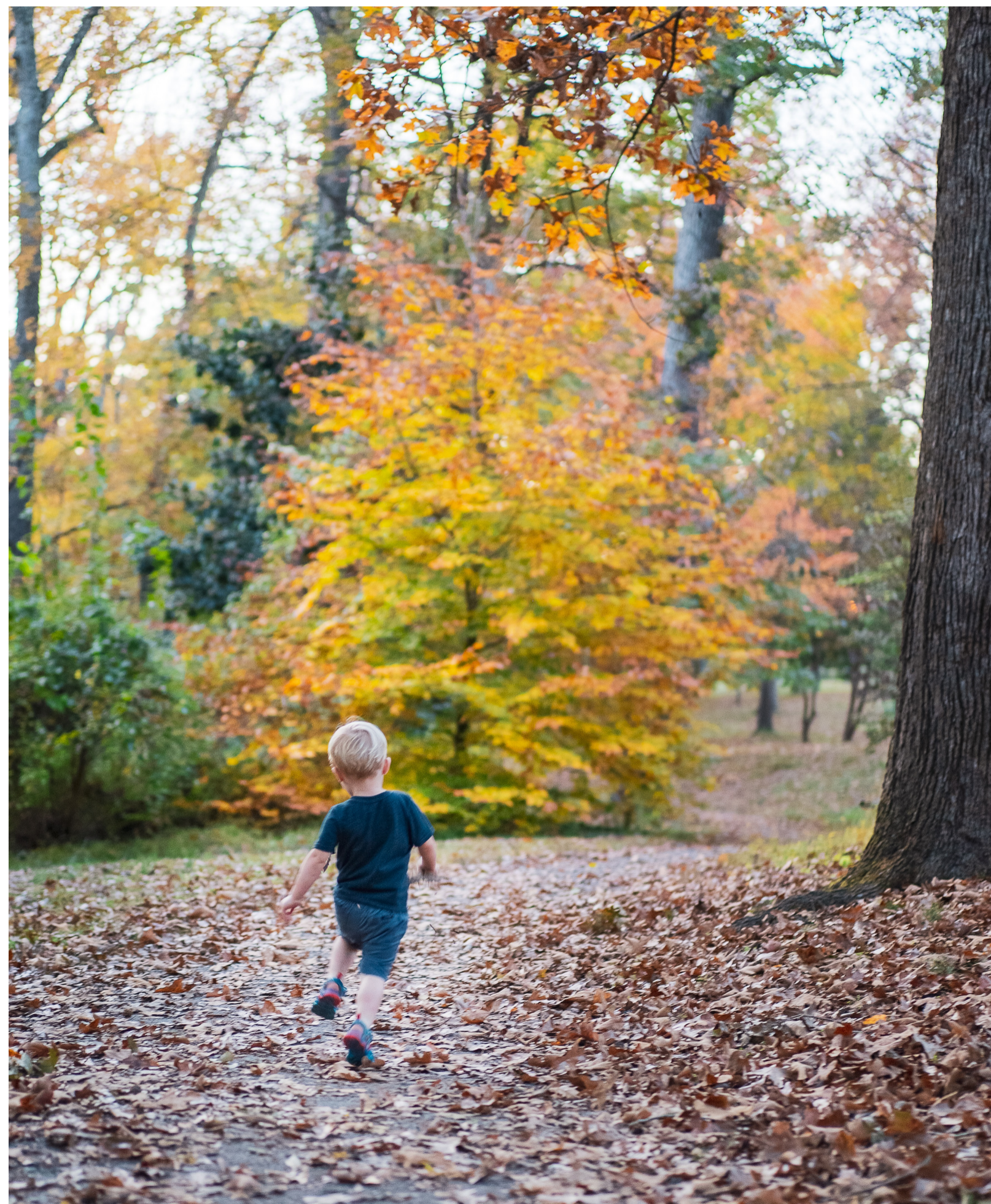




Health & Well-Being Attribute



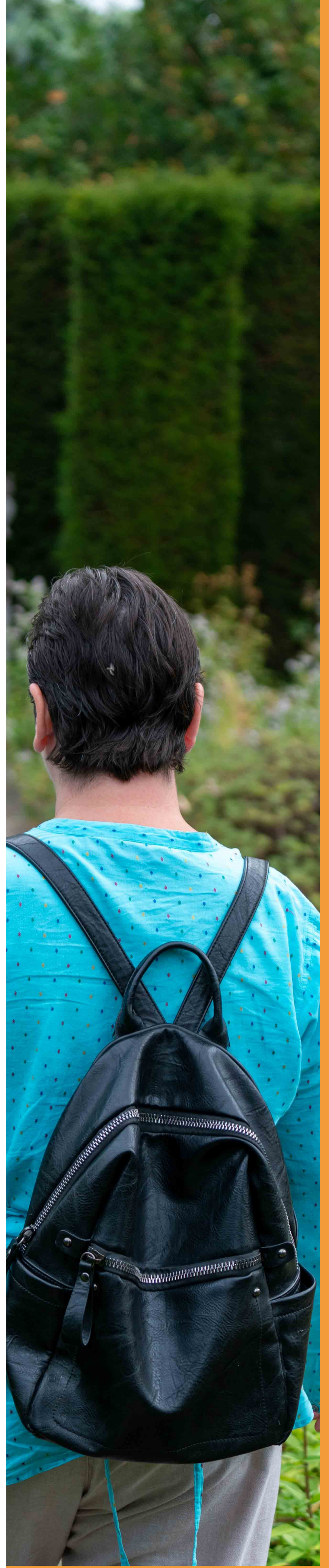
Garden Workbook:



**Climate &
Sustainability
Alliance**

Table of Contents

Introduction	1-2
Health Goal 1	3-4
Health Goal 2	5-7
Health Goal 3	8-11





Introduction

With the rapid growth of urbanization and the human population, public gardens offer refuge from the noise, pollution, and stress often associated with urban human activity. Natural environments affect human health and well-being both directly and indirectly. Public gardens provide opportunities for physical activity and stress relief, and are spaces for social interaction. Chronic stress, physical inactivity, and lack of social cohesion are three major risk factors for non-communicable diseases, and therefore public gardens are an important asset for a healthy lifestyle. Gardens have a unique way of reorienting us to the beauty of life and provide inspiration and tools for making positive changes.

Ensuring healthy lives and promoting the well-being for all at all ages is essential to sustainable development. The Health and Well-being Attribute focuses on how public gardens can make significant strides to address many different persistent and emerging health issues.

Establishing thoughtful health and well-being programming in a public garden setting can also leverage a discussion on sustainability: by taking care of our environment, our quality of life can improve.

This document lists the Goals and KPIs that have been identified as standards for gardens to better address this Attribute in their policy and practice. Please refer to this document as a workbook for what items gardens should try to prioritize (as it makes sense for your garden needs).

United Nations Sustainable Development Goals

The Public Gardens Sustainability Index is intended to share examples of how gardens are contributing to specific Sustainable Development Goals (SDGs) and to inspire gardens to advance their own programs to further the mission of their institution while connecting to local, national, and global sustainability efforts. This Index is a first step guide on how to “get started” implementing the SDGs from 2015. It aims to help gardens of all sizes and governance models understand the SDG Agenda, to start an inclusive dialogue on SDG implementation, and to prepare SDG-based local or national development strategies (or align existing plans and strategies with the goals).



Goal 2 seeks sustainable solutions to end hunger in all its forms by 2030 and to achieve food security. The aim is to ensure that everyone everywhere has enough good-quality food to lead a healthy life. Achieving this Goal will require better access to food and the widespread promotion of sustainable agriculture. This entails improving the productivity and incomes of small-scale farmers by promoting equal access to land, technology and markets, sustainable food production systems, and resilient agricultural practices.

