# SECTION 1: STATEMENT OF PRIORITY OUTCOME A CLEANER AND HEALTHIER CITY

The Mayor has adopted the following six Goals to foster a cleaner and healthier City, which by definition is a more sustainable City. Each of these Goals will be furthered by encouraging personal and organizational responsibility for the environment and one's health through education, communication, behavioral change and engagement. Proposals that "move the needle" on these Goals will receive priority consideration for funding.

# SMART Goals

- 1. Decrease the number of alcohol and drug-related emergency visits.
- 2. Reduce health inequalities by decreasing preventable emergency visits for heart disease-related conditions.
- 3. Increase citizen satisfaction with the City's cleanliness.
- 4. Increase the percent of impervious surfaces treated for water pollutants.
- 5. Increase the amount of waste material re-used or recycled.
- 6. Improve air quality.

### **SECTION 2: SMART GOALS**

### Goal 1: Decrease the number of alcohol and drug-related emergency visits

An estimated 70,000 City residents are in need of substance abuse treatment, but only about 20,000 people receive these services each year. This unmet treatment gap carries tremendous costs in crime, lost productivity, family and community disruption, homelessness, and health care utilization. As reported in Baltimore's 10-year Plan to End Homelessness, at least 50% of the chronically homeless suffer from addiction and mental illness. According to a 2007 UMBC study of Baltimore City, the total inpatient and Emergency Department (ED) costs for opioid addiction diagnoses alone was over \$127 million per year.

According to 2010 data drugs and alcohol were a factor in nearly 12,000 emergency room visits in Baltimore City. Cases involving alcohol were more prevalent than drug related cases.



Source: Maryland's Health Services Cost Review Commission

### <u>Goal 2: Reduce health inequalities by decreasing preventable emergency visits for heart disease-related</u> <u>conditions.</u>

Outcome Budgeting

Heart disease, or cardiovascular disease, accounts for 25% of all deaths among City residents, and is a key contributor to racial gaps in life expectancy. While age, gender, and genetics are immutable, many of the other risk factors for heart disease – smoking, diabetes, hypertension, high cholesterol, obesity, and physical inactivity – can be changed. So can stress and excessive alcohol use that exacerbate these factors.

People with adverse consequences of uncontrolled cardiovascular risk factors, such as congestive heart failure, often seek emergency care prior to ever having a fatal heart attack or stroke. Data from the Maryland ESSENCE database, a real-time ED surveillance system based on a patient's chief complaint, demonstrates that heart failure and hypertension accounted for over 2,700 ED visits in fiscal year 2010. Early data from ED diversion programs from other parts of the country suggest reductions in preventable ED visits of 5-10%.<sup>6-10</sup>



Source: Maryland's Health Services Cost Review Commission

### Goal 3. Increase citizen satisfaction with the City's cleanliness.

A key component to a cleaner City is effective response to resident requests and complaints. There will never be enough City staff to monitor all of our streets and alleys at all times. We depend on our residents to be our "eyes and ears" and notify us of issues that need to be addressed. Timely response to these issues builds confidence in our government and strengthens our community partnerships and support.



Source: Baltimore Citizen Survey

### Goal 4: Increase the percent of impervious surfaces treated for water pollutants.

Baltimore is striving to achieve healthy water quality levels by 2020 in accordance with the federal Clean Water Act and the Chesapeake Bay Program goals. However, impervious surfaces concentrate and increase the volume of rain water that enters our streams during storms, causing stream bank erosion and pollutant discharge into the harbor and bay. Storm water born pollutants include nitrogen, phosphorous, bacteria, sediment and trash. In addition, antiquated portions of Baltimore's sewer system overflow during heavy storms and contribute to pollution. Local governments are increasingly looking toward low cost, non-structural stormwater management strategies such as trees and greening to reduce the cost of constructing stormwater control infrastructure. The indicator for this goal is under development.

