE DESIGNED TO MOVE. OUR CITIES SHOULD BE TOO.**

HIGHER LEVELS OF PHYSICAL ACTIVITY ARE ASSOCIATED WITH POSITIVE OUTCOMES FOR MOST OF THE THINGS THAT MATTER TO CITY LEADERS. WHEN PEOPLE MOVE MORE, CRIME, POLLUTION AND TRAFFIC GO DOWN. PRODUCTIVITY, SCHOOL PERFORMANCE, PROPERTY VALUES, HEALTH AND WELL-BEING IMPROVE DRASTICALLY.

CITIES THAT MAKE PHYSICAL ACTIVITY A PRIORITY, CONVERT EXISTING SPACES INTO ACTIVE SPACES, AND DESIGN ENVIRONMENTS FOR PEOPLE TO BE ACTIVE WILL CREATE A LEGACY OF PHYSICAL ACTIVITY. THESE ACTIVE CITIES WILL BE BETTER OFF BY ALMOST EVERY POSSIBLE MEASURE.

OUR PURPOSE HERE IS TO PROVIDE A BLUEPRINT FOR CREATING ACTIVE CITIES, WHATEVER THEIR SIZE AND WHEREVER IN THE WORLD THEY MAY BE.

*Designed to Move: Active Cities* reflects the insights and contributions of over 80 individuals and organizations from around the world. For a complete list of acknowledgments, please see pg. 79

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**The research shows how an active city can be a low-cost, high-return investment** that impacts a lot more than just health. Here, we break down the evidence and demonstrate how a physically active city thrives.

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**Active cities typically do four things really well.** 1) They make physical activity a priority, 2) Use existing resources, 3) Design for people and 4) Create a legacy of lasting change. This section offers practical steps, sample metrics and bright spots from around the world. It provides a starting point for cities to adapt to local context and needs.

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**Here are nine cities—large and small, from economies of all sizes—whose leaders realized action must be taken.** The best news is that they've already come up with replicable solutions.

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**Many experts have created great tools** that offer guidance and technical expertise. We've compiled them here so cities everywhere can get started faster.

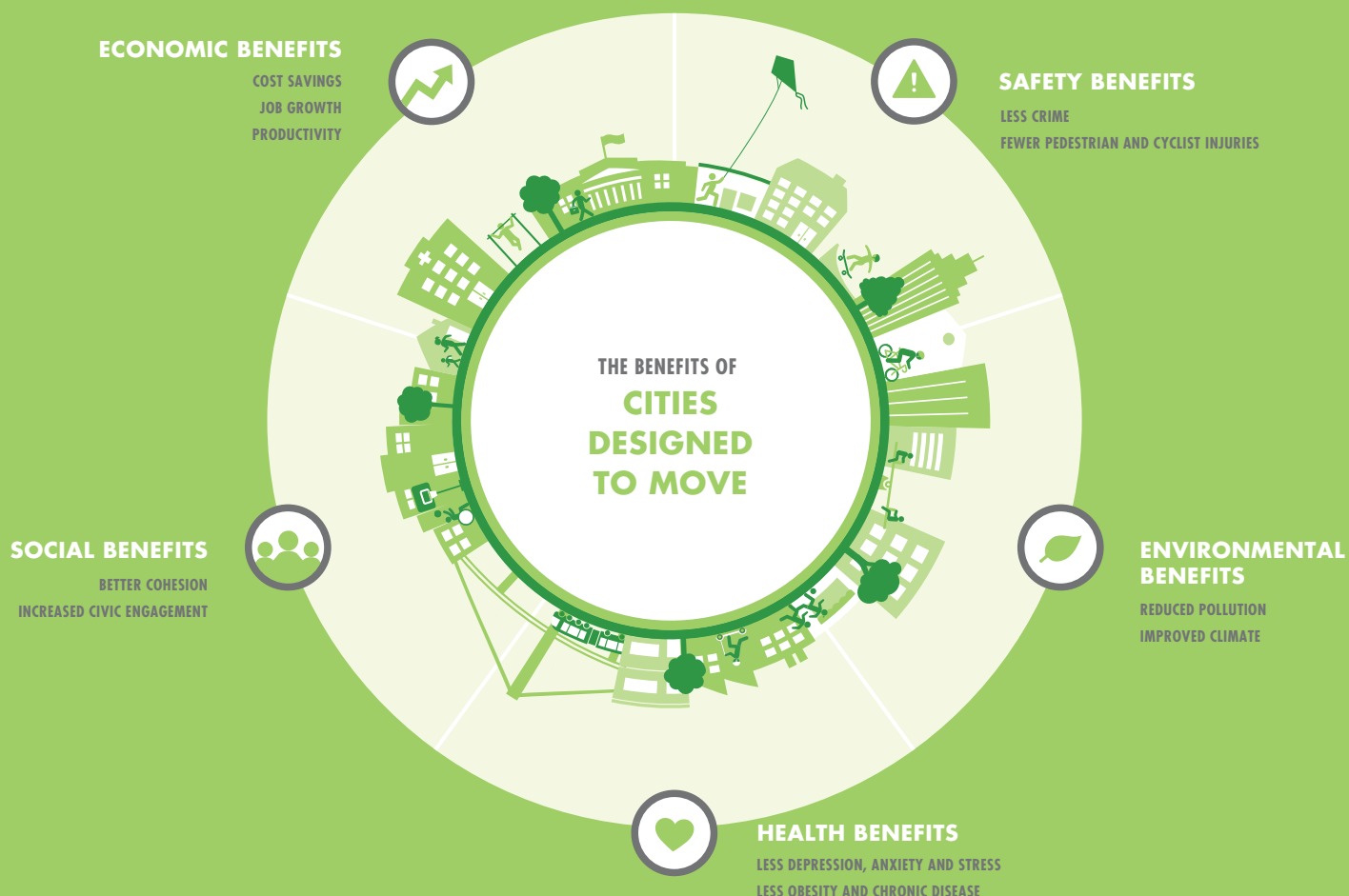
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**This work draws on an established evidence base** and the contributions of many experts. Learn about them here.

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fig 1

## AN ACTIVE CITY IS A COMPETITIVE CITY





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# THE CASE IS CLEAR

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Active cities are an investment in developing greater human, economic, social and environmental capital. The returns across nearly every dimension of civic life are so impressive they simply can't be ignored. This is for those who say that they can't justify the expense of doing something. They're wrong. What they can't possibly justify is the cost of doing nothing.

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# A SOLUTION ANY CITY CAN AFFORD

Inactive cities will lose billions to traffic congestion (US \$4.5 billion in Canada and \$7.1 billion in Australia, for example<sup>1</sup>). They'll give up the substantial tax revenue associated with walkable, bikable cities. Physical inactivity will also cost one week per person per year in lost productivity.<sup>2</sup> Most tragically, physical inactivity will kill some 9 percent of the overall population—as many people as smoking.<sup>3</sup> These are costs no city can afford.

There is no sense in taking on the cost of inactivity when the alternative delivers such a significant return. This section offers a quick glimpse of just a few of the benefits that can be realized when cities are designed to be active. Looking at the health benefits, for example, studies show that consistent stair use can be linked to a 12 to 20 percent reduction in all-cause mortality, including reductions in cardiovascular disease.<sup>4</sup> Other studies have found that redeveloping business areas to promote mixed use and walkability increased employment by 300 percent.<sup>5</sup>

From a city planning standpoint, the evidence presents a strong case to design cities to be more active. In some instances, that can simply be a matter of making the most of existing space—opening up school grounds for public use, for example. Other solutions will involve more substantial changes to urban design and public policy.

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## HIGHLIGHTS FROM THE FACT BASE

When we set out to do this, we knew we'd find a lot of benefits to active cities. After all, physical activity is good for people. What we didn't know is that there's no resource that compiles a holistic set of the benefits. And very little attention is paid to anything outside of physical health. This is likely why the burden of helping people to be active seems to be placed on those responsible for public health. This turns out to be a narrow point of view.

The evidence is clear. Study after study has shown how cities that implement design solutions that enable physical activity (e.g., parks, active transport, mixed use development, etc.) experience far-reaching benefits. This section offers some of the highlights from among the 521 academic findings we reviewed from 17 different countries.

Put simply, the research shows active cities are healthier, wealthier, safer, greener and more cohesive. Not surprisingly, the people who live in them are happier. Changemakers around the world are already beginning to respond to the evidence base. The evidence is strong enough that it should mobilize many more.



fig 2

## THE BENEFITS ARE BIGGER THAN YOU THINK



### ECONOMIC BENEFITS

Research shows that designing cities to be active can have a significant impact on the bottom line. From increased investment and higher property values to greater tax revenue, everyone does better when people move more.

#### WALKING IS GREAT FOR BUSINESS AND SO IS CYCLING

Multiple studies have shown that making places better for walking can boost footfall and trading by up to 40 percent and raise retail rents by 20 percent.<sup>6</sup> Projects in the United Kingdom were shown to increase employment and the number of visitors—each by 300 percent.<sup>7</sup> In another study, a higher Walk

Score® ranking was associated with a 42 percent increase in net operating income.<sup>8</sup>

A conservative estimate of the annual economic impact of cycling in one metropolitan area was \$60 million. The annual economic impact of cyclists is almost nine times as much as the one-time expenditure of public funds used to construct special bicycle facilities.<sup>9</sup> Among 20 different studies on the economic benefits of walking and bicycling interventions, the average benefit-to-cost ratio was 13:1.<sup>10</sup>

#### INVESTMENTS IN TRAILS DRIVE ECONOMIC DEVELOPMENT

In one U.S. city, a \$70 million investment to revitalize a river greenway stimulated

\$2.5 billion in residential, commercial, retail, sports and entertainment projects along the corridor.<sup>11</sup> Likewise, businesses along a trail on the Atlantic coast of the United States attributed 30 percent of their gross revenues to being located along the trail.<sup>12</sup>

#### ACTIVE DESIGN BOOSTS PROPERTY VALUES

In one study, retail properties with a Walk Score® ranking of 80 were valued 54 percent higher than properties with a Walk Score® ranking of 20.<sup>13</sup> Similar findings have been observed across all types of properties. Those with a Walk Score® of 80 were worth 29 percent to 49 percent more than properties with a score of 20.<sup>14</sup> A study

of 15 U.S. cities found homes in more walkable neighborhoods to be worth \$4,000 to \$34,000 more than those in less walkable neighborhoods.<sup>15</sup>

### **CYCLING FACILITIES LOWER HEALTH CARE COSTS**

A modeling study of Portland, Oregon (USA) estimated that by 2040, investments in bike facilities (costing from \$138 to \$605 million) will result in health care cost savings of \$388 million to \$594 million, fuel savings of \$143 million to \$218 million, and savings in the value of statistical lives of \$7 million to \$12 billion.<sup>16</sup>

### **LOCATING SCHOOLS IN NEIGHBORHOODS DELIVERS MASSIVE RETURNS**

The list of economic benefits associated with locating schools in local neighborhoods is exhaustive. For example, the presence of a local school supports higher property values<sup>17</sup> and saves on construction and operating costs.<sup>18</sup> In addition, using the public school as the location for community health centers, swimming pools, libraries or other public services can reduce overall cost of public land assets, capital funds and total operating expenses required.<sup>19</sup>

### **HEALTHY, ACTIVE WORKPLACES ARE BETTER FOR THE BOTTOM LINE**

A review of workplace health programs shows that such programs saved at least \$3 for every \$1 invested.<sup>20</sup> Employees who participate in workplace health programs have lower absentee rates,<sup>21</sup> improved productivity and fewer health-related work limitations.<sup>22</sup> Employers would also be well advised to support active transportation options such as walking and cycling given their relationship to improved productivity. For example, time spent in traffic in Australia's eight capital cities cost nearly US\$ 2.8 billion in lost "business time" or productivity.<sup>23</sup>

## **SAFETY BENEFITS**

Environments that are conducive to physical activity have been shown to be safer in terms of crime rates as well as collisions and injuries.

### **CRIME DROPS ON CAR-FREE STREETS**

In one city, crime decreased by 74 percent when a street running through a park was

converted into a car-free space on weekends.<sup>24</sup> This is consistent with a separate finding that 6 of the first 7 reasons burglars stated for selecting a particular property were related to access routes.<sup>25</sup>

### **GARDENS AND GREEN SPACES DETER CRIME**

In one urban area, apartment buildings with more vegetation were associated with lower rates of homicide, assault, robbery, theft, burglary and arson. Buildings with high levels of vegetation had 52 percent fewer total crimes than buildings with low levels of vegetation.<sup>26</sup> Similarly, eight separate studies found that community gardens increase community cohesion, and reduce graffiti and violence.<sup>27</sup>

### **PEDESTRIAN AND CYCLIST-FRIENDLY DESIGN SAVES LIVES**

Want to reduce the risk of pedestrian-vehicle crashes? Try single-lane roundabouts, sidewalks, exclusive pedestrian signal phasing, pedestrian refuge islands and increased roadway lighting. All of these have been proven to decrease crash rates.<sup>28</sup> Traffic calming typically reduces crash rates by 47 percent on major highways through small urban areas, by 19 percent on corridors in larger suburban areas, and 29 percent overall.<sup>29</sup> There is consistent data showing that marked bike lanes on roads reduce motor vehicle-bicycle collisions by as much as 50 percent.<sup>30</sup>

The news is good for kids, too. In areas where Safe Routes to School are implemented, the annual rate of school-aged pedestrian injury during school-travel hours decreased by 44 percent. Areas without Safe Routes to School saw no such reduction.<sup>31</sup>

## **ENVIRONMENTAL BENEFITS**

Public transportation options have a significant impact on the environment, as do parks and open spaces.

### **URBAN TREES REMOVE POLLUTION AND REDUCE ENERGY DEPENDENCE**

In the United States, trees in urban areas have been estimated to remove 783,000 tons of pollutants every year.<sup>32</sup> Another study estimated that increasing tree cover by 10 percent may reduce the total

energy needed for heating and cooling by 5 to 10 percent.<sup>33</sup>

### **MIXED USE, HIGH-DENSITY DEVELOPMENT CUTS DRIVE TIMES, REDUCING POLLUTION AND FUEL CONSUMPTION**

More compact development can reduce drive times by as much as 40 percent. One study estimated that this could reduce carbon dioxide emissions by as much as 10 percent.<sup>34</sup>

### **WALKABILITY AND BIKEABILITY DRASTICALLY REDUCE DRIVING AND RELATED POLLUTANTS**

In one study, a 5 percent increase in walkability was associated with a 6.5 percent decrease in vehicle miles traveled. This equates to a 5.6 percent decrease in emissions of oxides of nitrogen.<sup>35</sup> In a study of a county in the United States, it was determined that the addition of sidewalks to all roadways would lead to a reduction of vehicle miles traveled equal to 183 million miles, resulting in an annual air pollution cost saving of \$8 million.<sup>36</sup>

### **PUBLIC TRANSPORT IS GREENER TRANSPORT**

Public transportation has been found to produce 95 percent less carbon monoxide, 90 percent less volatile organic compounds, and about half as much carbon dioxide and nitrogen oxide per passenger mile as private vehicles.<sup>37</sup>

### **ACTIVE TRANSPORT TO SCHOOL IS BETTER FOR KIDS AND BETTER FOR THE ENVIRONMENT**

Neighborhood schools produce less emissions than schools located on the outskirts of town. In fact, they can produce a 13 percent increase in walking and biking, and lead to a reduction of at least 15 percent in emissions.<sup>38</sup> A Safe Routes to School program resulted in a 13 percentage point reduction in vehicle drop-offs, and an annual reduction of roughly 1,000 tons of carbon dioxide emissions and 70 tons of other environmental pollutants.<sup>39</sup>

## **PHYSICAL AND MENTAL HEALTH**

It should come as little surprise that physical activity is good for people's overall physical health. The bigger revelation is the fact that

the ways our cities are designed have an enormous impact on people's overall mental health as well.

### **PEOPLE WHO LIVE CLOSER TO PARKS ARE HEALTHIER**

In the case of access to parks and open spaces, the strongest evidence is related to the simple presence of parks and people's proximity to them. Residents who live closer to green space feel healthier,<sup>40</sup> less stressed<sup>41 42</sup> and less lonely.<sup>43</sup> They also experience less anxiety<sup>44</sup> and children diagnosed with ADHD receive as much benefit from walking in a park as they do from leading medication therapies.<sup>45</sup> Living closer to green space is also associated with decreased cardiovascular and respiratory disease mortality in men.<sup>46</sup> Considering the human and economic costs of these diseases, parks begin to look like a particularly attractive investment.