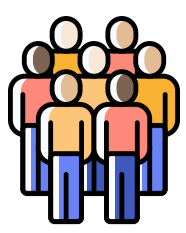


Progress in many health areas continues, but the rate of improvement has slowed and will not be sufficient to meet most of the Goal 3 targets. The pandemic is devastating health systems globally and threatens health outcomes already achieved. Most countries, in particular poor ones, have insufficient health facilities, medical supplies, and healthcare workers to meet the surge in demand.



For a list of relevant resources related to these SDGs and connections to botanical garden work, go to:

<https://www.publicgardens.org/sustainability-index/attributes/united-nations-sustainable-development-goals-health-wellbeing>



Health Goal 1: Commit to health and wellness best practices to establish a widespread culture of inclusion, diversity, and safety across all departments.

Key Performance Indicator (KPI)

a) Garden establishes health-related policies for staff and volunteers.

Outcomes

- a) Garden has a health and well-being committee/team with representation from as many departments as possible.
- b) Garden develops training/holds meetings for staff and volunteers that occur annually on the importance of health and well-being in the workplace.
- c) Garden performs annual building wellness assessment, including monitoring of air quality, spaces for respite/relaxation, and overall building health for staff and volunteers.
- d) Garden regularly communicates/promotes health and well-being related classes or events (races, challenges, yoga, etc.) to all staff and volunteers.
- e) Garden establishes mental and physical health policies to ensure staff and volunteers feel safe to take breaks, a day off, or discuss health issues with leadership staff or experts outside work hours.
- f) Garden follows guidelines and assessments established by nationally accredited wellness programs such as the American Heart Association, the Center for Disease Prevention, or others.
- g) Garden offers health insurance coverage to all full-time staff, and makes the same coverage available to part-time staff who meet eligibility standards for a reasonable fee (insurance to also cover mental health support).

Suggested Strategies



Provide mental health moments at staff or department meetings and share resources/services for therapy, health and well-being related classes or events (races, nature walks, yoga, meditation, social gatherings, etc.). Consider holding meetings outside or doing walking meetings with staff or volunteers either in a group setting or one-on-one. (Health.1.a).



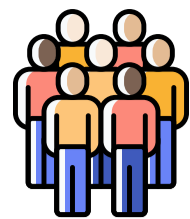
Find out if any staff or volunteers has an interest or skills (e.g., certification, etc.) in health and wellness and might want to lead an activity, training, or program for colleagues. (Health.1.a).



Follow guidelines and assessments established by nationally accredited wellness programs like the American Heart Association and the Center for Disease Prevention. There are also local government work site wellness programs your garden can participate in. For example, apply to be recognized by your local health department by making a commitment to practicing certain health standards at your workplace in exchange for recognition from the city or county government. There are resources that allow your garden to assess and set goals, and you get points and incentives from the city for reaching a certain level of certification. (Health.1.a).



Walk with an Arborist programs at the University of Maryland's Arboretum and Botanical Gardens started with a New Year's Resolution from one staff member to walk more. Being a certified arborist, she thought perhaps other staff members across UMD would also enjoy walking around campus and looking at trees. From that first walking tour developed a year-long walking program aimed at staff and faculty at UMD, as well as the students. After returning from parental leave, that same staff member rededicated herself to walking to get back in shape and thought other parents would want the same opportunity and Walk with an Arborist...and Your Baby! was created. This program has evolved to try to reach new parents both on and off campus who may be struggling with the isolation that often occurs during parental leave, as well as postpartum depression, and those just looking for fun activities to do.



Health Goal 1: Commit to health and wellness best practices to establish a widespread culture of inclusion, diversity, and safety across all departments.

Suggested Strategies Continued



Foster a sense of open dialogue about mental and physical health challenges ensuring employees feel safe to take breaks, a day off, or discuss health issues with leadership staff. (Health.1.a).



