

# Ripple Effects of Prescribe Outside



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## Appreciations

The successful completion of this Ripple Effects Mapping (REM) report relied on the contributions of several key individuals. Foremost, thank you to the community leaders who shared their experience and insights during the REM session.

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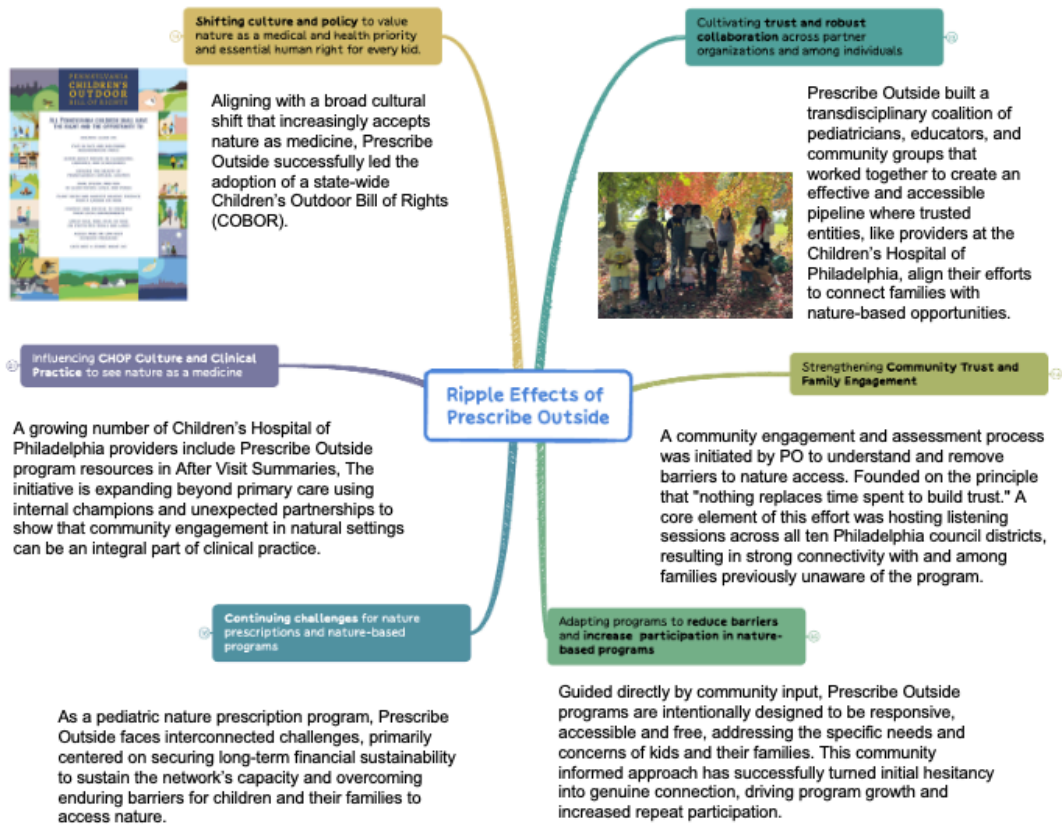
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# Ripple Effects Mapping summary graphic

## Ripple Effects of Prescribe Outside

In 2023, Prescribe Outside joined the Nature Everywhere Communities initiative. They received technical assistance and seed funding leading to a robust collaboration aimed at expanding nature access through nature prescription programs at the Children’s Hospital of Philadelphia. In September of 2025, Prescribe Outside participated in a Ripple Effects Mapping (REM) evaluation process to document and understand the impacts of these efforts. The following themes emerged from the process.