### Goal 5: Increase the amount of waste material re-used or recycled.

There really is no such thing as throwing something "away." Waste material ends up somewhere – in a landfill, our waterways or other unsustainable areas. By diverting material away from the waste stream and into recycling and re-use programs we will reduce the environmental and monetary costs of landfill maintenance while we clean our environment and create jobs. For every 10,000 tons of waste recycled per year, 26 jobs are created compared to 1 job for every 10,000 tons per year disposed of at traditional landfills.<sup>15</sup>



Source: Baltimore Department of Public Works, Solid Waste Division

### Goal 6: Improve air quality (as measured by the number of asthma-related emergency visits).

The number and severity of asthma cases are the best measures of air quality we have. This health ailment can be directly linked to air quality elements such as ground level ozone in outdoor environments and dust, mold and lead in indoor environments. The National Heart, Lung, and Blood Institute (NHLBI) considers control of environmental factors an essential component of effective asthma management. The environmental factors include inhalant allergens, both indoor and outdoor, occupational exposures, and irritants, including pollutants such as outdoor particulate matter, nitric oxide, sulfur dioxide, and ground-level ozone. Studies demonstrate strong associations between high outdoor pollutant levels and increased ED visits for asthma, with 13-15% of the variance in these visits related solely to elevated ozone levels.<sup>11-12</sup> In 2004, based on data from the Maryland Health Services Cost Review Commission (HSCRC), Baltimore City experienced 12,259 asthma-related ED visits, or 192 visits per 10,000 residents.<sup>13</sup>



Source: TreeBaltimore, Department of Recreation & Parks

Currently, 27% of Baltimore's land is covered by the most efficient air cleaning machines: trees. Baltimore's urban forest helps reduce air pollution and urban temperatures, reducing the heat island effect. A robust tree canopy functions as 'green infrastructure', reducing the need and expense of grey infrastructure to manage air (and water) resources. Based on strong evidence, the NHLBI also recommends avoidance of allergens through a multifaceted, comprehensive approach, recognizing that "individual steps alone are generally ineffective."<sup>14</sup> Baltimore City can measure the effect of interventions designed to improve indoor and outdoor air quality by consistently tracking asthma-related emergency visits, using 2009 as the baseline, and accounting for other factors known to exacerbate asthma.



Sector	Tons of Co <sub>2</sub> e
Industrial	1,953,028
Transportation	1,183,046
Commercial	1,990,610
Residential	2,080,919
Waste	209,215
Total	7,416,818

Source: Baltimore Office of Sustainability Updated every four or five years

#### **SECTION 3. STRATEGY MAP**



### **SECTION 4: SUGGESTED STRATEGIES**

### Goal 1: Decrease the number of alcohol and drug-related emergency visits

- We seek proposals to connect City residents suffering from addiction with effective treatment through outreach, education, and proactive linkage.
  With the recent addition of outpatient substance abuse treatment services to all Medicaid benefits, for the first time in years, the City has treatment capacity. Proposals that take advantage of motivational moments for people with addiction, through the use of nontraditional settings, approaches, and partnerships, are encouraged.
- 2) We seek proposals that increase retention in substance abuse services, particularly for City residents also dealing with chronic homelessness. Retention in substance abuse services is recognized as the best predictor for recovery. Examples of evidence-based interventions that increase retention include buprenorphine, peer support services, and assertive community treatment.
- 3) We seek proposals to decrease relapse to drug use among City residents by increasing access to recovery support services, including clean, safe, and affordable supportive housing. The chronic, relapsing nature of addiction calls for treatment to be coupled with strong recovery support services. Lack of safe housing often impedes sustained recovery, particularly for homeless individuals and those early in the recovery process. Proposals should consider supporting models such as Housing First and partnering with entities such as the Baltimore Area Association for Supportive Housing (BAASH).
- 4) We seek proposals that increase integration of services by primary care, mental health, and substance abuse service providers for City residents suffering from addiction. Individuals with addiction often seek hospital care for significant co-morbid medical and mental health conditions either precipitated or exacerbated by drug use. Health care reform emphasizes comprehensive, integrated care as the most effective approach to addressing complex chronic diseases and reducing health disparities.

## <u>Goal 2: Reduce health inequalities by decreasing preventable emergency visits for heart disease-</u> related conditions.

 We are seeking proposals that increase access to healthy and nutritious foods for all citizens, particularly for those vulnerable populations lacking transportation, living in poverty and those who are disabled. The Baltimore City Food Policy Task Force's final report of December, 2009 outlines ten recommendations for creating demand and access to healthy foods throughout Baltimore. Proposals should reference and consider these strategies.