### **WALKABLE/BIKEABLE/GREEN URBAN COMMUNITIES MAKE FOR HEALTHIER, SAFER CITIZENS**

Walkability is associated with a decrease in body mass index (BMI),<sup>47</sup> while urban greenery is associated with less stress,<sup>48</sup> speedier hospital recoveries<sup>49</sup> and improved mental health.<sup>50</sup>

### **ACCESS TO SCHOOL GROUNDS GIVES PEOPLE A CHANCE TO BE MORE ACTIVE**

One of the most impactful things that cities can do to get people moving is to

open up existing spaces. Schools present a great opportunity, but only if people can access the grounds. One study found that schools represented 44 percent of potential neighborhood sites for physical activity. However, the number of locked schools was associated with significantly higher BMI.<sup>51</sup>

## **SOCIAL BENEFITS**

Active environments strengthen communities. They give people a greater sense of cohesion and lead people to have more positive attitudes about their cities.

### **PARKS AND PLAYSPACES STRENGTHEN COMMUNITY TIES AND GIVE KIDS A PLACE TO PLAY**

Parks and playspaces offer enormous social benefits, including decreased feelings of loneliness<sup>52</sup> and a stronger sense of social integration.<sup>53</sup> Moreover, when New York City reconstructed its playgrounds, a 25 percent increase in structured play and a 240 percent increase in unstructured play were observed in children.<sup>54</sup> Given decreasing physical activity levels among young people, this is an especially significant finding.

### **PEOPLE LIKE THEIR CITIES MORE WHEN THEY HAVE ACTIVE TRANSPORT OPTIONS**

Ciclovias (cycling events that close streets to cars for a full day) are great community builders. In fact, nearly 9 out of 10 people

agree that the events cause them to look more favorably on their city.<sup>55</sup> Public transport options also impact how people feel about their cities. One survey found that half of residents who lack access to mass transit are dissatisfied with the lack of availability.<sup>56</sup>

### **CAR-FREE PARKS INCREASE PARK USERSHIP**

Automobile traffic has actually been shown to decrease park use. On the other hand, closing a park road to auto traffic just once a week increased the number of annual visitors to San Francisco's Golden Gate Park (USA) by 2.7 million. Estimates suggest that a park-adjacent road closure in New York City could increase usership by 69 percent.<sup>57</sup>

### **SHARED USE AGREEMENTS MAKE SCHOOLS A NATURAL PLACE TO PLAY AND MOVE**

After a Hawaii (USA) school implemented far-reaching shared use agreements—agreements that allow outside organizations to use school facilities—faculty unanimously reported that it was beneficial to students. They reported that the program provided needed opportunities for physical activity, incurred social benefits (e.g., making new friends), kept students out of trouble and promoted healthy lifestyles.<sup>58</sup>

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# **BEST OF ALL, IT'S WHAT THE PEOPLE WANT**

It turns out that people want to live in cities that are walkable, bikeable and playable. From the surveys and consumer research available, it appears the public is already very much in favor of activity-friendly options. For example:

- Many people are “mismatched” and do not live in their preferred neighborhood type—specifically, people who do not live in walkable neighborhoods would prefer to.<sup>59</sup>
- Nine of ten people prefer that more local government funds be devoted to walking/jogging trails, recreation centers and bike paths.<sup>60</sup>
- If bicycling were made safer from motor vehicle traffic, bicycle riding at least once per week could increase from 8 percent to 40 percent of adults.<sup>61</sup>
- In the United States, 59 percent of people surveyed support walkable communities.<sup>62</sup>
- More than half of Americans prefer neighborhoods that are close to shops, have a mix of incomes and provides public transportation.<sup>63</sup>



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# HOW THE RESEARCH WAS GATHERED AND ASSESSED

U.S.-based Active Living Research (ALR) was commissioned to compile the available evidence on the multiple benefits of designing built environments to support physical activity. Since it is already known that physical activity is hugely beneficial to an individual, ALR's work focused on co-benefits—the economic, safety, health, social and environmental benefits of an active city.

With input from a network of experts, ALR identified several “features” or interventions in several key settings that

provide the most support for physical activity based on their presence within any city. These settings include parks, urban design, transport, schools and workplaces.

ALR staff compiled peer-reviewed and gray literature, and created summaries of all studies reviewed to catalogue each study's design and major research findings. With the exception of public opinion polls (which were included due to their relevance to city leaders' decision-making), studies were graded based on their quality.

To establish the total strength of available evidence and association, ALR created summary scores by summing the weight of evidence from all of the resources reviewed. These were then categorized along a scale ranging from “strong evidence of a negative effect” to “strong evidence of a positive effect.” Practically speaking, this provides an indication of the highest potential areas of investment and related returns.

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## THE EVIDENCE IS STRONG – REALLY STRONG

In all, researchers looked at 521 pieces of evidence. The highest possible evidence score was achieved in 80 percent (24 out of 30) of the areas reviewed compared to only one negative finding. The researchers looked at co-benefits: economic, safety, social, environmental, physical health and mental health. It is worth noting that while there are 6 co-benefits called out in the research, the findings reported here often refer to 5 co-benefits. This is because physical and mental health have been added together for a more streamlined presentation of facts.

A surprising amount of evidence was found. The evidence suggests that activity-friendly design contributes to an increase in physical activity, as well as other health, environmental and economic benefits. Here's how it breaks down by setting:

- Each setting had strong evidence of at least 3 of the 6 co-benefits. **Parks and trails had good to strong evidence of all 6 co-benefits.**
- **Places built for activity have good to strong evidence of economic benefits**—things like increased home value, greater retail activity, reduced health care costs and improved productivity.
- **Every setting observed had strong evidence of environmental co-benefits** based on reduced pollution and carbon emissions.
- **Schools and workplace settings had the most gaps in research**, because active design of these settings has not been studied extensively.
- **Active travel is currently short on evidence of health benefits.** The researchers theorize that this may be because the focus of studies in the

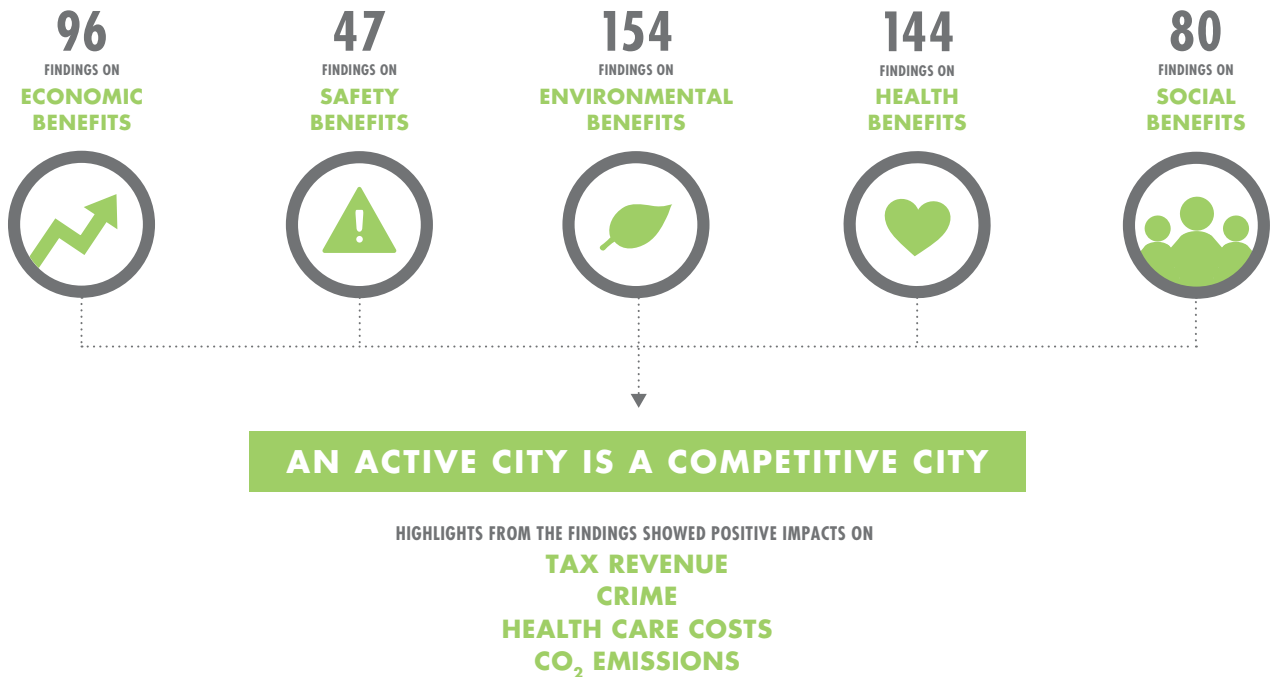
transport field tends to skew toward environmental impacts.

- **There is very little evidence of negative consequences, and a preponderance of positive benefits.** In the urban design setting there was some evidence of negative physical health and injury outcomes, mainly related to high residential density.

For a detailed description of the methodology, please see the report **Co-benefits of designing communities for active living: an exploration of literature** published in IJBNPA.

## THERE'S PLENTY OF EVIDENCE

OVER 500 FINDINGS FROM 17 COUNTRIES HIGHLIGHT THE BENEFITS OF CITIES DESIGNED TO MOVE



## WHERE TO START

Designing communities, transportation systems, schools, parks and buildings that make physical activity attractive and convenient produces a wide range of benefits for communities. The research on the benefits of designing for physical activity in these five settings suggests that they are promising areas for any city. The bottom line: More parks and trails,

walkable community designs, more sidewalks and bike paths, better public transit, and schools and workplaces within walking and biking distance of students and workers improve some of the most significant dimensions of city life. It's important to understand that there's no magic formula. No single environmental feature will solve the problem of

physical inactivity. Some cities support active transportation and active occupations. Others support active recreation and education. An active city supports all of it. All of these things work best when they work together.

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# PROVEN INTERVENTIONS

Through a combination of research and consensus, academic experts identified five “settings” in any city that relate to physical activity. These are: parks, urban design, transportation, schools and workplaces. Focusing investments on activity in these settings have been shown to deliver a solid return and have the best evidence of co-occurring benefits. Here’s what some of the biggest needle-movers look like in each:



**PRESENCE/PROXIMITY:** Within a 10-20 minute walk of every resident.

**PROGRAMS:** Community sports, classes and events are available and promoted to all.

**PUBLIC GARDENS:** Green space exists throughout the city, especially in urban areas.



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**MIXED USE:** Areas with a mix of destinations (residential, commercial, cultural, etc.) in close proximity to where people live and work.

**GREENERY:** The presence of street trees, shrubbery, gardens and other natural landscaping features within an urban environment.

**STREET SCALE DESIGN:** The pedestrian experience is enjoyable and safe. Features include landscaping between streets and sidewalks, buildings that open onto sidewalks (instead of parking lots) and street lights.

**CONNECTIVITY:** A street network with short block lengths and many intersections that provide direct routes between destinations, often in a grid-like pattern. This contrasts to winding streets with few intersections and many cul-de-sacs.





**PEDESTRIAN AND BICYCLE FACILITIES:** Facilities designed for walking and bicycling, including sidewalks, cycle paths, protected bicycle facilities, safe street crossings and bike parking.

**TRAFFIC CALMING:** Street design features that reduce the volume and speed of traffic to improve safety for pedestrians and bicyclists. This includes things like signage, speed bumps, curb-cuts and road diets (reduction in number of street lanes to add pedestrian and bicycle facilities).

**PUBLIC TRANSPORT:** All residents have access to a reliable, safe, and convenient public transportation system. Stops are located near people's homes and workplaces.



**LOCATING SCHOOLS NEAR HOMES OF STUDENTS:** Placing schools near homes gives more students the option of walking or cycling to school.

**RECREATION FACILITIES AT SCHOOL:** Schools have facilities and budgets for things like gymnasiums, playgrounds, and play equipment.

**SHARED USE AGREEMENTS:** Formal or informal agreements between a school district and city or private organizations allowing the community use of school facilities outside of school time can significantly expand a community's options for physical activity.



**BUILDING SITE DESIGN:** Property and building location are designed to promote physical activity through the use of walking/jogging paths, outdoor recreational areas, gardens and connections to public transportation.

**BUILDING DESIGN:** Buildings include stairs that are open and visible from building entrances, exercise equipment, shower and lockers, bicycle parking, and skip-stop elevators (elevators that don't stop on every floor).

**PHYSICAL ACTIVITY PROGRAMS/POLICIES:** Employers promote physical activity through exercise classes, discounted gym membership, active transportation incentives, non-parking cash-out programs and point-of-decision prompts (e.g., signs encouraging stair use and walking meetings).





ACTIVE DESIGN MAKES MOVING THROUGHOUT THE CITY EASIER AND MORE ACCESSIBLE TO EVERYONE





# 2

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## MAKING CITIES ACTIVE

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An active city is a city with a chance. It's a city with a future. It's a place that's designed for people to move throughout their day-to-day lives. Not just here or there, but everywhere. This requires an audaciously bold vision, completely rethinking the way things are done and an intentional course of action. Here's a blueprint to help city leaders get it done. It is intended for mayors, city managers, transport and public health officials, business community, private citizens, and urban planners, NGOs and anyone who's working to make cities thriving places to live.



# HOW TO BECOME AN ACTIVE CITY

The case for active cities is strong. Based on the evidence and the experiences of thriving active cities around the world, we've identified four things active cities do really well: prioritize physical activity, use existing resources, design for people to be active and plan on movement for the long-term.

Whether you're looking to take the first step or launch a complete transformation, this section offers up the resources to get started. Keep in mind that these aren't in priority order, nor are they sequential. All four are critical success factors, but they'll require different levels of effort and resources.

Certain aspects will cost more or take more time than others. In some cases, there are relatively low-cost, simple solutions with big impact. These are a great place to start. And from there, establish your goals. We've suggested some metrics here, which can be adapted to local context and linked to measurable, achievable, realistic improvements over time.

fig 4

## FOUR CALLS TO ACTION FOR ACTIVE CITIES





# PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

Designing a physically active city starts at the top, because ambitious plans need ambitious leaders. Championing an active city will require a few key commitments:

**VISIBLE LEADERSHIP:** Talk about it in speeches, walk or bike to work, make family time active time, make the Mayor's Office an active workplace, work with other employers and business leaders, celebrate success.

**PLAN FOR IT:** Build physical activity into the city's master plans, administrative actions and incentives across all policy areas; hold people accountable.

**ALIGN CITY DEPARTMENTS:** This isn't just a job for public health or the parks department. It's also the role of (and in the interest of) transport, planning, education, culture, safety, economic development and many others. The most effective active cities get these departments working together.

## CHECKLIST

### VISIBLE LEADERSHIP:

The mayor and other city leaders talk about physical activity publicly



### VISIBLE LEADERSHIP:

The people who work for the city have the chance to be active



## PRACTICAL STEPS & IDEAS

### REGULARLY MAKE THE CASE FOR PHYSICAL ACTIVITY:

People need to hear about why and how their city is physically active. The case needs to be made from the highest levels of leadership including city-specific activity levels and their impacts, and what the city is doing to combat the problem.

### MAKE CITY WORKPLACES ACTIVE WORKPLACES:

One of the most effective ways to provide people with an opportunity to be active is to create workplaces that enable physical activity. City workplaces are no exception. Start with walking meetings, time and space for exercise, health insurance credits for physical activity and wellness programs, accessible stairs, standing desks, treadmill desks, incentives for active transport, etc. Employees will be happier and healthier, and an increase in productivity and a decrease in absenteeism are likely.

## SAMPLE METRICS

- Frequency in which physical activity is mentioned or committed to in mayor's or other city leaders' speeches
- # of physical activity public awareness campaigns that are supported by the city
- Changes in expectation/demand by the people around physical activity
- % of employees who walk, bike or ride public transport to work
- % of people who get 30 minutes of moderate-to-vigorous physical activity daily (60 minutes for children)
- Fitness or recreation facilities usage rates
- Health care spending trends—e.g., reduction in costs for diseases associated with physical inactivity

### PLAN FOR IT:

Physical activity goals are part of a broader vision. Implementation steps are built into the city's plans.



### BUILD PHYSICAL ACTIVITY INTO THE MASTER PLAN:

Whatever it might be called (corporate priorities, development plan, city plan, municipal strategy, etc.), nearly all cities have some version of a master plan. This is a framework that is updated every decade or so to guide the growth and direction of a city. It typically includes goals, policy considerations and budgets for the various city agencies. In addition, cities typically have ordinances and guidelines for construction, contracting, permitting, etc. Physical activity goals and policies such as Complete Streets that consider the needs of all users and places to play can be built into all of these at minimal cost relative to the return. To take the next step, check out [How to Create and Implement Healthy General Plans](#) by Changelab Solutions.