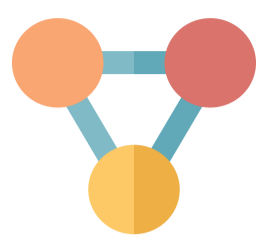
During busy times of year and especially around national holidays, communicate across departments an appreciation for each other and the work you have accomplished. It's important to communicate to all employees how vital they are to sustaining the level of accomplishment at your institution. (Health.1.a).



Create spaces for relaxation and respite for employees and volunteers indoors and outdoors. (Health.1.a).



Many gardens pride themselves on being places of peace and tranquility for their guests. However, while motorized maintenance is necessary in almost all gardens, loud equipment not only disrupts garden atmosphere for guests but also poses a safety risk for garden employees. For [Brooklyn Botanic Garden](#) (BBG), this challenge has been even greater, as most garden maintenance occurs while the garden is open—garden staff start at the same time the gates open in the morning, and the garden is only closed one day a week. In addition, BBG is in a very urban area and subject to noise complaints from its many neighbors. To combat this, and to add to the hearing health of their employees, BBG has gradually started using quieter equipment in their daily work routines. Many employees now use work tricycles and bicycles instead of motorized vehicles. BBG has also switched to low-rumble push carts and garbage cans for their catering service. BBG's latest and largest addition to their quiet equipment collection has been a safer, lower-noise tub grinder. Not only does this large piece of equipment help towards their zero-waste goal, but it also has been a huge step towards employee safety. To facilitate this shift towards quiet equipment, BBG has been working with [Quiet Communities](#), a nonprofit that helps client organizations test equipment and reach out to suppliers.



Health Goal 2: Provide direct services/programming to the community that addresses health and well-being challenges.

Key Performance Indicator (KPI)

a. Garden establishes participation and financial support goals and strategies for health and wellness programs and visitor services.

Outcomes

a) Garden collects baseline data to determine number of visitors, special needs visitors, and students participating in health and well-being programs. Garden also evaluates programs through questionnaires/surveys, meetings with staff or external partners, and by setting benchmarks/metrics for participation and impact on community members.

b) Garden has or is working to secure long-term funding for health and well-being designed spaces, programs, events, etc. (grants, donors, operating budget).

c) Garden tracks number of collaborations or partnerships that focus on specific health and well-being challenges (Ex. obesity, depression, food deserts, heart disease).

Suggested Strategies



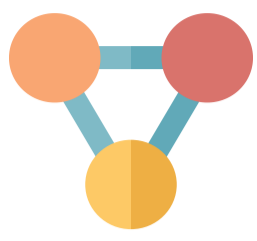
Leverage existing partnerships (such as one with current health provider or insurance company) or form new partnerships with institutions or organizations (academic institutions, healthcare providers, businesses, etc.) whose mission is more specific to health and wellness, but which you could support or offer your garden as a venue for events, workshops, classes, or programs. Your garden might consider offering a certificate of merit in healthcare garden design or horticultural therapy, or offer educational opportunities such as workshops or field trips for teachers and students, or continuing education for healthcare providers. (Health. 2.a).



Find a food service provider that is willing to offer sustainable and healthy food. Traditional business models typically involve the garden taking a percentage of the food service provider profits with no say on what is provided since that provider is responsible for all financial losses. Alternatively, your garden could strive to find a food service provider where you can pay them a percentage but dictate what is sold. That business model allows your garden to be able to say no more fried food, no more soda, and no more bottled water. While you might incur financial losses at the outset, it's a great opportunity to make healthy food and sustainable agriculture part of your mission and provide your café/restaurant with capital. It also ensures that your café/restaurant follows the guidelines you create for identifying, purchasing, and preparing healthy local food. (Health. 2.a).



Implement monthly programs that tackle different health and well-being issues, whether that is obesity or mental health. Promote this in your monthly or weekly newsletter, highlighting stories and programs that are making an impact. Include in all external messaging information about these specific health challenges and what your community and your garden is doing to address them. (Health. 2.a).