*“The mental health crisis inspired pediatricians. A tsunami of mental health needs in our community and a limited number of practitioners. People are in crisis and we are trying to get ahead of this: ‘unplug and spend time in nature’ is a prevention we can do.”*



*“The Pennsylvania COBOR affirms that every kid has the right to be outside-it’s not just a ‘nice to have.’”*

## Background

Prescribe Outside (PO), Philadelphia’s pediatric nature prescription program, is a partnership dedicated to bridging the gap between park availability and utilization. The coalition — which includes Children’s Hospital of Philadelphia (CHOP), Awbury Arboretum, Let’s Go Outdoors, the USDA Forest Service, Temple University and the Sierra Club Pennsylvania Chapter — works to improve the health and wellness of Philadelphia’s children by providing families and physicians with tools for locating safe, accessible public greenspace and realizing the benefits of time spent in nature.<sup>1</sup>

In November 2023, PO joined the Nature Everywhere Communities initiative through a competitive application process, receiving two years of technical support and seed funding. PO joined as the only Nature Everywhere Community team pursuing pediatric nature prescriptions as a strategic approach. This national effort, built on lessons learned through the Cities Connecting Children to Nature (CCCN) initiative, aims to advance equitable access to nature everywhere children live, learn and play.

Since joining the initiative in 2023, PO’s achievements include:

- **Comprehensive assessment and engagement:** The coalition completed comprehensive environmental,<sup>2</sup> community engagement<sup>3</sup> and communication needs<sup>4</sup> assessments to ensure community input and characteristics shaped the initiative.
- **Increasing nature prescriptions and participation:** Partnerships have increased the number of prescriptions and participation from Children’s Hospital of Philadelphia providers and families, with participation nearing 1,000 individuals from January 2024 to December 2025.
- **Influencing statewide policy:** In partnership with the Pennsylvania American Academy of Pediatrics Climate Committee, PO successfully secured adoption of the Pennsylvania Children’s Outdoor Bill of Rights (COBOR), affirming nature as a right for all children.<sup>5</sup>

The Nature Everywhere Communities initiative invited Prescribe Outside to participate in a Ripple Effects Mapping (REM) evaluation process to document and understand the impacts of systems change efforts aimed at creating more equitable

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<sup>1</sup> Prescribe Outside <https://prescribeoutside.org/our-mission/>

<sup>2</sup> Summary Brief: Environmental Scan of Organizations Providing Outdoor Programming to Youth in Philadelphia, PA (2025) <https://prescribeoutside.org/wp-content/uploads/2025/09/Environmental-Scan-Summary-Brief-Final.pdf>

<sup>3</sup> What will it take to get our kids outside? Key Findings from Listening Sessions in Philadelphia (2024) [https://prescribeoutside.org/wp-content/uploads/2025/06/Listening-Sessions\\_Final-Report-4.pdf](https://prescribeoutside.org/wp-content/uploads/2025/06/Listening-Sessions_Final-Report-4.pdf)

<sup>4</sup> The Prescribe Outside Partnership (POP) Communication Needs Assessment Report. (2025) <https://prescribeoutside.org/wp-content/uploads/2025/06/Communications-Needs-Assessment-Report.pdf>

<sup>5</sup> Pennsylvania Children’s Outdoor Bill of Rights (2025) <https://prescribeoutside.org/cobor/>

access to nature everywhere children live, learn and play. Prescribe Outside was one of five communities across the United States that participated in this evaluation process.

## About the Ripple Effects Mapping process

Ripple Effects Mapping is an evaluation method that engages a range of program participants to retrospectively and visually map the chain of effects resulting from a program or initiative. The REM process combines elements of Appreciative Inquiry,<sup>6</sup> mind mapping, group interviewing and qualitative data analysis.<sup>7</sup>

On October 3, 2025, a group of 14 individuals from Prescribe Outside member organizations gathered for a Ripple Effects Mapping session at Temple University. The session was facilitated by Erin Allaman, Director of Learning & Evaluation, and Anne Muller, Program Manager for the Children & Nature Network.