- % of city budget dedicated to efforts that increase physical activity levels
- # of built environment elements related to physical activity included in general plans, transportation and development plans (cycling paths, sidewalks, etc.)
- # of studies measuring the impact of physical activity (e.g., economic impact for city)
- Increase in the percentage of transport investments allocated to active travel

### ALIGN CITY DEPARTMENTS:

There is a coordinated approach for integrating physical activity across sectors with accountability and incentives built in



### ENGAGE A CROSS-AGENCY COORDINATOR:

Cities have dozens of separate departments and it's unrealistic to think they'll be able to collaborate without a little support. Dedicated staff are needed to bring multiple departments together to promote city-wide physical activity goals. Several cities throughout the world have already done this, with remarkable results. Better yet, it doesn't have to cost that much.

- # of cross sector task force meetings to move activity-friendly built environment projects forward
- # of physical activity-related milestones reached overall and by department
- % of resources dedicated to cross agency coordination around physical activity

## BRIGHT SPOTS



### OKLAHOMA CITY (USA)

In 2007, Mayor Mick Cornett realized he was obese. After making his own lifestyle changes including regular exercise, he realized many of his fellow citizens would do well to do the same. In a bold statement of visible leadership, Mayor Cornett announced a goal for the city to lose one million pounds. He launched [thiscityisgoingonadiet.com](#), a resource that allows users to access information and monitor and register their progress as a group.

With public support growing, a 2009 referendum approved a one-cent sales tax to fund a 70-acre urban park, hundreds of miles of sidewalks and trails, a streetcar system, and health and

wellness centers. Private businesses have also provided loans to create more walkable downtown streets and add bike lanes and recreation facilities. In total, the effort marks a \$777 million, 10-year effort to redesign infrastructure to encourage even more activity.

By 2012, the city met its goal of losing one million pounds, and the changes that have been made are set to last. As Cornett says, "The culture of the community has shifted."<sup>64</sup>

### SOROCABA (BRAZIL)

A four-year, city-led effort focused on increasing physical activity rates in the city of Sorocaba has had a significant positive effect on citizens' physical

health. The plan includes infrastructure changes like walking and cycling tracks, parks and recreation facilities that are accessible to all, along with a public awareness campaign called *Agita* (Move).

### THE RESULTS ARE ASTOUNDING:<sup>65</sup>

- Hospitalizations for stroke were reduced by 50 percent
- Hospitalizations for type 2 diabetes were reduced by 57 percent
- Physical inactivity was reduced by more than two-thirds (from 9.6 percent to 2.7 percent)
- Sao Paulo, the state in which Sorocaba is located, is estimated to have saved US\$310 million a year from its health care budget



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# TOOLS ANY CITY CAN USE: WHAT TO LOOK FOR IN A CROSS-AGENCY COORDINATOR

The type of staff and their scope of responsibility will depend greatly on the size and set-up of an individual city. In some cities, staff are located within the health department. In others, they are situated in the mayor's office or planning departments. Typically these individuals have backgrounds in public health, transportation or urban planning—and occasionally all three. Here's how a few cities have approached the role.

**NEW YORK CITY'S (USA)** health department hired a Built Environment Director to coordinate with different city government departments on projects to improve physical activity. The Built Environment Director is a physician and epidemiologist with previous experience working with the US Centers for Disease Control and Prevention, and state health departments on built environment and physical activity issues.

As New York's efforts to become an active city expanded, additional staff were brought in for coordination and implementation. Each project was assigned one junior staff (most often a recent Master's graduate in public health or planning) reporting to the Director.

In **NASHVILLE, TENNESSEE (USA)** the Mayor's Office hired a Director of Healthy Living with a background in urban planning and transportation. As a former multi-modal transportation coordinator and staffer for the Mayor's Bicycle and Pedestrian Advisory Committee, the Director of Healthy Living brings together various departments on livability, active transport and health and wellness.

In **HALIFAX (CANADA)** an urban planner was hired by the Capital District Health Office, to coordinate with planning and transportation professionals who work with the Halifax Regional Municipality to develop policies that support and foster walking, cycling and other forms of physical activity. Across several Canadian municipalities just starting this work, junior staff (with backgrounds in public health or planning or both subjects) are being hired by the regional public health office, with additional support being provided by an existing senior manager in-house and a senior-level expert consultant.

# TOOLS ANY CITY CAN USE: TALKING POINTS FOR CITY LEADERS

The following points are a quick summary of the problem and solutions, along with brief facts and actions. They can be used as part of a supportive argument to be built into talking points and speeches as necessary.

## 01 THE PROBLEM: PHYSICAL INACTIVITY

### PHYSICAL INACTIVITY COSTS CITIES

**MILLIONS FINANCIALLY:** Physical inactivity is connected to lost productivity, higher rates of absenteeism and higher health care costs.

### PHYSICAL INACTIVITY COSTS CITIES

**MILLIONS OF LIVES:** Physical inactivity is linked to a variety of chronic diseases—everything from diabetes and heart disease to cancer and stroke. Today, it kills more people than smoking.

## 02 THE SOLUTION: AN ACTIVE CITY

Creating every possible opportunity for people to move actively throughout our city makes this a better place to live, work, travel and play.

### AN ACTIVE CITY IS A SAFER CITY

- Crime drops 74 percent when a street goes car-free on weekends.<sup>66</sup>
- Marked bike lanes reduce vehicle-bike collisions up to 50 percent.<sup>67</sup>

### AN ACTIVE CITY IS A MORE PROSPEROUS CITY

- Active city design increases property values, tourism, business revenue and economic investment.
- Creating more walkable environments has been shown to boost employment and visitors up to 300 percent; it increases trading as much as 40 percent and retail rents as much as 20 percent.<sup>68</sup>

### AN ACTIVE CITY IS A MORE SUSTAINABLE CITY

- \$46 million in sidewalks returns health & air quality benefits of \$846 million.<sup>69</sup>
- Public transport produces 95 percent less carbon monoxide as cars.<sup>70</sup>
- Bogota (Columbia), Johannesburg (South Africa), Mexico City (Mexico): massive reductions in pollutants are associated with with bus rapid transit investments.<sup>71</sup>

### AN ACTIVE CITY IS A MORE APPEALING CITY

- Going car-free could increase park usership 69 percent.<sup>72</sup>
- Nearly 9 in 10 people say cycling events make them look more positively on their city.<sup>73</sup>
- Every 10 minutes of commuting cuts involvement in community by 10 percent.<sup>74</sup>

### AN ACTIVE CITY IS A HEALTHIER CITY

- Living near green space decreases the odds of stress by 30 percent.<sup>75 76</sup>
- Stair use can result in a 12-20 percent reduction in all-cause mortality.<sup>77</sup>
- Children with ADHD receive as much benefit from walking in a park as they do from leading medication therapies.<sup>78</sup>

03

## HOW WE'RE GOING TO GET IT DONE

### WE'RE GOING TO MAKE PHYSICAL ACTIVITY A PRIORITY

- That means building it into city plans and ordinances.
- It also means creating opportunities for our city workers to get moving so they can set the example for everyone else.

### WE'RE GOING TO LOOK AROUND OUR CITY AND SEE IF THERE ARE PLACES WE CAN MAKE MORE ACTIVE

- Things like keeping parks open later and unlocking stairwells.
- Let's rethink the rules. When signs tell people not to play, we'll ask why.

### WHEN WE DESIGN, WE'LL DESIGN FOR YOU

- We'll ask you what you want and need to choose more active options. Better bike parking? More sidewalks in a particular neighborhood? Different transit connections?

### WE'RE GOING TO MAKE CHANGES THAT LAST

- This isn't about me, it's about you. And it's about making changes to policy and infrastructure for generations to come.
- We'll take a good look and see where the most need is—places where people have the fewest opportunities to get moving—and start there.





**ACTIVITY FRIENDLY TRAFFIC LAWS MAKE MOVING SAFER FOR EVERYONE**



**OPENING UP WATERWAYS TO DIFFERENT KINDS OF MOVEMENT EXPANDS PEOPLE'S WAYS THEY CAN GET ACTIVE**



**MAKING RECREATION A PRIORITY ENGAGES MORE CITIZENS**



**WALKING AND CYCLING PATHS ALONG WATERWAYS BOOSTS TRADING, RETAIL REVENUE AND PROPERTY VALUE**



**SAFE, ACCESSIBLE, BUS RAPID TRANSPORT, INCREASE OPPORTUNITIES FOR ACTIVE TRANSPORT**



# 10 QUICK WINS



## 01 TURN THE LIGHTS ON AND KEEP PARKS AND SPORT SPACES OPEN LATE

Phoenix, Arizona (USA) saw a drastic reduction in juvenile crime when they introduced late-night basketball in the summer.<sup>79</sup> Of course, open spaces need to be well-lit and offer appropriate security presence. Phoenix achieved this for a cost of just 60 cents per participant.

## 02 OPEN UP SCHOOL RUNNING TRACKS, COURTS AND FIELDS TO THE PUBLIC

Making these tax-supported resources available to the public provides more opportunities for community members to get active. A secondary school in the city of Palm Springs, California (USA) makes the running track, sports field and stadium stairs available throughout the day. To accommodate student use, clear guidelines are posted regarding which areas (e.g., outside running lanes) are available for the public.

## 03 BE A ROLE MODEL. WALK OR BIKE TO WORK, TAKE THE STAIRS, WORK OUT AND HAVE ACTIVE MEETINGS

City leaders can be high-profile champions and encourage citizens to be active. All of the case studies in Active Cities feature mayors who are active themselves. In addition, Oklahoma City, Oklahoma (USA) features a mayor whose personal health goals became the catalyst for citywide transformation.



04

**HAVE ACTIVE MEETINGS**

People get sluggish and distracted when sitting for long periods of time. Whenever possible, make meetings active by taking a walk during the discussion or encouraging people to stand up and move around.

05

**REDUCE SPEED LIMITS TO 20 MPH**

There is no debate that lower speed limits in urban areas and residential zones are safer for pedestrians and cyclists. Studies have shown that serious injuries or death resulting from automobile-pedestrian accidents are up to nine times higher in areas with 30 mph speed limits versus 20 mph.<sup>80</sup> Bristol (UK) has measured attitudes about lower speed limits and found that far more motorists support them than oppose them.<sup>81</sup>

06

**REQUIRE STAIRS IN PUBLIC BUILDINGS AND NEW CONSTRUCTION TO BE OPENED UP FOR PUBLIC USE**

Stairs are more than a fire escape. They're a great, healthy way to get from one floor to another, but many buildings don't require them to be opened up for daily use. This could have a major health benefit. Studies show that consistent stair use can be linked to a 12-20 percent reduction in all-cause mortality, including cardiovascular disease.<sup>82</sup>

07

**MAKE EXISTING RESOURCES LIKE TRAILS AVAILABLE FOR USE IN ALL KINDS OF WEATHER**

Red Deer (Canada) plows portions of its walking trails in winter and allows the snowshoeing club to maintain other sections to ensure people are able to use the trails during snowy winters.

08

**ASK CITIZENS WHAT THEY NEED TO BE MORE PHYSICALLY ACTIVE**

Many of the cities profiled here have asked people for their opinions. For example, in Buenos Aires (Argentina), people were asked what would encourage them to cycle more. They wanted protected lanes and safe bicycle parking. The city responded and now far more people choose biking for their commutes.

09

**PUT CYCLING AND WALKING ROUTE MAPS ON YOUR WEBSITE AND IN CITY APPS**

Many cities offer information about walking, running and cycling routes on their websites. Make these available as mobile apps for residents and visitors to use in real time. For example, Sydney (Australia) has created "curated walks" to guide people through a walking tour of the city's cultural attractions.<sup>83</sup>

10

**LET PEOPLE EASILY APPLY FOR STREET-CLOSING PERMITS FOR NEIGHBORHOOD PLAY EVENTS**

Active cities are often fun cities and street-play events are one more way to make physical activity enjoyable. For example, Bristol (UK) has a system in place to allow ordinary citizens to apply for a "Temporary Play Street Order" that closes streets to play on a one-time or regular basis. Families love the option and it's helped to strengthen the city's reputation as a playable city.

# SOLUTIONS TO REPLICATE FROM AROUND THE WORLD

Cities of all sizes are learning from each other and adopting some of the same solutions to thrive. Following are a few of the most widely implemented solutions:

## BIKE SHARES

Public access to bikes—rentable by subscription or by the day or hour—can boost active transport opportunities for all.



## MOTOR-FREE STREETS

Want to increase activity, safety and retail traffic? Open the streets to non-motorized transport exclusively.



## FITNESS IN PUBLIC PARKS

Providing public spaces to work out can be inexpensive, fun and accessible to all.



## MARKED BIKE LANES AND VISIBLE LANE DIVISIONS

Clearly marked lanes help everyone to share the road and makes the transport experience better for everyone. To make things even safer, install dividers between cycle and automobile lanes.



## OPEN STREET EVENTS

Events that open streets up once a week to motor-less fun—walkers, cyclists, skaters and runners—improve people’s outlook on their city.



## INTEGRATING ACTIVE TRANSIT TO CITY SYSTEMS

To encourage even more cycling, connect transit stops to trails and bike paths, ensure sidewalk availability and make room for bikes on public transport.



## POCKET PARKS

Small, unused pieces of land in urban areas can make ideal recreational spaces in urban environments.







# MAKE EXISTING RESOURCES ACTIVE RESOURCES

We hear a lot about mixed use areas that combine residential, retail, natural, industrial and cultural functions. Studies show these areas are safer, more desirable, environmentally friendlier, more highly valued and more conducive to physical activity. But this isn't just about where people live.

Not everything has to be created from scratch. Every city has existing resources that can be maximized to encourage and enable physical activity. These include physical spaces, as well as the people and organizations that influence citizens.

**RETHINK RESOURCES:** There are plenty of places throughout any city that can be opened up to activity. Maybe it's a town square that can host group events. Perhaps the traffic lanes are already being repainted so bike lanes would be a negligible-cost addition. Or open up schools with a field and running track for public use.

**INNOVATE AND INTEGRATE:** Physical activity isn't just about parks and gyms. Look for the unexpected solutions and places to provide options in the community. Cities have re-purposed everything from abandoned parking lots and farm fields to

industrial buildings. Clean up and paint a dilapidated street corner to create a pocket park. Install swing sets at bus stops. Repurpose underground thoroughways beneath freeways to be used for bicycles and pedestrians.

**USE LOCAL INFLUENCERS:** Doctors, local athletes, teachers and principals, community leaders, business leaders, police and firefighters ... all of these community influencers are people who can inspire physical activity and speak in favor of creating more active spaces.

## CHECKLIST

### RETHINK RESOURCES:

Parks are open late to accommodate different user groups



### RETHINK RESOURCES:

Take a look at existing traffic laws



## PRACTICAL STEPS & IDEAS

### UNLOCK THE GATES, TURN ON THE LIGHTS:

Parks, playgrounds and exercise facilities are waiting to be used for an extremely low cost.

### SLOW DOWN AND SHARE THE ROAD:

Reduced traffic speeds make physical activity safer and more enjoyable for everyone. Laws that give rights to pedestrians and cyclists create an environment that supports active transport.

## SAMPLE METRICS

- % of public parks open to public after the workday (6 p.m.)
- % of public parks open to public after sundown
- % of roadways with 20 mph speed limits
- Levels of driver compliance with 20 mph
- # of roadways where traffic calming has been introduced

## CHECKLIST

### RETHINK RESOURCES:

Schools can be used by students, teachers AND the community



### RETHINK RESOURCES:

Stairwells in buildings are typically open and aesthetically pleasing



### INNOVATE AND INTEGRATE:

Abandoned areas such as parking lots or once industrial zones are converted and maximized for physical activity opportunities



### INNOVATE AND INTEGRATE:

There is a plan and efforts in place for Complete Streets



### USE LOCAL INFLUENCERS:

Partnerships with key influencers are put in place to raise awareness and encourage physical activity



## PRACTICAL STEPS & IDEAS

### CHAMPION SHARED USE:

When public spaces like schools are available for multiple uses, cost savings are realized and the entire community benefits. ChangeLab Solutions has a set of resources available to get started.

### A LITTLE BIT OF PAINT AND STAIR PROMPTS CAN GO A LONG WAY:

One of the biggest deterrents to stair use is their visibility—either that they have none or they aren't appealing. Opening up the stairwells, adding painted markers to guide people's eyes toward them and signage pointing out the location of stairs and encouraging their use can make a huge difference. For example, signs that say "Burn calories, not electricity. Take the stairs!" can be distributed by the city and have been shown to significantly increase stair use.<sup>84</sup>

### INCENTIVIZE BUSINESSES AND OTHER STAKEHOLDERS TO MAXIMIZE USE OF SPACE:

Planning for the city includes mixing different types of land uses in an area so that people live close – and can walk – to schools, work, parks, food premises and other shops. Consider how codes, guidelines and policies can be used to maximize use. Include built environment factors that consider physical activity in revitalization projects.