Health Goal 2: Provide direct services/programming to the community that addresses health and well-being challenges.

Key Performance Indicator (KPI)

b. Garden partners/collaborates with community-based organizations, businesses, or agencies to improve health and wellness in the community.

Outcomes

- a) Garden promotes nutrition by providing local, seasonal, and healthy food and beverage options; contracting with catering companies/vendors that ensure healthy and nutritious food options are provided at events, garden café(s), retail store, or restaurant(s).
- b) Garden works with local colleges/universities (Ex. working with state land-grant institution extension service to provide nutrition and food produce preparation information for visitors, collaborating with students studying public health, sustainable agriculture, dietetics, rehabilitative sciences, physical therapy, occupational therapy, health science, etc.).
- c) Garden works with preschools (children's gardens, nature play areas) and/or K-12 schools (educating students, parents, teachers about the health impacts of biodiversity, vegetable/fruit gardening, and nutrition).
- d) Garden works with local hospitals/healthcare centers/insurance providers.
- e) Garden works with senior community centers.
- f) Garden works with local government agency (Ex. USDA SNAP Education).
- g) Garden has designed therapeutic gardens, enabling gardens, biophilic areas, or other spaces for the purposes of mental and physical therapy working with landscape architect firms that specialize or have prior work that focused on health and well-being related designs.

Suggested Strategies

Missouri Botanic Garden is committed to working with St. Louis restaurants to reduce their environmental impact. "Plants – People – Planet" signs posted in the café and around the Ridgway Visitor Center offer points of awareness to visitors and staff about the Garden's commitments to sustainable practices and ways everyone can reduce our impact on Earth's resources. In 2008, their café, Sassafras, became the first restaurant in Missouri to be certified by the Green Restaurant Association, a process that grounded many current sustainability measures in ongoing awareness and commitments from the Garden and their distinguished service provider, Catering St. Louis. Garden staff have shared resources gained through their Green Restaurant Certification process with local restaurants and other botanical gardens and universities. Here are just some of the things that Missouri Botanic Garden has done to prove its commitment to healthier food service:

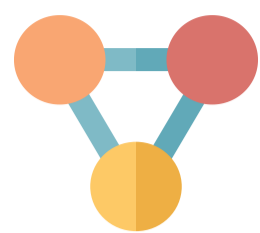
- Conversion of cooking equipment from fryers to grills has improved the menu with healthier items like personal pizzas, pasta dishes, and grilled sandwiches—while eliminating use of cooking grease.
- Sassafras serves only Fair Trade™ certified coffees and teas, ensuring that growers of these products are paid fair wages in healthy working conditions.
- Hand soap used in the restroom is Green Seal™ certified, dispensed from auto-portion dispensers which minimize product waste and clean-up.
- Restroom cleaning products are all Green Seal™ certified, to safeguard health of our employees and guests.
- Regular and special menus feature local foods, including seasonal produce, breads, mushrooms, and other items.



Partner with organizations that can help coordinate a community event and/or get speakers who have expertise in mental health, offer peer and family support, and provide general information on mental health as well as treatment. (Health 2.b.).



Consider meeting with relevant external organizations to identify the main public health challenges in your community and to develop collaborations or partnerships that are mutually beneficial. This may be particularly relevant for the philanthropic, development, or external relations arm of your organization. Are there ways to leverage what your garden can offer your community with existing movements/events (suicide prevention, funds toward cancer research)? For example, your garden could host an event or build into an event the capacity for visitors and members to donate toward an important health and wellness foundation or cause. (Health 2.b).



Health Goal 2: Provide direct services/programming to the community that addresses health and well-being challenges.

Key Performance Indicator (KPI)

c. Garden offers diverse, accessible, and affordable health and well-being public programming on and off-site.