- 2) We are seeking proposals to reduce the prevalence of smoking by City residents by enhanced smoking cessation programs, enforcement and education.
- 3) We are seeking proposals to help reduce obesity by increasing the physical activity levels of Baltimore youth through exercise, recreation and other activities. Childhood obesity is a significant risk factor for the early development of diabetes and heart disease. Physical activity, in combination with diet modifications, is recognized as a more effective weight loss approach than diet alone. Proposals should demonstrate strong partnerships with agencies that target youth.
- 4) We are seeking proposals to reduce overall salt intake by City residents through government, business, and community programs. The Baltimore City Salt Reduction Task Force in 2009 recommended increasing public awareness of the health risks associated with excessive salt intake and suggested ways for food establishments and government agencies to reduce City residents' exposure to salt. Proposals that demonstrate strong partnerships in efforts to reduce resident salt intake are encouraged.

### Goal 3 : Increase citizen satisfaction with the City's cleanliness

- We are seeking proposals that improve City agencies' ability to respond to 311 calls and to improve the organized system of maintenance of City land. This may include better training, better equipment, changes in policies related to adopting lots and/or closer partnerships between agencies responsible for different elements of maintenance.
- 2) We are seeking proposals that foster consumer and commercial education regarding littering/dumping. This should include education about the true costs of littering and dumping, both environmentally and operationally. It may also include information regarding how to access services, including enforcement of the building code, sanitation code and littering/dumping prohibitions.
- 3) We are seeking proposals that capitalize on volunteer programs to increase residents' participation in programs to clean and green their neighborhoods.

### Goal 4: Increase the percent of impervious surfaces treated for water pollutants

- 1) We are seeking proposals that reduce the level of trash in our watersheds through proven operational systems such as street sweeping, and new technologies such as trash interceptors.
- 2) We are seeking proposals that reduce chemical and nutrient pollutants through greening initiatives such as tree plantings, vegetating vacant lots, installing green roofs and building bio-retention facilities.
- 3) We are seeking proposals that reduce the introduction of sediment into our waterways through stream restoration and control of water volume during storm events.

- 4) We are seeking educational and incentive proposals that engage Baltimore's residents and visitors in the campaign for cleaner water and a cleaner City.
- 5) We are seeking proposals that increase the number of inspections and level of enforcement for Baltimore's National Pollution Discharge Elimination System (NPDES) permit.

### Goal 5: Increase the amount of waste material re-used or recycled.

- 1) We are seeking proposals that increase the percentage of household waste recycled.
- 2) We are seeking proposals that increase the percentage of business and government waste recycled, including material such as office paper, office furniture and equipment such as computers, printers, etc.
- 3) We are seeking proposals that increase the percentage of construction and building materials recycled/reused. Building materials include elements such as concrete, brick, wood and metal.
- 4) We are seeking proposals that "use less and do more" by conserving energy and resources. The cheapest resources are the ones we do not use, producing near-term economic benefits in addition to long-term environmental benefits. Examples of proposals that conserve resources include green purchasing - buying only printers that do double sided printing; installing faucet-based water filters rather than purchasing bottled water; installing low maintenance, energy saving fixtures and furniture.

### Goal 6: Improve air quality

- 1) We are seeking proposals that increase the percent of Baltimore's tree canopy and support a healthy tree canopy.
- 2) We are seeking proposals that reduce greenhouse gas emissions in the City. Such reduction lowers heat island impacts, improves air quality and avoids rolling brown-outs caused by excess energy demand. Proposals that convert to a more efficient fleet, reduce vehicle idling, encourage biking or car sharing, educate residents about the dangers of code red days and establish strategies to respond to pollution and heat related emergencies are encouraged.
- 3) We are seeking proposals that increase healthy indoor air quality by reducing industrial, commercial and residential dust, preventing mold, controlling pests, utilizing health conscious weatherization, and promoting consumer education. Proposals should seek to enhance complaint response and resolution to concerns received through the City's Customer Service Request (311) system. Proposals should link resources provided in different programs. For example, weatherization should partner with programs that tackle health issues (mold, pests, lead dust, etc) in order to provide better services with greater efficiency.

### **SECTION 5: CRITERIA**

**Value**. Proposals that demonstrate good value tell us what we can expect to be delivered per dollar spent. Value is a measure of both efficiency and the effectiveness of a service.

#### Strength of alignment with the Priority Outcome, Priority Indicators, and strategies.

**Innovation.** Innovative proposals demonstrate new solutions or the degree to which the service improves or re-engineers the way a service is currently delivered. Even high-value services as they currently are delivered have areas for improvement.