### IMPLEMENT COMPLETE STREETS POLICIES:

More and more cities are prioritizing streets that safely address the needs of all users including pedestrians, bicyclists and transit riders. Complete Streets policies consider the needs of the local community in all development—e.g., speed limits, placement of crosswalks and traffic lights, sidewalk and protected bike path construction, etc.

### ENGAGE LOCAL HEROES, CELEBRITIES AND RESPECTED VOICES:

Local athletes and sports teams, television personalities and community voices like school principals, local coaches and business owners can be powerful voices to champion physical activity. In addition, doctors can be engaged to speak about the importance of physical activity, as well as prescribe it.

## SAMPLE METRICS

- # of districts/ schools that have shared use agreements
- Rating of shared use policies/mandates for each school district within city
- # of people who access physical activity options governed by shared use agreements

- Changes in stair usage before and after interventions
- # of stair prompts distributed
- # of buildings posting stair prompts

- # of codes/ ordinances that incentivize mixed use
- % of low-activity-supportive areas with a (funded) plan for improvement
- # of construction guidelines designed to encourage maximum use

- Funding to convert key transportation routes to multi-modal streets
- Rating of complete street policies/ laws/ mandates
- Miles of Complete Streets planned and built

- # of partnerships developed
- # of initiatives/campaigns launched by partners
- # of local physicians who prescribe physical activity



# BRIGHT SPOTS

## NEW DELHI (INDIA)

Taking a page from the much smaller city of Gurgaon, New Delhi and its population of 22 million recently began to host Raahgiri Day. This is a weekly event that closes city streets to cars, making them available for walking, biking, dancing, skating and any other activity residents endeavor to take up. In a city with massive traffic congestion and air pollution, Raahgiri Days are a welcome addition to the civic calendar and cost very little to implement.<sup>85</sup>

## PHOENIX (USA)

In Phoenix, Arizona, basketball courts and other recreation facilities are kept open late (until 2 a.m.) in the summertime. When this happens, reports of juvenile crime drop by up to 55 percent. In the fall, these facilities revert back to their regular hours and crime reports go up again. At a cost of sixty cents per youth, late night recreation seems like a great option for expanded programming throughout the year.<sup>86</sup>

## SOUTH KOREA

In South Korea, parks have exercise equipment—everything from weights to manually operated stair climbers. They're free and open to the public 24 hours a day, 7 days a week. Once established, they cost virtually nothing to maintain and they create a visible signal of physical activity as a cultural expectation.

## CINCINNATI (USA)

A public-private partnership led by civic leaders, local businesses, nonprofits, and Procter & Gamble creates a play-like environment and experiences for children and adults throughout the city. The initiative, led by go Vibrant, a nonprofit established solely for the purpose of making an active, energetic lifestyle irresistible, has created the largest network of urban walking routes in the United States, a 4.5 acre park – the P&G go Vibrantscape – on the riverfront where movement causes things to happen and a Borrow-Play-Return program called go Vibrant Play Now in local parks where residents can use sports equipment for free. To ensure widespread awareness and access, activities and new features are promoted regularly on the [govibrant.org](http://govibrant.org) website and through an enthusiastic Facebook community.





# DESIGN FOR PEOPLE TO BE ACTIVE

It's time to take a fresh look at how we design our cities. Why? Because people are designed to move. Instead of looking at things like vehicle miles traveled or square meters of park per 1,000 people, design specifically for people's needs. Decisions are made based on goals to increase meters and decrease miles, for example, while neither of these measures actually considers people. Are those meters of park close to the poorest neighborhoods? Are vehicle miles reduced because people have active alternatives that are safe and accessible? When people become the focus of a city's design, their cities become safer, healthier, more productive places. And those are the cities people want to live in.

**FIND OUT WHAT PEOPLE WANT:** When it comes to the changes that would make people more physically active, it's essential to understand what people want and need. Are a lack of safe bicycle parking or dedicated bicycle lanes barriers? Do people need better connections between public transport and trails?

**MAKE PHYSICAL ACTIVITY A GIVEN:** Expect policies, infrastructure and all city efforts to increase levels of physical activity. Activity—and the fact that people are designed to move—is not something that should be added as an afterthought. It should be embedded in every policy from the beginning.

**INCLUDE EVERYONE:** Some people are more vulnerable to physical inactivity than others—often because options are not as available or appealing to them. These include girls and women, the elderly, those with low incomes, those with disabilities, etc. Options need to be developed for all.

## CHECKLIST

### FIND OUT WHAT THE PEOPLE WANT:

City leaders know what the people want when it comes to physical activity; public opinion polls (at a city or community level) on physical activity options is captured at regular intervals



## PRACTICAL STEPS & IDEAS

### CONDUCT SURVEYS AND TOWN MEETINGS:

To determine the specific interventions that would encourage/enable them to be physically active, people need to be asked.

## SAMPLE METRICS

- # of questions regarding designing for physical activity in public opinion polls
- Satisfaction levels of citizens regarding physical activity opportunities and infrastructure
- Measurable increase in awareness and/or interest in physical activity design options

## CHECKLIST

### INCLUDE EVERYONE:

There is a plan in place to address accessibility (e.g. cost, safety, socio-economic access, access for people with disabilities, etc.)



### MAKE PHYSICAL ACTIVITY A GIVEN:

Infrastructure supports active transportation



### MAKE ACTIVE POLICY A PRIORITY:

Policies are updated to incentivize and maximize walkability, bikeability and playability



## PRACTICAL STEPS & IDEAS

### DETERMINE THE BIGGEST BARRIERS TO PHYSICAL ACTIVITY IN YOUR CITY AND FOCUS THERE:

Strategies need to be in place to ensure that communities and people with more limited incomes benefit without getting priced out; equity should be one of the specific goals.

### TREAT SUSTAINABLE TRANSPORTATION AS ACTIVE TRANSPORTATION:

Look at existing plans for sustainable transport through a lens of physical activity by considering how cyclists and pedestrians can safely and easily move throughout the city.

### INTEGRATE ACTIVE TRANSPORT AND PUBLIC TRANSPORT:

Consider how options to bike, walk and play are connected to public transport. For example, connect bike lanes, trails, parks and streets with sidewalks to transportation systems.

### TAKE A FRESH LOOK AT POLICIES:

Look at how incentives or policies support or challenge physical activity as the norm. Consider something like minimum parking requirements, for example. In dense cities, they've unintentionally encroached on sidewalks and public spaces, inhibiting physical activity. A more effective idea would be to establish them for bicycles instead.

## SAMPLE METRICS

- Types of recreational facilities offered proximate to residents across all neighborhoods
- Proximity, access to public space, such as parks, plazas and amount and types of public space/usage of parks, plazas and trails across all neighborhoods

- # of km/miles of bicycle lanes
- % of walking and cycling rates
- Frequency, mode shares and demographics for walking, cycling, mass transit usage
- Amount of high-quality pedestrian infrastructure (e.g., pedestrianized streets and sidewalks) in high volume areas
- # of traffic fatalities and injuries per 100,000; injuries prevented/lives saved from increase in physical activity infrastructure
- Walk scores of routes to recreational facilities/parks
- # of blocks measured for pedestrian quality
- Access/proximity to mass transit service
- Access/proximity to parks, rec, greenspace & parks/greenspace per 100,000 residents
- # of people using parks and public spaces
- Bike parking spaces at transit stations
- % of buses that allow bicycles
- # of hours/week during which bicycles are allowed in public transit vehicles

- # of policies focusing on new infrastructure that consider physical activity
- Existence of a formal Complete Streets policy and identification of funding to implement the policy



# BRIGHT SPOTS



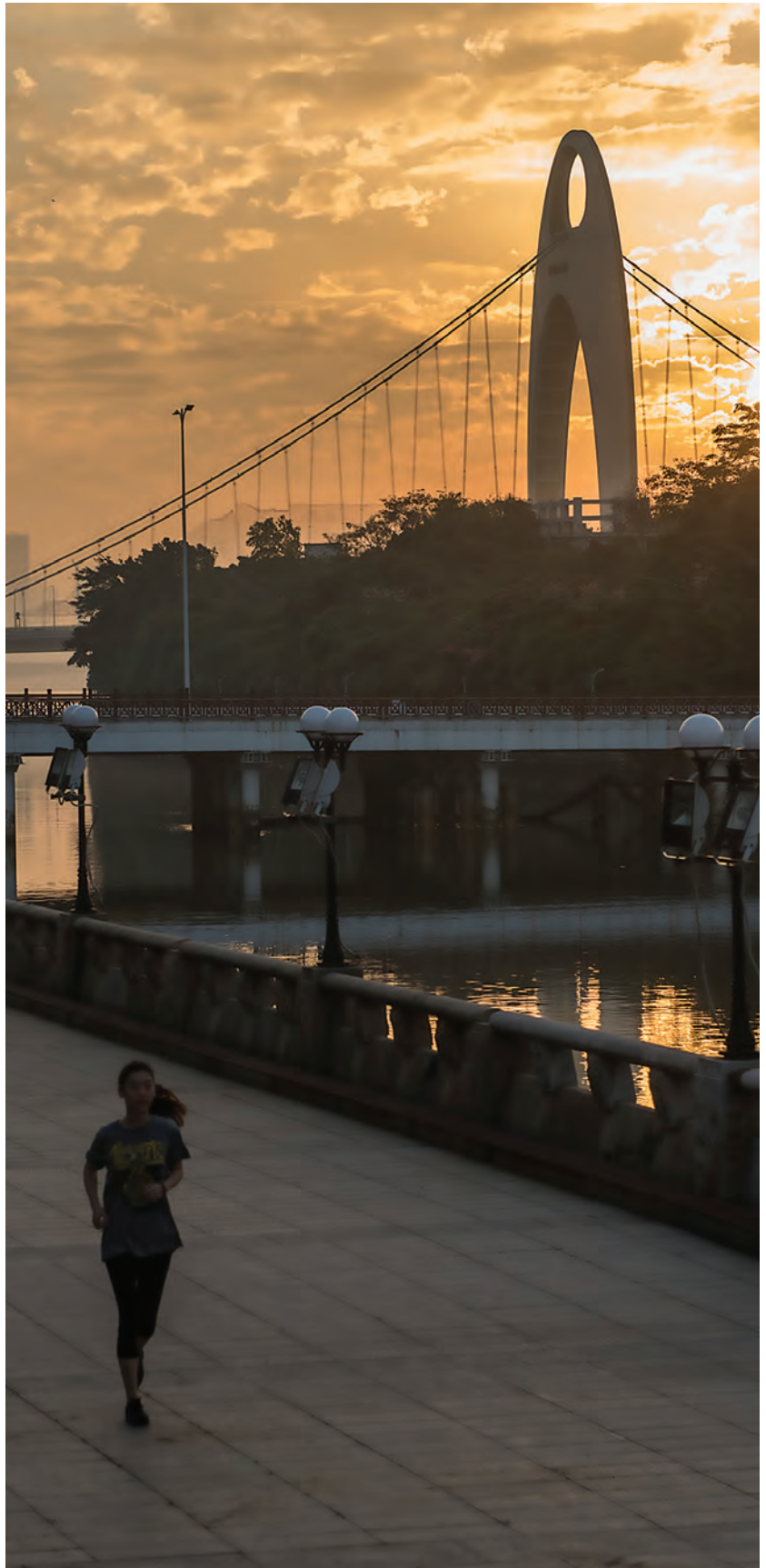
## GUANGZHOU (CHINA)

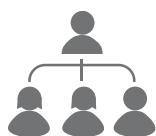
With the city of 12.8 million already built along the Pearl River – an ecological river corridor – city leaders saw an opportunity to transform Guangzhou into a livable city, gateway to China, and national and international economic hub. The plan centers on transforming the riverway. Guangzhou's transformation was the centerpiece of two important development plans: The Guangzhou Edition of Pearl River Delta Reform and Development Plan (2008-2020) and the Guangzhou Modern Industrial System Development Plan. Both of these plans specifically outline livable design priorities, which also happen to be active design priorities.

The idea was to redevelop the river region around a series of interconnected greenways that actively protect the ecological resources, while improving public access to the natural environment. Today, that translates to six connected paths making up 1,060 kilometers of greenway that connects 234 tourist attractions, 98 streets, 42 Asian Game venues and serves 7 million people.<sup>87</sup>

## STOCKHOLM (SWEDEN)

Sweden's Vision Zero road policy is rooted in the belief that road fatalities are not a given in transportation planning. Vision Zero assumes system design—not people—is at fault for accidents. Design, infrastructure, technology and enforcement are modified accordingly. The result? Sweden has one of the lowest annual rates of road deaths in the world and fatalities have dropped nearly 50 percent in five years.<sup>88</sup>





# CREATE A LEGACY OF PHYSICAL ACTIVITY

Physical activity is not a short-term solution. When administrations change, there is no guarantee that active design will stick around, but the right infrastructure and policies will increase the odds significantly, especially if people have already taken to them. That's when a culture of physical activity takes shape, making it politically disadvantageous to backslide.

## ACTIVATE STAKEHOLDER DEMAND:

If people, businesses and other key stakeholder groups already support the plans that are in place, a new mayor will have a difficult time changing them.

## CHANGE THE INFRASTRUCTURE:

Once new infrastructure is in place, it becomes sustainable and difficult to change. Especially if it's what people want.

## CHANGE THE POLICY:

Changing public policies, codes and ordinances to enable more physical activity is an essential step in creating a cultural expectation of activity within a city.

## CHECKLIST

### ACTIVATE STAKEHOLDER DEMAND:

Efforts are in place to build support among various stakeholder groups including citizens and the private sector



### ACTIVE STAKEHOLDER DEMAND:

Plan has short-term and long-term components that multiple stakeholders are behind



## PRACTICAL STEPS & IDEAS

### GIVE PEOPLE WHAT THEY WANT:

The best physical activity solutions are the things people want. In New York City, people love the renovated playgrounds and pedestrian-friendly street design. In Bogota (Columbia) Ciclovias has given people a sense of ownership over their streets. In Amsterdam, an uproar would ensue if there were reductions to cycling paths.

### TRACK PROGRESS AND PROMOTE SUCCESS:

Most cities will probably track progress anyway. Cities that are successfully making their citizens active should celebrate and make public their success. When a city is better off thanks to an active citizenry, it's hard to dispute.

## SAMPLE METRICS

- # of public awareness campaigns and success of implementation
- Levels of interest, engagement and satisfaction levels with physical activity interventions

- Cost savings or growth from various interventions
- Reduced cost of government infrastructure—both building it and operating it



## CHECKLIST

### CHANGE THE INFRASTRUCTURE:

Infrastructure improvements that support physical activity, once completed, are less likely to be reversed



### CHANGE THE POLICY:

Policies are in place to ensure longevity of plans



## PRACTICAL STEPS & IDEAS

### BUILD FOR ACTIVITY:

Infrastructure is not likely to change once it exists—especially if the only purpose is to make people less active. So make those stairwells more visible, aesthetically pleasant and accessible. Mark those bike lanes and add parking facilities for bicycles. Add pedestrian islands and calm the traffic. Open up the parks and playfields. Build sidewalks. Add street lights and traffic lights. For more ideas and practical guidance, download the [Active Design Guidelines - Promoting Physical Activity and Health in Design](#) by the City of New York.

### CREATE ACTIVE POLICIES:

There are plenty of policies that can be easily modified to encourage more movement. To name a few: policies around development, zoning, school siting, affordable housing, cycling paths, traffic calming, pedestrian-friendly zones, Complete Streets, park availability, etc. For specific guidelines and recommendations, see [How to Create and Implement Healthy General Plans](#) by Changelab Solutions.

## SAMPLE METRICS

- Increase in neighborhoods with active living infrastructure
- # of parks by area
- % of the population with access to park within certain distance
- Km/miles of bicycle lanes, off-street trails
- Amount of space in area of pedestrian-only space
- Km/miles of bus rapid transit, metro, light rail transit, high frequency bus corridors, etc.
- Share of city spending on active city capital infrastructure projects (bicycle, pedestrians, mass transport in road projects; parks and public space, recreation programs, etc.)
- % of stairs that are visible
- % of stairs that are accessible
- Connectivity of bicycle lanes and walking routes to public transport
- Ratio of parks to people across neighborhoods
- # of policies that support/consider physical activity within development, schools, housing and transportation

## BRIGHT SPOTS

### BOGOTA (COLOMBIA)

Unlike many cities in South America, Bogota's levels of physical activity have actually increased over the past decade.<sup>89</sup> Why? Because of innovative city planning and transportation projects. For example, parking on sidewalks was banned. Reclaiming sidewalks as public domain not only helped to discourage car use by removing "parking spaces" but increased the safety and accessibility of space for everyone (not just wealthier car owners), and improved opportunities for walking.<sup>90</sup>

Ciclovía, on Sundays from 7am to 2pm and on holidays, 75 miles of streets in Bogota are closed to cars. Pedestrians, cyclists, skaters come out to enjoy the open streets free of traffic.