Outcomes

- a) Garden has physical health programming such as physical rehabilitation/recovery from specific injuries, hiking/walking seasonal programs, plant exploration programs, etc.
- b) Garden has mental health programming (Ex. stress relief, addiction/recovery programs, neurological disorders, yoga/meditation, etc.).
- c) Garden programs address the health and wellness challenges of a particular audience (e.g. walking fitness program for seniors, children specific play/nature areas, mindfulness classes for veterans, etc.).
- d) Garden has faith-based programming from identified community faiths, cultures, and ethnicities, (Ex. Tai-Chi, Buddhism, etc.).
- e) Garden has food-related programming such as a plant production facility/health center off-site that helps distribute healthy produce to underserved areas (food deserts), educational cooking classes (healthy plant-based diets), or community garden, green roof, or home-garden program helping community members grow healthy produce and increase plant biodiversity.

Suggested Strategies



Identify specific health challenges (physical or mental) in your community (Ex. high suicide rates, obesity, heart disease, etc.) that your garden's mission and expertise might aide. Determine whether your garden has the capacity to add health and wellness as a core focus to membership offerings, educational programming, and other guest experience services. (Health. 2.c).



The Buehler Enabling Garden at the Chicago Botanic Garden is a hands-on teaching garden that promotes universal garden design, tools, equipment, and techniques that engage people of all abilities and ages in gardening. Since its beginning, the Garden's Horticultural Therapy Services has contracted with hundreds of health and human service agencies. Because of the welcoming accessibility and the breadth of experience of the horticultural therapy staff, the Buehler Enabling Garden is a model site for programs that foster a direct experience with nature. This garden also is the focus for the on-site portion of the Horticultural Therapy Certificate through the Joseph Regenstein, Jr., School of the Chicago Botanic Garden. Educational offerings at the Garden include portions of the Healthcare Garden Design Certificate, intensive study tours, workshops for special-education teachers, and continuing education for healthcare providers. Garden planting and maintenance is provided by the Garden coordinator and a host of volunteers, groups with varying special needs, veterans participating in stress-reduction programs, and more.



Evaluate health and wellness related programming and assets (facilities for educational programming like cooking classes, nature play areas, enabling gardens, staff or volunteers with experience working with those with differing abilities, etc.). (Health. 2.c).



Strolls for Well-Being is a free seasonal program offered at Bloedel Reserve. If not already a member, participants are given a temporary membership to allow them unlimited access (during open hours) to the gardens. This self-guided program uses the gardens of Bloedel as a place for inspiration and reflection. With a workbook in hand, participants explore themes such as forgiveness, gratitude, and awareness in old growth forest areas. This innovative program is sponsored by the Peninsula Cancer Center and Bainbridge Community Foundation



Health Goal 3: Promote and educate visitors on the physical and mental health benefits that gardens provide.

Key Performance Indicator (KPI)

a. Garden educational elements and messaging to the public include the importance of plants to health and well-being.

Outcomes

a) Garden regularly communicates health and well-being related programs, classes, or events to visitors in print and online (ensuring these are accessible and known to diverse audiences).

b) Garden has messaging about the mental health aspect that nature provide such as stress reduction, restorativeness, etc. (horticulture therapy, environmental psychology, or biophilia).

c) Garden educational programming and/or garden areas include information about the medicinal benefits of plants.

d) Garden has information about nutritional and environmental benefits to plant-based diets including organic versus non-organic foods, GMOs, and residual pesticides (Ex. Dirty Dozen, Clean 15, etc.).

e) Garden has food gardens for visitors/members to learn how to grow their own herbs, vegetables, or fruits and the importance of plant seasonality and sources of food (carbon footprint).

Suggested Strategies



For university/college gardens that are part of a larger institution, prove your relevance to the student population. Meet with outdoor recreation, gardening, and sustainable agriculture clubs. Gather data and information from the student body on specific health and well-being challenges and times of year that you might be able to offer stress relief related to finals and classwork. Use social media campaigns to get students outside and raise awareness of health and well-being programming. (Health. 3.a).