**Multiple Priority Outcomes.** We seek proposals that demonstrate the ability to address multiple Priority Outcomes concurrently.

**Leverage.** We seek proposals that demonstrate the ability to leverage other funds or resources for service delivery, and/or collaborate with other internal or external entities. Partnerships can also be with neighborhood groups or other non-service providers.

**Evidence-based.** We seek proposals that deliver a service that is proven effective through empirical data or professional best practices. This can be an agency's data gathered through CitiStat or some other performance measurement effort, or reliable data gathered by another organization.

**Part of a Strategic Plan.** We seek proposals that advance an existing or emerging strategic plan. Strategic Plans outline clear goals and objectives with specific action items, funding sources, individual roles, and time lines. Examples include the Sustainability Plan, Comprehensive Master Plan, Ten Year Plan to End Homelessness, Birth Outcomes Plan, etc.

**Customer Service Focus.** We seek proposals that focus on providing excellent customer service. Think of customers broadly and to include internal customers, such other City agencies or City staff members, and external customers, including citizens and users of City services.

### SOURCES

<u>Goal 1</u>

- 1. Parthasarathy S, et al., Association of outpatient alcohol and drug treatment utilization and cost: revisiting the offset hypothesis. Journal of Studies on Alcohol and Drugs. 2001;62(1):89-97.
- Nordlund D., Mancuso D., Felver B., Chemical Dependency Treatment Reduces Emergency Room Costs and Visits. Washington State DSHS, Research and Data Analysis Division, Olympia, WA. July 2004. <u>http://www.dshs.wa.gov/pdf/ms/rda/research/11/120.pdf</u>
- Palepu, A., et al., Substance abuse treatment and emergency department utilization among a cohort of HIV-infected persons with alcohol problems. Journal of Substance Abuse Treatment. 2003;25:37-42.
- Larimer, M., et al., Health Care and Public Service Use and Costs Before and After Provision of Housing for Chronically Homeless Persons with Severe Alcohol Problems. JAMA. 2009;301:1349-1357.
- 5. Friedmann, P. et al., Do Mechanisms that Link Addiction Treatment Patients to Primary Care Influence Subsequent Utilization of Emergency and Hospital Care? Medical Care. 2006;44:8-15.

### <u>Goal 3</u>

- 6. CHOICE Regional Health Network Emergency Department Care Coordination Program. Washington State, 2009. <u>http://wacmhc.org/documents/CHOICE%20presentation.pdf</u>
- Begley C. and Ramos C., Gateway to Care CHIP Education Project Evaluation: A Report for the Texas Health and Human Services Commission and Gateway to Care. 2008. <u>http://wacmhc.org/documents/Impact%20of%20Patient%20Navigators.pdf</u>
- 8. Wang C., et al., Cost and Utilization Analysis of a Pediatric Emergency Department Diversion Project. Pediatrics. 2005;116:1075-1079.
- 9. Michelen W., et al., Reducing frequent flyer emergency department visits. Journal of Health Care for the Poor and Underserved. 2006;17:59-69.
- Fedder D.O., et al., The effectiveness of a community health worker outreach program on healthcare utilization of west Baltimore City Medicaid patients with diabetes, with or without hypertension. Ethnicity and Disease. 2003;13:146.

### <u>Goal 4</u>

- 11. Romieu, I., et al., Effects of urban air pollutants on emergency visits for childhood asthma in Mexico City. American Journal of Epidemiology. 1995;141:546-53.
- 12. Cody, R.P., et al., The effect of ozone associated with summertime photochemical smog on the frequency of visits to hospital emergency departments. Environmental Research. 1992;58:184-94.
- 13. http://www.baltimorehealth.org/info/Asthma\_BaltimoreCity\_2008.pdf
- Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma. National Heart, Lung, and Blood Institute of the National Institutes of Health. Bethesda, MD. Publication No.:07-4051. August, 2007. <u>http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=asthma3</u>

### <u>Goal 5</u>

Note: Figures are based on interviews with select facilities around the country.
Source: Institute for Local Self-Reliance, Washington, DC, 1997.
From: <u>http://www.ilsr.org/recycling/recyclingmeansbusiness.html</u>

Outcome Budgeting