### BOSTON (USA)

In Boston, Massachusetts, 14 city agencies have come together to implement Complete Streets—an initiative that gives pedestrians, bicyclists and transit users the same priority as car users. The initiative was launched in 2009 to develop new street design guidelines and implement projects that take a Complete Streets approach. This includes multi-modal roadway design, green design elements, and smart design like intelligent signals, smart meters, electric vehicle sharing, car and bicycle-sharing, way-finding and social network tools.

These design guidelines have been implemented in at least 20 city construction projects.<sup>91</sup>





PROVIDING SPORT SPACES IN URBAN AREAS AND MAKING THEM AVAILABLE TO ALL AT DIFFERENT TIMES THROUGHOUT THE DAY AND EVENING GIVES EVERYONE A CHANCE FOR FUN PHYSICAL ACTIVITY





# 3

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## WHO IS DOING THIS WELL?

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Cities don't have to invent something entirely new. We found examples of cities from all around the world that are already doing a great job, and much can be learned from them. In fact, these active cities and many others are what helped us identify the common ingredients for success.

**1****HERNANDO**  
UNITED STATES**2****BUENOS AIRES**  
ARGENTINA**3****NEW YORK CITY**  
UNITED STATES**4****COPENHAGEN**  
DENMARK**5****RIO DE JANEIRO**  
BRAZIL**6****MEDELLIN**  
COLOMBIA**7****RED DEER**  
CANADA**8****BRISTOL**  
UNITED KINGDOM**9****ADELAIDE**  
AUSTRALIA

# HERNANDO (UNITED STATES)

**MOVING FROM A CULTURE OF  
INACTIVITY TO A CULTURE OF HEALTH**

## POPULATION

15,000

## MAYOR

CHIP JOHNSON

## CATALYST

MISSISSIPPI (WHERE HERNANDO IS  
LOCATED) HAS THE HIGHEST OBESITY  
RATE IN THE UNITED STATES<sup>92</sup>



**REPURPOSING CATTLE UNDERPASSES FOR PEDESTRIANS AND CYCLISTS KEEPS HERNANDO MOVING**



**AN ANNUAL RIDE ACROSS THE STATE BRINGS CYCLE-TOURISTS TO HERNANDO AND RAISES THE CITY'S PROFILE**

"All of the work we're doing adds up to creating a culture of health. People in our town are proud of that and it's important to our long term viability. People are looking to locate in healthy towns, and so are businesses."

- Mayor Chip Johnson

When Chip Johnson ran for mayor of Hernando in 2005, he did so on a walkability and parks platform. At the time, the city had very few safe sidewalks, no bicycle lanes and limited opportunities for recreation. Johnson saw this as a serious issue in a state with the nation's highest obesity rate.

With very limited resources—the total town budget is \$15 million and raising taxes is not a practical option—Mayor Johnson had to get creative. One of the first things he did was establish a parks department. "We had three guys who were mowing grass," Johnson says. "We turned

them into the Parks Department." From borrowed land and re-purposed spaces to seeking out grants for health tourism and learning lessons from other towns, Hernando has literally become the Healthiest Hometown in Mississippi.



# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

- The Mayor's Office is a healthy workplace that encourages walking meetings. In addition, police officers and firemen can attend the local gym during work hours.
- The Mayor and the town host high-profile events such as a 10k run, bike-to-work days, the ride of silence and a rest stop for an annual 150-mile FedEx Rock 'n Roll Mississippi Bike Ride supporting the National Multiple Sclerosis Society.
- With little funding available, the city seeks out alternate sources of funding. For example, they were able to obtain a \$10,000 grant to host their first 10k run after convincing the Mississippi Development Authority "that health tourism exists."
- Mayor Johnson championed the development of a master parks plan that lays out the specific plans and locations for a new skate park, dog park, soccer complex and other resources. With specific plans in place and locations locked in, private citizens are now raising the money that's needed.



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

- With no city-owned gymnasiums, Hernando negotiated joint use agreements with the town's schools to provide a place for youth basketball.
- The city partnered with Hernando Bicycle Club to support beginning cyclists.
- The city uses an empty pasture to operate its soccer programs for 900 youth.

- A box culvert (a highway underpass designed to move cattle in the '60s) was transformed into a safe way for pedestrians and cyclists to cross from one side of the freeway to another.



## DESIGN FOR PEOPLE

- To ensure equal access, the Farmers' Market was intentionally located within walking distance of one of the town's poorest neighborhoods.
- A Complete Streets policy requires that pedestrian and cycling options be factored into all road construction.
- The city identified streets that were wider than necessary (typically in subdivisions built decades ago) and painted cycling lanes to make active transport safer.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

- Public policy changes were incorporated, such as standard to require sidewalks in all new development and a Complete Streets policy that allows for all modes of transportation.
- Developers are required to set aside 10 percent of their space for open space.
- Repairing the busiest downtown sidewalks was prioritized.
- Improving the city's physical environment has fostered a culture of health. For example, in 2005 a parks program was created with new athletic facilities, a community garden and existing parks were renovated. Home to one of the largest farmers markets in the state, Hernando is a "Let's Move" city that promotes the Healthy Eating, Active Living program.

## THE RETURN

- After implementing healthy workplace efforts, the City's health insurance premiums were reduced by 15 percent, saving taxpayers approximately \$130,000.
- In 2005, 35 percent of downtown buildings were vacant. Today, none are.
- In 2010, Blue Cross & Blue Shield of Mississippi named Hernando the "Healthiest Hometown in Mississippi."
- The town went from having no Parks Department in 2005 to having 23 programs serving thousands of people by 2014.
- The town has gone from being ranked 15th in the state in median income to being ranked 5th. Mayor Johnson attributes this to people moving to Hernando simply because it is healthier.
- When a large company in an adjacent town looked to expand, they located in Hernando despite receiving fewer tax incentives. They did so because their employees wanted to live in Hernando.

# BUENOS AIRES (ARGENTINA)

**TRANSFORMING A CITY OF CARS  
INTO A CITY FOR CYCLISTS**

**POPULATION**  
3 MILLION (METRO)

**MAYOR**  
MAURICIO MACRI

**CATALYST**  
TRAFFIC CONGESTION, ENVIRONMENTAL  
CONCERNS AND A CITY FULL OF UNUSED  
BIKES SPARK CHANGE



"Five years ago Buenos Aires did not have Bus Rapid Transit (BRT), there were only two pedestrian streets and few people commuted by bicycle. Once we developed the infrastructure, cultural changes took place and it changed the way we move in Buenos Aires."

- Guillermo Dietrich, Head  
of Transport and Traffic for  
Buenos Aires

With heavy traffic congestion and a car-reliant infrastructure that neglected the needs of 60 percent of its commuters, Buenos Aires set out to change the culture of transport in the city. With 1 million unused bikes in Buenos Aires, the city's Secretary of Transportation sought to understand what would inspire people to take up cycling as a mode of transport.

The answer was simple: Safer roads and safer parking.

# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

City leaders knew they'd face some opposition in the beginning. Although only 40 percent of the city's commutes are taken by private vehicle, those taking them tend to be among the more politically influential.

The mayor knew he needed a clear plan and the conviction to see it through.

City leaders began with a long-term vision for bicycle and pedestrian transport. Then they started small and built demand.

The ambitious four-year plan aims to have 90 percent of central district streets with pedestrian and cyclist priority by 2015, alongside a 90 percent reduction in motor vehicle traffic.



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

To raise awareness, city leaders invited journalists to cycle the city.

Partnerships with private employers encourage sustainable transit and safe parking options for employees.

In exchange for city-provided bicycle parking, retail partners provide incentives to customers who arrive by bicycle.



## DESIGN FOR PEOPLE

Road markings, bike traffic lights, physical dividers between car lanes and bicycle lanes, two-way bike lanes and traffic calming measures have been implemented to create a safe cycling and pedestrian environment.

Slower speed limits, redesigned crosswalks, and expanded pedestrian zones are being developed at 100 of the city's busiest intersections to ensure a safer, friendlier experience for walkers.

The city has added 8,704 safe parking spaces for bicycles.

The bike sharing system is in the process of expansion, by the end of this year it will have 200 stations that will serve 6.5 million trips/year.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

Public policy mandates that the parking rate for bicycles cannot exceed 10 percent of the price of car parking.

Each year, 25-30 kilometers of new bicycle lanes are added.

In 2013, the city launched a bus rapid transit corridor on the 9 de Julio Avenue, its busiest and widest street. The corridor goes across the city's central area and represents a landmark of great significance to porteños (the people of Buenos Aires) as well as other Argentineans. The entire infrastructure on the avenue was changed and the reorganization of traffic flows generated a positive impact for everyone along the avenue.

2015 will finish with 56km of a BRT network connecting the main transport hubs of the city. 1.2 million people will benefit.

## THE RETURN

- Noise and gasoline emissions have been cut in half.
- In the city's central area, vehicle traffic was reduced by 80 percent between 2009 and 2014 and 50 percent of streets have pedestrian and cyclist priority.
- The percentage of bicycle trips increased by more than 7 times (from 0.4 percent to 3.5 percent) between 2009 and 2014.
- The popularity of cycling has spawned hundreds of new enterprises including bicycle accessories, clothing and "fashion bikes."



# NEW YORK CITY (UNITED STATES)

**BOLD LEADERSHIP AND CROSS-SECTOR COLLABORATION TRANSFORM THE UNITED STATES' MOST POPULOUS CITY**

## POPULATION

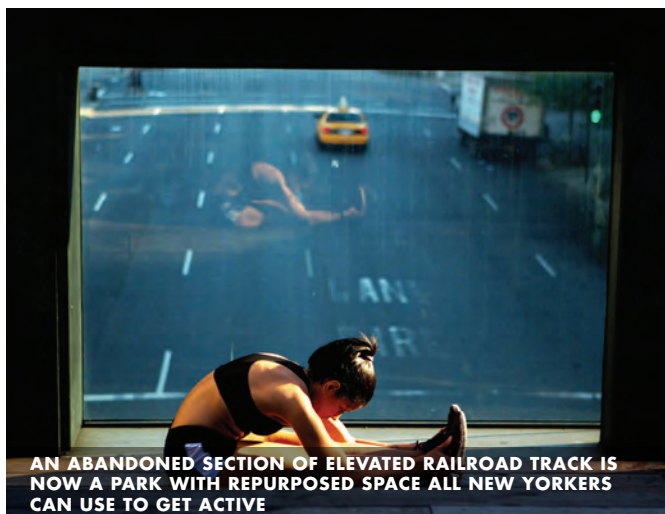
8.2 MILLION

## MAYOR

BILL DE BLASIO (CURRENT)  
MICHAEL BLOOMBERG (FORMER)

## CATALYST

ANTICIPATED GROWTH OF NEARLY  
1 MILLION NEW RESIDENTS BY 2030



AN ABANDONED SECTION OF ELEVATED RAILROAD TRACK IS NOW A PARK WITH REPURPOSED SPACE ALL NEW YORKERS CAN USE TO GET ACTIVE



STREETS THAT ARE DESIGNED FOR SAFE ACTIVE COMMUTING ARE MORE ACCESSIBLE TO ALL

Under current Mayor Bill de Blasio, as well as former Mayor Michael Bloomberg, New York City is a model active city.

In 2007, Mayor Bloomberg's administration launched PlaNYC, New York City's master plan for addressing the anticipated population growth from 8.2 million to 9 million residents by 2030.

The plan became a blueprint to manage growth while incorporating considerations for environmental sustainability and ensuring quality of life for city residents. Goals were set to increase non-automobile modes of transportation including walking, cycling and transit, and to create parks, plazas and playgrounds within a 10-minute walk of all residents.

New York has consistently demonstrated a commitment to integrating physical activity into city life.

Building on the yearly interdisciplinary Fit City conferences since 2006, the City of New York collaborated across 12 city

departments to develop and implement the Active Design Guidelines in 2010 to promote inclusion of physical activity factors into design and construction. Such processes helped to pave the way for a Mayoral Obesity Task Force to accelerate reversing childhood obesity trends and for PlaNYC version 2 to include public health explicitly as a goal in 2011. The result is a comprehensive approach to physical activity and healthier eating that is visible in every facet of city life.

Much of this work continues today and is being further expanded under the current administration of Mayor de Blasio. This includes the addition of 50 miles of bike lanes annually and more than doubling the number of bikes and bike stations for the hugely successful Citi Bike bike-sharing system. Mayor de Blasio is also addressing equity and equitable access issues as a cornerstone of his administration, including plans to renovate playgrounds across neighborhoods of high need.

"Streets are now safer by design. We are putting every tool we have—engineering, enforcement and education—to use in reaching Vision Zero. This is about more than numbers. Vision Zero means parents can more safely cross the streets with their children, and seniors can walk their neighborhoods more easily. We're approaching this second year of work with proof these methods work and expanding them to even more neighborhoods."<sup>93</sup>

- Mayor Bill de Blasio

# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

Public health was a core issue throughout Mayor Bloomberg's tenure. Mayor de Blasio is continuing and building upon New York City's role as an international voice in support of integrating physical activity into everyday life.

To ensure widespread impact city staff coordinate multiple groups—within and outside of City government—on projects to improve the environment and public health, particularly physical activity and healthy eating.

Physical activity and active living issues are included in planning and other city documents that affect how the city grows.



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

New York is a leader in innovative approaches to leveraging its resources. For example:

- Yearly Fit City conferences bring together different groups – including government departments, developers, architects, planners, nonprofit groups and city residents – to learn from experts and to align multiple stakeholders.
- School construction guidelines now include “gymnatoriums” (auditoriums that offer space for physical activity when the auditorium is not needed) in addition to a gymnasium and secure bicycle storage.
- City-owned buildings are required to promote stair use through stairway access and posting of signage encouraging stair use.



## DESIGN FOR PEOPLE

Citi Bike, one of the world's largest bike-sharing systems, includes 6,000 bicycles and 330 docking stations. The system is expanding and by 2017 will include 12,000 bikes and over 700 stations—the largest system in North America. People using the bikes can return them to any station, creating an efficient network offering a huge number of possible trips. Citi Bike comes at no cost to taxpayers, and Citibank's sponsorship covers the cost of the equipment.

New York has also made a priority of bicycle infrastructure with 960 miles of bike lanes; 650 miles of on-street lanes (including 50 miles of protected lanes including on bridges) and 310 lane-miles on greenways, and through parks. The city also has 23,000 bike racks and 46 bike corrals (5-6 racks taking over one vehicular parking space) with great demand by small businesses for more.

To ensure widespread access, bike routes are being extended throughout New York's boroughs, including restoration of the Highbridge over the Harlem river which will connect Harlem to the Bronx.

Increasing pedestrian access is also a high priority and in many areas of the city, unused or underutilized spaces are being transformed to plazas and other open spaces that invite people to walk.

Currently there are 49 plazas that are publicly accessible throughout the city. An additional 22 are either in planning, design or construction. The Department of Transportation (DOT) has created a public/private partnership program in the design, development and operation of these plazas.

## THE RETURN

- Bicycle travel increased 126 percent (since 2007)
- Transit ridership into the Central Business District increased 11.3 percent (2003-2012)
- Traffic fatalities citywide decreased almost 30 percent since 2001
- Childhood obesity trends reversed
- Retail sales increased around pedestrian plazas
- 217 publicly accessible waterfront spaces constructed
- Life expectancy is 2.2 years longer than in the rest of the United States, and is rising faster than in the rest of the country approaches<sup>94</sup>
- Summer Streets participants engage in the equivalent of 72-86 minutes of moderate-intensity physical activity on the Summer Streets route, about half the total recommended weekly physical activity<sup>95</sup>
- The city is seeing record numbers of tourists (over 50 million annually) and the figure continues to increase

"This year [2011] our city saw a record decrease in the number of New Yorkers who smoke, and now we have even more good news about New Yorkers' health. Even as childhood obesity in the rest of the nation has remained flat or gotten worse, in New York City, it is declining. Children who are more physically fit have fewer health problems – and fewer trips to the hospital. That's great news for kids and their families, and for taxpayers too. Over the past decade our administration has pioneered two new health intervention strategies, and that work is clearly paying off."<sup>96</sup>

- Former Mayor Michael Bloomberg

To further encourage walking, the DOT inaugurated the WalkNYC wayfinding program to make New York City more navigable to residents and visitors. Easy-to-read maps are being installed on identifiable totems on streets and all bike share stations, and will be installed in the subway and on bus rapid transit stations on structures that provide real-time bus information.

In addition to cycling and walking, New York has made a priority of recreation and play. Over the last decade, New York City added 850 acres of parks and public spaces, many located on the waterfront.