Collaborate with a local university/college that has departments devoted to rehabilitative sciences, behavioral sciences, special-needs education, dietetics, public health, mental health, etc. Get students involved so they can come give a presentation to educate visitors and employees about nutrition. These partnerships can potentially lead to mutually beneficial relationships through internships or research projects exploring a student's interest in new emerging topics and fields like horticulture therapy. There may also be students who need to get a certain amount of hours of evaluation experience. Students can then help build evaluation programs and provide qualitative research that is mutually beneficial to both the garden and the college/university. (Health. 3.a).



The Morris Arboretum, just 13 miles from the Penn Campus is accessible by car, bike, and public transportation. Admission is free for students with their PennCard. The Arboretum has a social media account with the tag ESCAPE @Morris Arboretum, to get the latest updates and pictures from fellow Penn students.



Health Goal 3: Promote and educate visitors on the physical and mental health benefits that gardens provide.

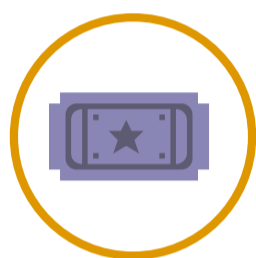
Suggested Strategies Continued



If part of internal or external health programming is focused on nutrition, utilize traditional family recipes and adapt them so they become a healthier and more culturally appropriate version. This is a more powerful way to get kids and adults invested into nutritional eating habits.



Provide career advancement opportunities and continuing education opportunities to healthcare providers/educators through certificate programs, trainings, and workshops.



If your garden has a relationship with a local restaurant or catering company, partner with them to hold a plant-themed dinner at the restaurant or at your garden and highlight or feature a specific plant with an educational component about healthy meal preparation and the value of nutrition.



Implement monthly programs that tackle different health and well-being issues, whether that is obesity or mental health. Promote this in your monthly or weekly newsletter, highlighting stories and programs that are making an impact. Include in all external messaging information about these specific health challenges and what your community and your garden is doing to address them. Your garden can align with existing promotional months for mental or physical health.



Create educational programming that stresses the connection between plant life and conservation and how that can address food deserts and the overall health of a community. Demand for food and beverages that are organic and nutritious and locally grown has been on the rise in recent years, and many public gardens are recognizing the interest in and need for programming about these topics.



Suggested Strategies Continued



Consider if your garden might be eligible for accreditation for health and well-being programming such as a Horticultural Therapy Certificate Program that was approved as an accredited certificate training program at AHTA. Here are a few examples of existing certificate of merit programs your garden should consider offering to healthcare providers/educators:

- Horticultural Therapy uses plants and gardens to help clients reduce stress and engage in therapy. Horticultural therapists practice in hospitals, rehabilitation and vocational facilities, nursing homes, senior centers, community gardens, and other settings. The Horticultural Therapy Certificate program is a professional-development opportunity, enabling you to integrate horticultural therapy effectively into your therapeutic practice or educational program.
- Healthcare Garden Design is an emerging area of specialization in which several professions converge to create environments of care. This will help interested professionals learn to design garden environments of care that maximize the effectiveness of clinical treatments for illness and disabilities, and to create passive garden experiences that significantly reduce staff stress and absenteeism, improve patient health, increase client satisfaction, and strengthen the bottom line.