The city also converted more than 300 asphalt schoolyards to public playgrounds and synthetic turf fields by working with the Department of Education and the Trust for Public Land. In addition, they increased the number of fields and play areas in five regional parks and the restoration of a major public pool that had been closed for 30 years. Finally, field lights were added to existing ballfields to extend playable hours.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

Public policy and planning goals support physical activity over the long term. For example, in 2010, the city published the Active Design Guidelines (ADGs),<sup>97</sup> a set of strategies that designers, developers, and policy makers can use to increase opportunities for physical activity in the built environment. The ADGs help to address obesity by encouraging and enabling people to move more actively through the city's neighborhoods, streets and buildings.

In 2013, in partnership with the Health

Department, the Department of City Planning (DCP) published Active Design: Shaping the Sidewalk Experience,<sup>98 99</sup> a study focusing on the sidewalk as a critical public space network with recommendations on how to create better sidewalks and, in turn, a more walkable city. Additional ADG supplements have also been published.<sup>100 101</sup>

Some of the city's other early active design innovations include:

- A collaboration with the U.S. Green Building Council to create a new Leadership in Energy and Environmental Design (LEED) green building certification Pilot Credit known as "Design for Active Occupants," using one of its health department buildings as the first project. The credit has now been registered for use in over 250 buildings in and outside NYC.<sup>102 103</sup>
- An Executive Order signed by Mayor Bloomberg requiring City agencies to review the design of all new construction and major renovation projects for opportunities to implement strategies in the ADGs as well as the LEED Pilot Credit. This requirement applies to the construction and renovation of City buildings and streets.
- A zoning ordinance passed by DCP in 2009 to require indoor, secure bicycle parking in new buildings. Approximately 350 buildings now allow bike access for over 6,500 bikes.
- DCP also updated old waterfront regulations in 2009 to ensure the city's waterfront spaces are accessible and inviting to the public, feature high-quality design elements and promote passive and active recreational uses.
- Since taking office, Mayor de Blasio's administration has promoted active policies and programs. For example:
- de Blasio launched Vision Zero to make city streets even safer for pedestrians. Slowing traffic to 25 mph will make it safer for people to walk.
- A majority of students walk or take public transit to school, but many use buses to travel short distances. DOT's "We're Walking Here" program encourages walking at 200 schools annually and provides curriculum support on the benefits of active living.
- DOT's "Beat the Street" program encourages students to walk by using transponders and key cards to count trips taken. Students compete against other schools to see who can rack up the most trips.
- Bike to School is a collaborative project between DOT, Recycle-a-Bicycle and Bike New York, working with 12 schools to foster biking as a mode of transportation.
- Over the past seven years, DOT has organized three Saturday weekends in August as Summer Streets. The main artery, from the Brooklyn Bridge up to 72nd Street is closed to traffic. People run and ride bikes from 7 am to 1 pm. Along the route are activities, such as fitness classes. In 2014, over 300,000 people came out for Summer Streets, which is now a NYC institution.
- Under Mayor de Blasio, DCP is also partnering with the Health Department, other city agencies and community partners, to bring a further health and well-being focus to its planning efforts in specific neighborhoods with high health needs.





PUBLIC SPACES ARE IDEAL FOR PHYSICAL ACTIVITY PROGRAMS AND CLASSES LED BY LOCAL INSTRUCTORS AND PARKS & REC STAFF



# COPENHAGEN (DENMARK)

WHERE IT'S NEVER ENOUGH—  
MAKING AN ACTIVE CITY MORE ACTIVE

**POPULATION**  
2 MILLION (METRO)

**MAYOR**  
LORD MAYOR FRANK JENSEN  
TECHNICAL & ENVIRONMENTAL  
MAYOR MORTEN KABELL

**CATALYST**  
RECOGNIZING THE BENEFITS OF  
PHYSICAL ACTIVITY TO THE CITY AND  
THE CITIZENS SPARKED A COMMITMENT  
TO BECOMING EVEN MORE ACTIVE



"It is a privilege for me to represent a city with such a high international acclaim. However, it is at the same time a challenge, and my vision to ensure that the City of Copenhagen retains and develops this position by continuously rethinking and improving the way in which we solve problems as a city and as a community."<sup>104</sup>

- Lord Mayor Frank Jensen

In many ways, physical activity is already part of Copenhagen's culture. It is one of the most cycle-friendly cities in the world. Public swimming areas and accessible parks are the norm. But there's still plenty of work to be done.

In Denmark, most 11-year-olds move enough (meaning they meet recommended levels of physical activity). By age 15, this is no longer true.<sup>105</sup>

City leaders realized there is no room for complacency. The result is a series of innovative approaches to the development of parks and public spaces.

For example, in the city's most ethnically and economically diverse neighborhood (Nørrebro), architects and city planners worked with neighborhood residents to design a 1km-long park called Superkilen in the center of the neighborhood. This was an effort championed by the city and it features a cycling track, running/walking lanes, traffic connections to public transport and a sport square.

# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

Copenhagen's Lord Mayor, Frank Jensen, knew the best way to make physical activity a reality throughout the city would be to engage the city's six Mayors (or department heads). These include the heads of Culture and Leisure, Technical and Environmental (including transport), Finance, Children and Youth, Health and Care, Social and Employment.

Copenhagen's planning processes are typically on 4-year cycles and include goals with 12-year outlooks. This allows targets to be regularly updated and progress to be measured.



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

Creative ways to encourage physical activity are found throughout the city. For example, an artist was commissioned to create "Free Zone Signs" that comment on the way people use public space. They look like traffic signs, but show people running, jumping and dancing.



## DESIGN FOR PEOPLE

The people have a say. For example, Superkilen is a celebration of the neighborhood's diversity and residents were engaged throughout the process to provide input on elements that would reflect their needs and interests.

In Copenhagen, it's never enough. Even in a place where 41 percent of people cycle to work, they've instituted a goal to make it 50 percent by 2015. That is why they are widening the cycle tracks in the busiest streets. In some cases, where the amount of cycle traffic is highest, the city is making the cycling lanes even wider than the roads they're adjacent to.

City planning prioritizes walking and cycling higher than private motorized transport. For example the city's pedestrian strategy aims for significant increases in walking and planning is driven by surveys of citizens' interests.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

Implementing activity-friendly public policy is one of the key ways Copenhagen ensures the sustainability of its efforts. For example, a municipal policy goal in place aims for all Copenhagen citizens to be able to reach a park or beach in less than 15 minutes on foot. Once in place, it would be impractical for a new administration to remove these solutions.

## THE RETURN

More than half of Copenhageners choose walking or cycling as their preferred transport options. Between 1996 and 2012:

- Distance cycled increased 37% (from .93 million km/day to 1.27 million km/day)<sup>106</sup>
- Satisfaction with Copenhagen as a cycling city increased 24 percentage points (from 71% to 95%)<sup>107</sup>
- The number of kilometers cycled between serious injuries has nearly quadrupled<sup>108</sup>



# RIO DE JANEIRO (BRAZIL)

**IN A COUNTRY FACED WITH RISING OBESITY RATES AND HOME TO THE LEAST ACTIVE CHILDREN IN LATIN AMERICA, RIO SEEKS TO TRANSFORM ITSELF**

## POPULATION

12 MILLION (METRO)

## MAYOR

EDUARDO PAES

## CATALYST

BRAZIL'S RISING INACTIVITY RATES RUN COUNTER TO THE IMAGE OF A COUNTRY THAT JUST HOSTED THE WORLD CUP AND WILL SOON PLAY HOST TO THE 2016 OLYMPIC GAMES



**REPURPOSING EXISTING SPACES CAN EASILY MAKE MOVING FUN**



**MANY CITIES PROVE THAT CREATING SPACE FOR ACTIVITY WILL DRAW CROWDS**

"Rio has an opportunity to be a leader in the fight against physical inactivity. As the world turns its attention toward our city once again, they will see programs, policies and infrastructure designed for an active city. We believe the returns in terms of health, quality of life and economic payoff will be well worth the cost of our large infrastructure investments."

-Rodrigo Rosa, Special Advisor to the Mayor

Brazil is a country that is already facing an epidemic of physical inactivity and the problem is only expected to get worse. If things don't change, activity levels by 2030 are projected to drop 34 percent from 2002 levels. Rio, the city known for playing host to the world's most elite athletes in the 2014 World Cup and 2016 Olympic Games, is demonstrating a serious commitment to getting everyday citizens moving in every possible way—from revitalized transport policy and parks to more opportunities for everyone to engage in sport.

# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

Under the leadership of Mayor Eduardo Paes, Rio is hosting the 2016 Olympic Summer Games, and is investing in a number of projects that can foster more physical activity, including an integrated transport system, improving public space around the city's port, car-free days, new parks, bicycle lanes and a bicycle share system.



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

On Sundays, one side of the city's main beachfront boulevards are closed to cars to allow bikers, joggers, pedestrians and skateboarders to use the space more freely.

In Rio's favelas, investments have been made to improve public spaces such as staircases and streets, as well as recreational offerings for children's play.



## DESIGN FOR PEOPLE

Since 2012, Rio has opened two new Bus Rapid Transit (BRT) corridors, TransOeste and TransCarioca, that provide more options to commuters who might otherwise choose to ride motorcycles or drive cars. In addition, two other BRT corridors— TransOlímpica and TransBrasil—are under planning and construction.

Parque Madureira, a new 26-acre/11-hectare park, provides cycling paths, skateboard ramps, weight training equipment, and multi-purpose sports courts, is located adjacent to a new BRT station, providing even more access to activity options.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

Rio has installed new protected bikeways and Bike Rio, a bikeshare program with 600 bikes at 60 stations.

## THE RETURN

- The Rio Bike bikeshare program has over 70,000 registered users and 5,000 trips per day.
- As many as 25,000 people use Parque Madureira daily.
- 93 percent of riders of the new BRT TransOeste are satisfied with the new system, helping prevent shifts to more sedentary modes such as private vehicles.
- Once completed, the BRT network will include 4 corridors and serve 1.4 million passengers per day.

# MEDELLIN (COLOMBIA)

RECLAIMING PUBLIC SPACES GIVES A  
CITY BACK TO ITS PEOPLE

## POPULATION

3.7 MILLION

## MAYOR

ANÍBAL GAVIRIA

## CATALYST

DECADES OF CRIME AND CORRUPTION,  
AND A STARK DIVISION BETWEEN  
THE RICH AND POOR PROMPT NEW  
LEADERSHIP TO REINVENT THE CITY



PARK EQUIPMENT DOESN'T NEED TO BE EXPENSIVE OR  
COMPLEX FOR KIDS TO ENJOY IT



OUTDOOR GYMS MAKE WORKING OUT ACCESSIBLE TO ALL

"A small group began to think in terms not of top-down policy, but of one that would begin with the poorest neighborhoods and re-conquer spaces that had been lost to the violence; it was both a concept and a physical strategy, a mixture of ideas and bricks."<sup>109</sup>

- Alejandro Echeverri, former  
Director of Urban Projects

Medellín used to be synonymous with violence and its association with drug production. Everything changed when Mayor Sergio Fajardo (2003-2007) set out on a mission to bring new life to the public spaces in Medellín that had been neglected or destroyed by poverty and crime. Fajardo sought to make a safer, more connected place for people to live. In doing so, he happened to make a place for people to be more active.

Mayor Fajardo worked alongside the city's former Director of Urban Projects, Alejandro Echeverri, to implement a public works plan that helped to connect the city's poor and wealthy neighborhoods through the addition of new transportation, libraries, and parks, to name a few. This work completely changed the way people move, largely because options are now safe and accessible.

Medellín's current mayor, Aníbal Gaviria, sees his role as continuing a larger effort. "What is being done here has to be committed to by successive administrators or else you lose momentum. None of this can be achieved in a single term - it needs me to take on what Fajardo started, and for whoever follows me to share these principles and values."<sup>110</sup>



# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

Echeverri worked with the Director of Urban Projects to connect the city's poor and wealthy neighborhoods through new transportation and parks.

Leaders speak openly and regularly about their efforts—which is how they've been named Wall Street Journal and Urban Land Institute's City of the Year (2012) and won the Curry Stone Design Prize for transformative public works (2009).



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

Re-inventing existing public spaces—such as narrowing streets and expanding sidewalks—enables physical activity.

As part of the city's Integral Urban Project, five 'library parks' were designed and built with the aim of facilitating improved education, providing community centers, and uniting different parts of the city.



## DESIGN FOR PEOPLE

Design focuses first and foremost on reaching the poorest residents.

A major shift for Medellín came with the introduction of MetroCable, a cable car that connects different neighborhoods to the local metro system. As a result, people who previously didn't have access to safe public parks or even the central metro area are now able to travel freely. The cable car has also improved people's access to jobs<sup>111</sup>, highlighting another way designing for physical activity brings economic outcomes to a city and its people.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

Medellín is partnering with organizations such as the Society of Architects and Engineers of Antioquia and the Colombian Chamber of Infrastructure helps build an ongoing commitment to active design.

Infrastructure changes including the addition of the Bus Rapid Transit (BRT) metroplus and a bicycle share program have created lasting options for active transport.

## THE RETURN

- The health benefit from physical activity of the Ciclovía program returns a cost-benefit ratio of 1.83<sup>112</sup>
- Library parks are used by 7,500 people every day<sup>113</sup>
- 60,000 daily passengers use the BRT corridor launched in 2011<sup>114</sup>
- Since 1991, Medellín's murder rate has fallen 80 percent<sup>115</sup>
- Medellín created 1.6 million square meters of new park space through 25 parks and 11 urban promenades<sup>116</sup>

# RED DEER (CANADA)

**A CITY PLANS FOR GROWTH WHILE  
MAINTAINING ITS REPUTATION AS  
A GREAT PLACE TO LIVE**

## POPULATION

100,000

## MAYOR

TARA VEER

## CATALYST

ANTICIPATED POPULATION GROWTH  
RATE PROMPTS REFLECTION ON HOW  
NEIGHBORHOODS AND TRANSIT  
ARE DESIGNED



OUTDOOR EXERCISE EQUIPMENT IS JUST AS POPULAR IN COLD CLIMATES AS WARM ONES



CITIES LIKE RED DEER MAKE THE MOST OF THEIR NATURAL RESOURCES—IN THIS CASE ENCOURAGING KIDS TO FULLY ENJOY SNOW-COVERED HILLS

“Like other cities, we live in a new economic normal. By better utilizing the existing infrastructure and assets that we already have and making a few small changes, we’ve actually been able to make substantive change to better serve our citizens.

The critical shift was identifying the need to move from a siloed approach to movement to an integrated approach so all modes of mobility throughout the community are integrated with each other.”

- Mayor Tara Veer

The City of Red Deer is getting a real-time look at how economic progress can impact physical activity. As a major center of Canada’s booming oil and gas industry, the city is expecting rapid growth in the coming decades. With expansion already taking shape, stress on existing resources and sprawl could fundamentally shift the way Red Deerians move. Realizing this, the City of Red Deer saw an opportunity to rethink their city’s design.

Red Deer partnered with Gehl Architects, consultants on improving the quality of urban life, and 8-80 Cities, a nonprofit focused on transforming cities into physically active places to work, move and play. The organizations conducted an Integrated Movement Study to better understand Red Deerians’ perspectives on driving, public transit, walking, and cycling.

When they asked 2,000 community members how they felt about Red Deer, they reported being highly satisfied. The reason? A major one is Red Deer’s trail system. That became the centerpiece of the city’s approach to planning. The outcome is the Mobility Playbook—a detailed document that lays out the City’s plan to: 1) Put pedestrians first, 2) Create a balanced network of streets that prioritizes different modes of transportation and uses, 3) Manage urban growth and maintain the natural landscape, and 4) Integrate active transportation and recreation within the existing infrastructure.

# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

- Mayor Veer is a champion for physical activity and encourages her communities to do the same. “If we’re going to talk about it, we have to live it.”
- The city sees itself as having a strong role to play in terms of grassroots influence to inspire change. For example, the city recently bid for and won the 2019 Canada Winter Games, the country’s largest multi-sport competition.
- The city’s strategic plan prioritizes making active transit and commuting options safer, more enjoyable and more accessible.
- An integrated transportation framework takes each area of design (roads, neighborhood design, sidewalks, trails and transit stops) and ensures they are designed to function together to support cyclists, pedestrians, transit uses and motorists.



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

- Red Deer’s 144 kilometers of trails were once difficult to use in winter. Now 21

kilometers of them are plowed and an additional 25 kilometers are maintained by the local cross-country ski club for skiing.

- A new sidewalk clearing policy standard ensures that sidewalks are usable to pedestrians throughout the year.
- The internal trail systems that run through neighborhoods used to be built independent of the existing trail system. Priority is being placed on connecting neighbourhood trails to the larger community trail network to ensure accessibility.
- Transit stops are now connected to existing sidewalks and trails. In some cases it is as simple as adding a few meters of new sidewalk and ensuring snow removal to maintain their accessibility in winter.



## DESIGN FOR PEOPLE

- Red Deer regularly invites citizens’ input on what they need and want as it relates to commuting and recreation options.
- Red Deer saw an opportunity to engage the public in its plans. They brought in international experts to speak on the subject and asked people, “What moves you?”
- People wanted safe alternatives to car travel, but the existing trail network didn’t maximize connections to on-street cycling opportunities. Adding those connections was piloted.

- Red Deer has programs in place to make physical activity programs accessible to those who can’t afford it.
- As part of an official charter, the city has made a priority of considering active transport in trail design, transit design and transportation design.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

- As part of a triad of cities that make up the strongest economic growth corridor in North America, Red Deer is beginning to partner with Edmonton and Calgary to think through how people move in between the three cities.
- Public policy changes have been implemented that enable physical activity, such as snow and ice control for sidewalk clearing, which now requires a three-day turnaround for the City. It was previously 10 days.
- The path has been eased for private-sector volunteers to improve options for physical activity (e.g. the cross-country club’s maintenance of trails during winter.)
- New neighborhoods must connect to existing trails.
- Securing the 2019 Canada Winter Games bid means new recreation infrastructure for Red Deer from grants from other orders of Government.

## THE RETURN

- The City is shifting the way it will do transportation planning in the future. People-oriented metrics will be determined to measure how safe, accessible and enjoyable their transportation choices are.

- Their investment in a complete and interconnected network that is safe, well-maintained, and well-designed for the diversity of ages and skill levels, and that will contribute to improved physical health and social well-being. They will measure Red Deer’s network to understand the connection between the investment and the potential

increase in transit ridership, and the use of the network to walk or cycle to school and work.

- The shift is already visible. Red Deer is an active city and is positioned to become even more so.



# BRISTOL (U.K.)

ONE OF THE GREENEST CITIES IN  
EUROPE AIMS TO BE THE MOST LIVABLE

## POPULATION

437,000

## MAYOR

GEORGE FERGUSON

## CATALYST

ANTICIPATED POPULATION GROWTH  
RATE PROMPTS REFLECTION ON HOW  
NEIGHBORHOODS AND TRANSIT  
ARE DESIGNED



ONCE BRISTOL MADE IT EASIER TO WALK AND CYCLE THAN TO DRIVE, EVERYONE DID



WHEN PHYSICAL ACTIVITY BECOMES PART OF THE CULTURE, PEOPLE DON'T SEE ANY REASON TO AVOID IT

"Bristol is growing. People move here because they are attracted by what they see as a better quality of life. I want Bristol to continue to be a place where living healthy, happy and safe lives is the shared aspiration for every citizen."

- Mayor George Ferguson

In 2012, the citizens of Bristol did something they had never done before. They voted in the first democratically elected mayor in the city's history. In taking on the role, Mayor George Ferguson secured Bristol's designation as European Green Capital for 2015. At the same time, he knew more could be done.

An architect by trade, Mayor Ferguson has a unique understanding about the role of the built environment on people's lives. He also knew that Bristol faced significant problems with congestion, contributing to lost productivity and high pollution costs. Continued growth exacerbates the problem. He also saw that people in the city's wealthiest neighborhoods were expected to live 10 years longer than people in the city's poorest neighborhoods.

His solution is to create a vision for Bristol that is healthier for all citizens. When it comes to building physical activity into daily life, Bristol has some opportunities that other cities do not. To start, one-third of Bristol's area is dedicated to green or blue open space. This presents tremendous opportunities for recreation and active transport. Bristol also has a passion for fun, which creates an environment that is well-suited for innovation in developing its activity options. Finally, Bristol was already well on its way to becoming an active transport leader with a heavy focus on walking and cycling at the time Mayor Ferguson was elected.

# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

- Mayor Ferguson has publicly announced his commitment to “significant investment in the urban environment” to promote active travel choices.
- The mayor cycles for recreation and rides to work daily.
- A 10-year plan aims to make “walking in the city easier, safer and more pleasant for everyone.”
- The city council’s website publicizes walking routes that are already available.
- The Mayor’s team is conscious about the importance of language, saying, for example, “We don’t close roads. We open streets to people.”
- City staff includes a team of public health experts (one with a transport background) who are responsible for embedding physical activity and other health impacts into various city departments.
- Public health experts were engaged in the development of Bristol’s transport strategy, ensuring that activity is built in from the beginning. This includes the city’s first cycling strategy (launched in 2014), which aims to make cycling a safer, simpler, more attractive option.
- To build awareness of the evidence base, the Bristol City Council publishes one-page, user-friendly summaries of academic research related to active cities and distributes them to all transport planning staff and subscribers from other departments.



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

- A highway running through the middle

of a town square was restored to walking and cycling paths.

- The city is rolling out 20 mph speed limits on all residential streets and a significant percentage of business district streets.
- Bristol Health Partners is a collaboration of researchers, health care providers and city officials to evaluate city planning and proposals through a health lens. The partnership also ensure that information on health-related issues like physical activity is delivered by physicians and public influencers.
- Cycling is heavily promoted and route maps, events, bike recycling, and cycling clubs are widely available on the city’s Better By Bike website.
- Volunteers are invited to lead public walks and cycling events, which are promoted by the city.
- Resources for safe walking routes are readily available.
- Bristol has a formal Exercise Referral Programme through which physicians refer patients with moderate to serious conditions to appropriate physical activity programs that are hosted at various fitness centers throughout the city.



## DESIGN FOR PEOPLE

- Bristol’s citizens are encouraged to lead public-private collaborations to identify design solutions that work best for people.
- The “Make Sunday Special” program closes streets in the city center to vehicles and opens them up to various forms of play—from cycling festivals to a 95-meter public water slide for anyone to use.
- Bristol commissions research on the attitudes and behaviors of citizens, particularly as they relate to new interventions such as 20 mph speed limit.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

- The city is investing in a low-emission metrobus system and plans for lower-emission automobile use.
- With an aim to double the number of cyclists by 2020, Bristol is creating new cycling infrastructure and providing safe cycling training to those who need it.
- Bristol has a permit system in place to allow ordinary citizens to apply for a “Temporary Play Street Order” that closes streets to play on a one-time or regular basis.
- The city has installed 27 “trim trail exercise stations” in city parks. These include simple equipment like pull-up bars, hurdles and sit-up bars that anyone can use free of charge.

## THE RETURN

- More people in Bristol commute to work by bicycle or on foot than in any other Local Authority in England and Wales
- The Bristol-Bath path boasts approximately 2 million users/year
- Cycling increased 94 percent between 2001 and 2011 as the city boosted cycling infrastructure
- Walking to work increased by 40 percent between 2001 and 2011
- Cost-benefit analysis (based on WHO Health Economic Assessment Tool) shows a 4:1 ratio for walking and cycling schemes—considered very high value for money

# ADELAIDE (AUSTRALIA)

**BY 2038, THE NUMBER OF TRIPS TO AND AROUND ADELAIDE IS EXPECTED TO INCREASE BY 42 PERCENT**

## POPULATION

CITY: 22,200

STATE: 1,685,700

## MAYOR

LORD MAYOR MARTIN HAESE

## CATALYST

THE POPULATION IS EXPECTED TO MORE THAN DOUBLE TO 50,000, AND AN ADDITIONAL 50,000 WORKERS ARE EXPECTED TO MAKE A LIVING IN ADELAIDE. THE CITY SEES THE NEED TO MANAGE THE INCREASED GROWTH, AND ACTIVE TRANSPORTATION IS SEEN AS A CRITICAL SOLUTION.



**VISIBLE SIGNAGE PROMOTES PHYSICAL ACTIVITY THROUGHOUT THE CITY**



**MAKE PUBLIC SPACES AVAILABLE TO COMMUNITY CLASSES AND PROGRAMS THAT ENCOURAGE PHYSICAL ACTIVITY**

Adelaide has consistently been ranked one of the world's most livable cities. However, recent sustained growth and its role as Australia's most car-reliant city make Adelaide particularly susceptible to physical inactivity. The city's leadership intends to make sure that doesn't happen. Adelaide's growth strategy revolves around making the city safer, more enjoyable and a healthier place to live, work and play. The approach to transport and mobility is focused on providing alternative modes of transport to the private car – walking, cycling, and improved public transport. The result is Adelaide's *Smart Move Strategy*, a ten-year plan (2012-2022) to create a more enjoyable, accessible city that moves.

Adelaide is an ideal city for walking, running and cycling. It's relatively flat, has a strong street grid system, is easy to navigate, and has a semi-arid climate

which provides warm weather throughout most of the year. To maximize these existing assets, Adelaide City Council ("Council") has undertaken several projects to understand how public space is used now and how it can be increased in the future. For example, the internationally renowned Gehl Architects was commissioned to undertake the *Public Spaces and Public Life* study in 2011. The study focused on the city's public spaces—their strengths and weaknesses—and provided ideas to be considered and tested as part of future projects.

The Gehl Architects study investigated the usage of city streets, counting both vehicle activity and foot traffic. Council was able to compare this data with similar data collected in 2002 to track movement hotspots in the city.

Comparing 2002 to 2011 overall there was:

- An increase of 15 percent daytime (weekday) pedestrian traffic
- An increase of 20 percent pedestrians on Saturdays
- An increase of 43 percent "staying activity" – that is, people staying longer in the city for recreation and play.

The Urban Design Framework—a partnership project between the State Government and Adelaide City Council—has been in progress since late 2013 and will result in a design guide for the City of Adelaide that covers all public spaces. The Urban Design Framework includes considering the design of everything from footpath materials to trees and greening, and how to transform public spaces into accessible, attractive and easy to get around on foot or by bike.



# HOW THEY'RE DOING IT



## PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

Physical activity and active design are prioritized across multiple city design and planning documents including the transport and urban design frameworks. Since *Smart Move* was developed in 2012, the Council has worked closely with the State Government on several projects to make Adelaide more active, vibrant and accessible by bike and walking. Projects have included both infrastructure and travel behavior-change initiatives.

The Council also makes a priority of fun activity programs to engage the private sectors. For example, Tour De Work (which is now known as Love to Ride) is a three week long competition to see which work place can encourage the most staff to cycle for 10 minutes whether it be for recreation or commute.



## MAKE EXISTING RESOURCES ACTIVE RESOURCES

Many of Adelaide's solutions focus on making it easier and more enjoyable for people to engage in active transport. Some of these solutions include the addition of countdown timers at cross-walks, contra-flow bike lanes, bike boxes, reduced pedestrian waiting times at intersections and pedestrianization of busy streets.

To encourage people to explore Adelaide by foot, the City Council is rolling out wayfinding signage throughout the city and Park Lands to provide detailed information on walking distances and routes around the city.

An important part of the active travel strategy has been to improve bicycle safety. In 2014, Adelaide opened its first protected bicycle paths along the Frome Street thoroughfare. The paths are well-lit and include improved road crossings and landscaping. In addition, the city has improved 6km of new or improved bike lanes and installed 19 bike boxes (painted bicycle-only areas at intersections designed to improve visibility and awareness).

One of Adelaide's most effective strategies involves working in partnership with the community to create physical activity opportunities within the city through the Active Ambassador program. #ActiveAmbassador gets people moving by providing support and incentives for sporting organizations and individuals to deliver free and low cost exercise and fitness activities in the city. Examples include the Women's Recreational Running Network which boasts around 300 member and utilizes the city's beautiful Park Lands; and partnerships with established city fitness providers to hold fitness events in the city squares and surrounding Park Lands. In addition, local celebrities are encouraged to become active ambassadors by promoting these activities in the City through social media channels such as Facebook and twitter using #activeambassador.



## DESIGN FOR PEOPLE

Adelaide's *Urban Design Framework* and *Smart Move Strategy* focus on making it easier to move through the city. This includes better opportunities for walking and cycling, as well as more accessible public transport. Streets are being designed with non-drivers in mind. One high-impact solution has been to provide the free City Connector bus service, in

collaboration with State Government, that loops around the CBD every 15 minutes and North Adelaide every 30 minutes.

Adelaide's Free Bike program allows anyone to hire a free bicycle and helmet during daylight hours from any of the 20 nodes and participating public and private organizations throughout the city.

The Splash Adelaide website connects residents to public events and activities, and provides social networking options to share physical activity experiences, as well as financial and other support to people with ideas on how to activate under used spaces in the city and North Adelaide. Splash Adelaide offers the opportunity to try out new ideas before undertaking the costly investment of a bricks and mortar business.

Other programs designed to encourage public engagement include the Be Active Corporate Cup (an event designed to improve workplace fitness over 16 weeks), the Access Adelaide Guide, which publicizes services and events for people with disabilities, and events such as Tour de Work which encourages city workers to give cycling a go in a fun, safe and interactive way by offering free bike skill courses and prizes and incentives for participation.



## CREATE A LEGACY OF PHYSICAL ACTIVITY

The *Smart Move Strategy* offers the opportunity to create real and lasting change in the city. If the key directions of Smart Move are achieved (that is, creating great streets and places for people; and making the City safer and easier to access for all users), a healthier and more physically active community are the result.

“For Adelaide to continue to be seen as one of the most livable cities in the world, it is essential that we continue to work towards an integrated transport system that considers the needs of all city users. We believe that the ability for residents, businesses, students, workers and recreational visitors to have access to a range of transport options will help to ensure that the city is a thriving hub of activity and creativity well into the future.”

- Lord Mayor Martin Haese

## THE RETURN

- Tour de Work participation increased 74% between 2012 and 2014
- 2014 Tour de Work resulted in a reduction of 36 tons of CO2 emissions in just three weeks
- Currently about 5,200 cyclists per week use the Frome Bikeway
- 20,250 bikes were hired in 2014 using Adelaide's Free Bike bike-share program
- 17,650 weekly passengers use the city's free City Connector bus services – a 38 percent increase over 2013
- The number of people cycling into and around the city each day has doubled over the last 10 years
- Adelaide won the 2013-14 State and National Heart Foundation Community Award in recognition of the Smart Move Strategy, the Bike Art Trail and the Bonython Park hub
- Currently over 10,000 cycle trips to and from the city take place by bicycle



KEEPING FACILITIES OPEN LATE EXPANDS ACCESS TO PHYSICAL ACTIVITY AND HAS BEEN ASSOCIATED WITH CRIME REDUCTIONS IN SOME CITIES





FUN, VISIBLE OPTIONS FOR EXERCISE AND PLAY CAN BE INEXPENSIVE WAYS TO CREATE A CULTURE OF PHYSICAL ACTIVITY

# 4

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## TOOLS & RESOURCES

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Fortunately, there's no shortage of guidelines and recommendations available to people who are interested in designing an active city. This section brings together some of the best resources.

We selected these particular tools and resources based on their ease of use, relevance across multiple geographies, fresh or innovative content and availability of practical recommendations.



# PRIORITIZE PHYSICAL ACTIVITY AS A SOLUTION

Practical guidance on integrating physical activity into overall city plans and being a visible champion.

## WORKING ACROSS SECTORS FOR HEALTH EQUITY

*By Dr. Karen Lee, Health+Built Environment Consulting, 2014*

**WHAT IT IS:** A report for the World Health Organization and Metropolis World Congress 2014 on what cities need to do to address 21st Century health needs and health care costs, including and especially creating healthy active cities, and how to do it effectively and equitably. From her experience as the inaugural and former Built Environment Director for NYC's Health Department, and her work with 40 cities globally to advance this work, Dr. Karen Lee shares lessons learned from the successful initiatives undertaken by health and non-health departments working together in cities such as New York.

**WHO IT'S FOR:** Mayors' offices, local state and national government departments in health, planning, transportation, parks, housing, aging, environmental sustainability, buildings and economic development, as well as private and community sector professionals working with cities and government departments.

**WHAT YOU'LL GET:** More examples of initiatives your cities can undertake now to create healthy and active cities, and details to help you start implementing them successfully.

## HOW TO CREATE AND IMPLEMENT HEALTHY GENERAL PLANS

*By Changelab Solutions, 2012*

**WHAT IT IS:** A toolkit that shows how public health advocates and urban planners can work together to integrate health promotion goals and strategies into master plans. While the document is written for city leaders in California, it is relevant to anyone responsible for overall city planning.

**WHO IT'S FOR:** Public health advocates and urban planners.

**WHAT YOU'LL GET:** Tools and sample questions to establish

your baseline, strategies for writing a healthy general plan, zoning and design recommendations, policies and standards and examples of project review checklists.

**ALSO CHECK OUT:** [Move This Way: Making Neighborhoods More Walkable and Bikeable](#) and [How to Use Redevelopment to Create Healthier Communities](#)—two guidebooks to help communities rethink and redesign for physically active citizens.