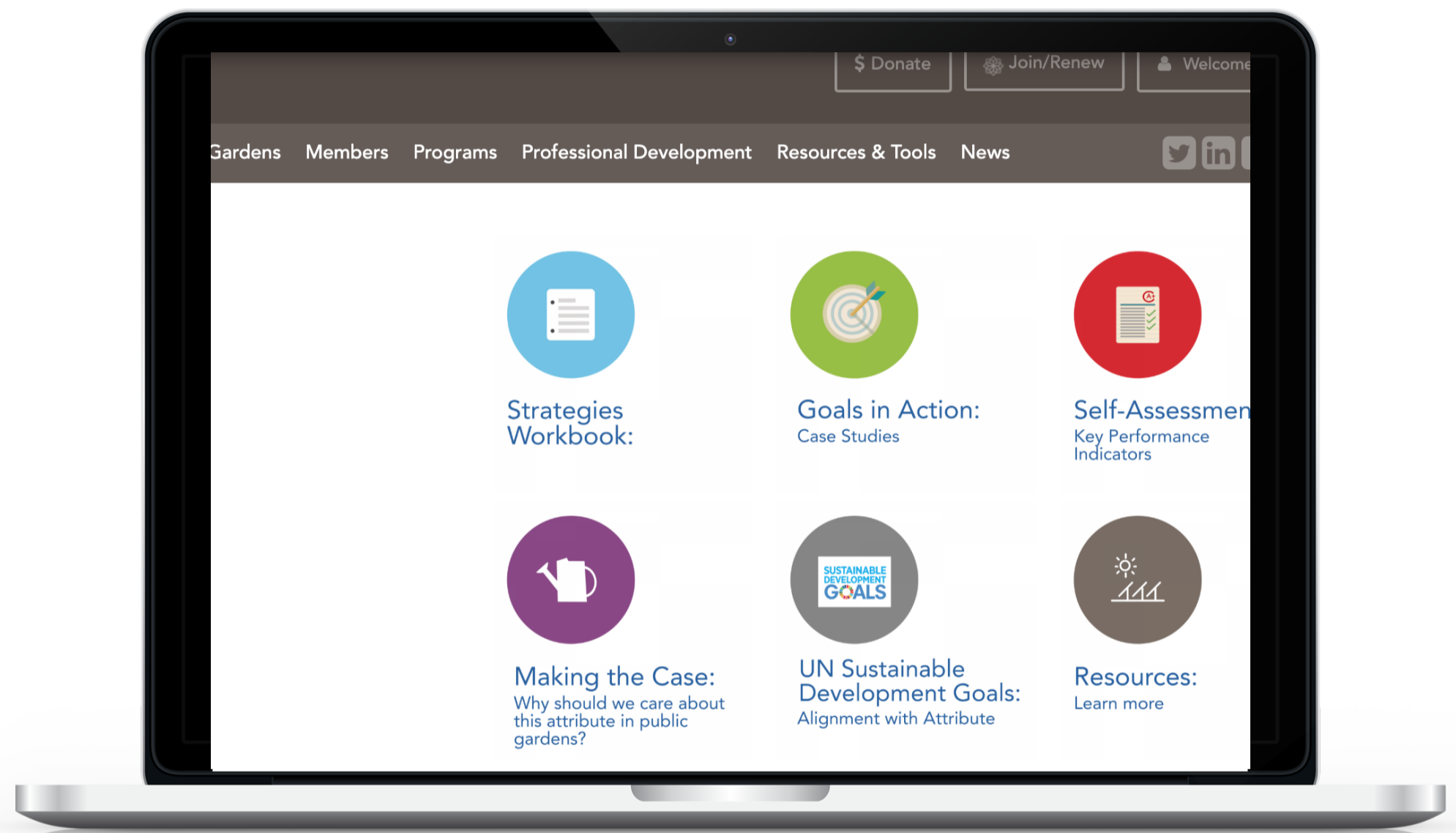
Communicate through job sites and your own website, internships, jobs, and volunteer offerings for medical students, healthcare providers (those working on their dietetic license, occupational therapists, physical therapists, etc.). These can be low cost, high reward options for finding instructors and leaders of these programs and can help cast a wider net.

Many students in the health science departments are eager to get leadership and evaluation experience, for example, Chicago Botanic Garden works with the University of Chicago Medicine to find students interested in doing cooking demonstrations and providing information about healthy eating habits at some of their sites.



FOR MORE INFORMATION

Visit the sustainability index attribute pages for more case studies, resources, and a self-assessment!



<https://www.publicgardens.org/sustainability-index/attributes/health-well-being>