## TURNING THE TIDE OF PHYSICAL INACTIVITY

*By UK Active, 2014*

**WHAT IT IS:** A report on the scale and impact of the physical inactivity crisis in the UK. The report's findings contribute to a practical set of key recommendations for action by all sectors leading to the development of a national strategy on physical activity.

**WHO IT'S FOR:** National and local government authorities.

**WHAT YOU'LL GET:** UK data on the case for urgent action including analyses and rankings by region and high-level recommendations for national and local governments.

**ALSO CHECK OUT:** [Turning the Tide](#) webinar with an overview of the findings and recommendations included in the Turning the Tide report.

## TAFISA 3AC (ACTIVE CITIES, ACTIVE COMMUNITIES, ACTIVE CITIZENS)

*By TAFISA*

**WHAT IT IS:** An online resource that provides a wide range of information to become an active city or an active citizen.

**WHO IT'S FOR:** City leaders looking to make their community more active.

**WHAT YOU'LL GET:** Practical tools for communities to assess their baseline, recommendations and strategies for action, a place for networking and sharing of best practices and a certification process to become a TAFISA Triple AC Active City.

**ALSO CHECK OUT:** [SportCityNet](#), a partnership of 11 organizations and cities in the European Union that has released a toolkit with best practices and guidelines for creating an Active City strategy. Another great source of inspiration is TAFISA 3AC's [Good Practices](#) collection of case studies from holistic active cities of all sizes from around the world.



## MOBILITY PLAYBOOK

*By The City of Red Deer, Gehl Architects, and 8-80 Cities, 2013*

**WHAT IT IS:** The written outcome of Red Deer's Integrated Movement Study, a quantitative and qualitative effort to understand the type of city residents want to live in as the city grows.

**WHO IT'S FOR:** Though written as an informational resource for Red Deer residents and planners, the Playbook is a useful guide for anyone interested in how a smaller city is transforming itself in anticipation of rapid growth.

**WHAT YOU'LL GET:** A summary in "Ready, Set, Go" format that explains why Red Deer needs to become more mobile, opportunities and challenges and calls to action for existing players.

## COMMUNITY WELLNESS COMPREHENSIVE CITY-SCHOOL STRATEGIES TO REDUCE CHILDHOOD OBESITY

*By the National League of Cities, Institute for Youth, Education, and Families, and the American Association of School Administrators, 2010*

**WHAT IT IS:** A toolkit to support high-impact collaboration between city leaders and school districts on health issues that impact children.

**WHO IT'S FOR:** City leaders and school officials.

**WHAT YOU'LL GET:** A description of six cities' approaches to health and wellness initiatives in school districts, including descriptions of how these cities have promoted active travel, physical activity during and out-of-school and city-school coalitions to engage a broader group of residents. The report summarizes key success factors and lessons learned that can be replicated by cities around the world.



## UNLOCK EXISTING RESOURCES

How to make the most of what you already have. Ways to get an entire city moving.

## IMPROVING THE HEALTH OF LONDONERS TRANSPORT ACTION PLAN, EXECUTIVE SUMMARY

*By Transport for London, 2014*

**WHAT IT IS:** An overview of how London's transportation strategy aligns with core health objectives, including physical activity.

**WHO IT'S FOR:** Anyone with an interest in better understanding how a major city undertakes a citywide approach to healthier transportation planning.

**WHAT YOU'LL GET:** A detailed summary of the health-related actions and impacts (goals) set forth in London's transport plan.

**ALSO CHECK OUT:** **Better Streets Delivered**, a book of case studies on street improvement projects implemented by Transport for London.

## A HEALTHY CITY IS AN ACTIVE CITY, A PHYSICAL ACTIVITY PLANNING GUIDE

*By the World Health Organization - Europe, 2008*

**WHAT IT IS:** A planning guide for creating healthier, more active cities by integrating physical activity into the urban environment.

**WHO IT'S FOR:** City leaders.

**WHAT YOU'LL GET:** A step-by-step guide to creating a physical activity plan at the city level, tools for assessing a city's current state, checklists, case studies and external resources.

## LIVERPOOL ACTIVE CITY STRATEGY 2012-2017

*By the Public Health Department of Liverpool*

**WHAT IT IS:** A roadmap for engaging the people of Liverpool in the city's physical activity efforts.

**WHO IT'S FOR:** Developed for Liverpool agencies, private sector partners, program deliverers and the public, the Active City Strategy is also relevant to planners in other cities who are seeking program ideas, sample strategies and best practices.

**WHAT YOU'LL GET:** An update—following on the 2005-2010 strategy—on the state of physical activity in Liverpool, a summary of the city's priority areas of focus, goals and tactics, detailed descriptions of existing programs and roles and responsibilities of key stakeholders.

**ALSO CHECK OUT:** The WHO's [Intersectoral Action on Health in Urban Settings–Liverpool](#), a brief analysis of Liverpool's cross-sector approach.

## SHARED USE

*By Changelab Solutions*

**WHAT IT IS:** A primer on shared use and portal to specific resources.

**WHO IT'S FOR:** Government agencies, schools, faith-based organizations and program planners. Although designed for a U.S. audience, the resources are general enough to be relevant to other country contexts.

**WHAT YOU'LL GET:** A clear understanding of the basic concept of shared use, creative ideas for shared use and a connection to practical resources on creating agreements, liability and other resources.

**ALSO CHECK OUT:** In the United States, shared use opportunities are often influenced by local and state policy. Check out [ChangeLab's state-specific resources](#) to access guidance for specific states.

## MANUAL OF PROJECTS AND PROGRAMS FOR ENCOURAGING CYCLING IN COMMUNITIES

*By EMBARQ Brasil with the Institute of Architects of Brazil, 2014*

**WHAT IT IS:** A manual with concepts for infrastructure projects and support programs to make cycling safer, more accessible and enjoyable in communities.

**WHO IT'S FOR:** City leaders and transportation professionals.

**WHAT YOU'LL GET:** A summary of best practices and lessons learned to inform.



## DESIGN FOR PEOPLE TO BE ACTIVE

Tools and advice to design urban environments in ways that are certified on making people's lives better.

## HOW TO INCREASE BICYCLING FOR DAILY TRAVEL

*By Active Living Research, 2013*

**WHAT IT IS:** A Brief written in non-technical language summarizing the available evidence about strategies for increasing bicycling levels.

**WHO IT'S FOR:** Anyone with an interest in the development of bicycle facilities and increasing physical activity.

**WHAT YOU'LL GET:** Key research findings and recommendations on how to increase biking using on-street bike lanes, off-street bike paths, and other bicycling infrastructure and educational programs as well as related policy implications.

**ALSO CHECK OUT:** The [Active Living Research](#) program website, which features additional briefs, infographics and other resources summarizing the evidence base on active cities.

## INTERSECTIONS HEALTH AND THE BUILT ENVIRONMENT

*By the Urban Land Institute, 2013*

**WHAT IT IS:** A globally relevant reference book for designing for and building healthy spaces that are available and accessible to all.

**WHO IT'S FOR:** Anyone with an interest in land use and development (e.g., investors, developers, planners, public officials).

**WHAT YOU'LL GET:** The global case for action, best practices from around the world and a summary of the benefits and opportunities associated with smarter design. The report also includes a section on "Adding it All Up," a quick list/ summary of design considerations.

**ALSO CHECK OUT:** [Ten Principles for Building Healthy Places](#) and [Planning and Public Health: Creating Healthier Communities Through Integrative Practice](#) are two additional tools from ULI that provide insights on creating healthier environments.

## **ACTIVE DESIGN GUIDELINES PROMOTING PHYSICAL ACTIVITY & HEALTH IN DESIGN**

*By the City of New York, 2010*

**WHAT IT IS:** New York City's leadership believes the design of the built environment can either promote or prevent physical activity. The Active Design Guidelines draw on academic research and best practice examples to provide architects and urban designers with strategies to create more active buildings, streets and spaces.

**WHO IT'S FOR:** Architects, urban designers and urban planners; city departments and policymakers.

**WHAT YOU'LL GET:** Practical strategies, checklists and recommendations for designing cities/ buildings for activity. The document also provides examples and lessons learned from New York's experience.

**ALSO CHECK OUT:** The Urban Design Checklist and the Building Design Checklist are at-a-glance summaries of design recommendations for an active city.

## **CITY HEALTH CHECK**

*By the Royal Institute of British Architects, 2013*

**WHAT IT IS:** A report with design guidance for healthier cities.

**WHO IT'S FOR:** Local authorities and developers.

**WHAT YOU'LL GET:** Practical recommendations on healthy city design based on a survey of residents of major English cities, along with case studies of successful built environment interventions.

## **HEALTHY BY DESIGN SA, A GUIDE TO PLANNING ENVIRONMENTS FOR ACTIVE LIVING IN SOUTH AUSTRALIA**

*By the National Heart Foundation of Australia, 2012*

**WHAT IT IS:** A summary of active design objectives and active design considerations by setting (e.g., walking/cycling, streets, open spaces, parks, etc.)

**WHO IT'S FOR:** City planners, engineers, developers, architects, health planners and local government. While the resource was developed for those working in South Australia, it is a useful template for planners in other cities as well.

**WHAT YOU'LL GET:** Design considerations by setting and a matrix of design considerations in an at-a-glance format.

**ALSO CHECK OUT:** Healthy By Design's guide to planning environments for active living in Victoria, Tasmania, and Western Australia, and Healthy Spaces and Places, a resource

for local government, planning, design and health professionals, and developers.

## **ACTIVE BY DESIGN, DESIGNING PLACES FOR HEALTHY LIVES**

*By Design Council, 2014*

**WHAT IT IS:** An introduction to a program in the UK on creating places in which physical activity is an integral part of everyday life.

**WHO IT'S FOR:** Planners, designers, city managers, health professionals and anyone looking to help make buildings, streets and neighborhoods more active.

**WHAT YOU'LL GET:** Quick "killer facts," reasons for optimism and changes that can be made today.

**ALSO CHECK OUT:** The Active by Design program website, which features news and opinion, facts, ways to get involved and additional resources.

## **PHYSICAL ACTIVITY AND THE ENVIRONMENT: NICE GUIDELINES**

*By the National Institute for Health and Care Excellence (NICE), 2008*

**WHAT IT IS:** A written resource on how to improve the built environment to encourage physical activity.

**WHO IT'S FOR:** UK National Health Service and other professionals who are responsible for the built or natural environment.

**WHAT YOU'LL GET:** A summary of the evidence base and rationale; specific recommendations for strategy, planning, policy and implementation of priorities in an active built environment.

**ALSO CHECK OUT:** Walking and Cycling: Local Measures to Promote Walking and Cycling as Forms of Travel or Recreation and Promoting Physical Activity in the Workplace—practical, evidence-based guidance for city planners and practitioners.



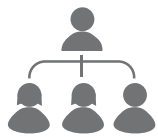
## **ECONOMIC BENEFITS OF OPEN SPACE, RECREATION FACILITIES AND WALKABLE COMMUNITY DESIGN**

*By Active Living Research*

**WHAT IT IS:** A brief written in non-technical language summarizing research on the different ways that walkability, parks, and open spaces can bring economic benefits to a community.

**WHO IT'S FOR:** Policymakers, developers and advocates.

**WHAT YOU'LL GET:** Key research findings and recommendations on how compact, walkable developments and recreation areas and parks located in metropolitan areas provide economic benefits to residents, municipal governments and private real estate developers.



## **BUILD A LEGACY OF MOVEMENT**

How to make changes that last from one administration to the next.

## **FROM HERE TO THERE**

*By Embarq*

**WHAT IT IS:** A guidebook on how to use market research and the principles of consumer marketing to encourage increased use of public transport.

**WHO IT'S FOR:** Primarily the transportation sector, but it's also a unique point of view that leaders from other sectors can benefit from.

**WHAT YOU'LL GET:** A primer on marketing and communications for the transportation sector and practical recommendations for rethinking the competition, branding, marketing, communications, public relations and consumer education.

**ALSO CHECK OUT:** Embarq's varied projects around the world related to issues like finance, rapid transit, fuel efficiency, pollution reduction and bicycle safety. For up-to-the-minute ideas and stories about work being done in cities around the world, check out The City Fix (a collaboration of Embarq and the World Resources Institute).

## **MOVE THIS WAY, MAKING NEIGHBORHOODS MORE WALKABLE AND BIKEABLE**

*By ChangeLab Solutions*

**WHAT IT IS:** A guidebook for developing city codes that enable more active cities and towns.

**WHO IT'S FOR:** Anyone who influences city policy, primarily in the United States.

**WHAT YOU'LL GET:** Specific examples of pedestrian and cycle-friendly city zoning and subdivision codes/policy and tangible guidance on how to update existing codes.

**ALSO CHECK OUT:** This Land Is Our Land: A Primer on Public Land Ownership and Opportunities for Recreational Access.

## **SOCIAL, ENVIRONMENTAL AND ECONOMIC IMPACTS OF BRT SYSTEMS**

*By Embarq*

**WHAT IT IS:** A synthesis of existing literature and data supporting the expansion of BRT in transport solutions.

**WHO IT'S FOR:** The transport sector globally.

**WHAT YOU'LL GET:** The economic case for BRT systems in cities as a cost-effective and sustainable form of mass transit, practical examples and outcomes of four diverse case studies.

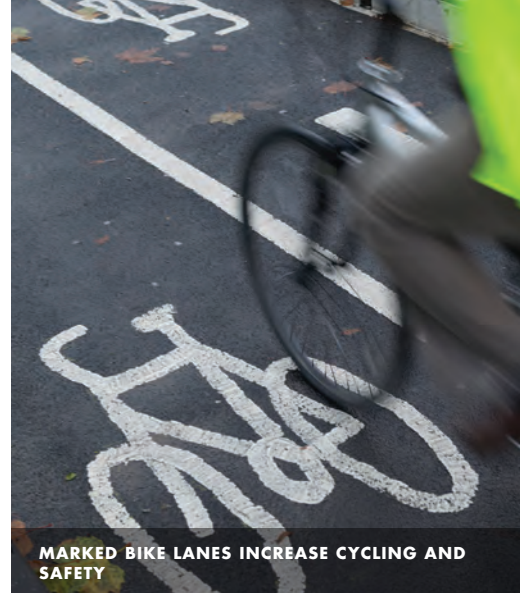


WHEN ACTIVE DESIGN IS A PRIORITY, PHYSICAL ACTIVITY CAN BE BUILT INTO NEARLY ANY TYPE OF CITY INFRASTRUCTURE OR TOPOGRAPHY





RECREATION OPTIONS SHOULD BE AVAILABLE TO PEOPLE OF ALL AGES



MARKED BIKE LANES INCREASE CYCLING AND SAFETY



SAFE SIDEWALKS ENABLE PEOPLE TO WALK AS A PRIMARY MODE OF TRANSPORTATION



ENCOURAGE ACTIVE COMMUTING TO THE WORK PLACE BY OFFERING SAFE PARKING OPTIONS FOR BICYCLES



PROVIDING A VARIETY OF COMMUNITY PROGRAMS CREATES BETTER EXPERIENCES FOR ALL



# ONE VISION, TWO ASKS

## WE ARE DESIGNED TO MOVE

More than 80 organizations from around the world have come together in support of Designed to Move, a collaborative framework for action that outlines an approach to increasing physical activity levels globally. The framework is oriented around two simple **ASKS** that any individual, organization, company or government can take on to significantly alter social, economic and health outcomes for the better.

### VISION

**FUTURE GENERATIONS RUNNING, JUMPING AND KICKING  
TO REACH THEIR GREATEST POTENTIAL**

### ASK 1

#### **CREATE EARLY POSITIVE EXPERIENCES FOR CHILDREN**

There are plenty of places throughout any city that can be opened up to activity, for kids along with everyone else. Maybe it's a town square that can host group events. Perhaps the traffic lanes are already being repainted so bike lanes would be a negligible-cost addition. Or open up the school with a field and running track.

### ASK 2

#### **INTEGRATE PHYSICAL ACTIVITY INTO EVERYDAY LIFE**

Economies, cities, cultures and norms can be shaped and designed to encourage and enable increased levels of physical movement. To ensure a better future for all, designing for it needs to become the norm.

These two **ASKS** come together by focusing on the large-scale solutions and areas of investment that have the best chance of changing the way people move.

This document focuses on designing active cities. The underlying premise—supported by a substantial base of research—is that an active city is a safer, healthier, more prosperous and environmentally sustainable city. In other words, an active city is a competitive city. The goal here is to encourage investment and focus to deliver as many of them as possible around the world.



OPENING UP WATERWAYS TO DIFFERENT KINDS OF MOVEMENT EXPANDS WAYS PEOPLE CAN GET ACTIVE



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## CITATIONS & ACKNOWLEDGMENTS

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This work draws up the scholarly evidence base and insights from experts around the world. Learn more about them [here](#).



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**Figure 2:** The Benefits Are Bigger Than You Think

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