Prescribe Outside Ripple Effects Mapping Attendees  
Image Source: Children & Nature Network

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<sup>6</sup> Appreciative Inquiry is a strengths-based organizational development process, increasingly used in evaluation, that involves the art and practice of asking questions that build on the successful, effective and energizing experiences of those involved with a program. For an overview see [https://www.betterevaluation.org/en/plan/approach/appreciative\\_inquiry](https://www.betterevaluation.org/en/plan/approach/appreciative_inquiry)

<sup>7</sup> More information about the Ripple Effects Mapping process can be found at <https://extension.umn.edu/community-development/ripple-effect-mapping>

At the beginning of the session, participants interviewed each other in pairs using the following Appreciative Inquiry questions:

- Please share a story about one or more highlights or successes that emerged from Prescribe Outside and what you think were the key elements of success.
- Please tell me about new or deepened connections with others (individuals, communities, organizations, educational institutions, government, philanthropic) you made as a result of your involvement with Prescribe Outside. What did these connections lead to?
- Please share a story about changes in policies, practices, programming, funding, or natural or built spaces that emerged from Prescribe Outside and what you think were the key elements of success.
- What unexpected things did you observe in the community that contributed to the success of Prescribe Outside?

After the interviews, a representative from each pair reported the three most important stories they had heard during the interview process. These reflections were captured using a mind mapping program, which participants could view projected onto a screen. Participants also wrote their interview responses on a notetaking sheet so that additional reflections could be added to the map after the session.



Appreciative Inquiry Interviews  
Image Source: Children & Nature Network

During a lunch break, the co-facilitators brainstormed a list of core impact themes that fit the stories reported by participants. After the break, the facilitators led a discussion of these core impact themes, editing the theme titles and sometimes moving stories that better fit one theme more than another. During this group reflection, participants also shared additional examples and stories to add to the ripple map. Finally, participants discussed some of the challenges that had arisen for their coalition. These challenges were added as a core theme on the mind map.

After the session, all the information from the interview sheets was added to the draft map. One person who was unable to attend the October 3

session responded to the Appreciative Inquiry questions in an online survey. Once all data was added, the map was reviewed and edited by several Prescribe Outside members.

The core impact themes emerging from the interview process were:

1. Cultivating trust and robust collaboration across organizations and among individuals
2. Strengthening community trust and family engagement
3. Adapting programs to reduce barriers and increase participation in nature-based programs
4. Influencing CHOP culture and clinical practice to see nature as a medicine
5. Shifting culture and policy to value nature as a medical and health priority and an essential human right for every kid
6. Continuing challenges for nature prescriptions and nature-based programs

The remainder of this report is organized around these six themes with narrative examples from the ripple effects map. Statements shared by REM session participants are in text boxes. Images of each section of the ripple effect map are in the appendix.

## **Findings organized by theme**

### **Cultivating trust and robust collaboration across organizations and among individuals**

Prescribe Outside has intentionally cultivated strong partnerships across organizations with diverse areas of expertise. This network aligns with the observations of Plastrik and Taylor (2006), who wrote in their handbook on social networks that, "in practical terms, networks can boost efficiency and effectiveness, attract supporters and resources, and help increase focus, sustainability and capabilities. They transform one's capacity to act" (p. 23).

Participants in the REM session characterized the PO partnership as "two sides of the same coin," bringing together multiple trusted people and entities, such as community educators working directly with pediatricians. REM participants largely attributed PO's success to this transdisciplinary membership. The diverse composition, coupled with mutual trust and strong relationships, increased PO's

effectiveness in reaching more families and successfully overcoming barriers to nature access in Philadelphia.

Partners also credited their success to a deeply held “shared commitment to being an equitable, inclusive, and trustworthy program.” With professionals from multiple professional fields expressing support for prescribing nature to children, the collaboration transformed many members' experiences, fostering a deeper connection and a space where passion could thrive. Many expressed a similar sentiment that the diverse partners who make up Prescribe Outside make involvement meaningful, enjoyable, and inspirational. Collaborating alongside students, doctors, and educators often inspires new professional directions and motivates a greater belief in the power of working together among PO members.

Several participants in the REM session emphasized the critical importance of relationships and trust in strengthening the network. In-person gatherings reinforced these relationships and created opportunities for professionals to “connect on a human level.” Drawing on a nature program metaphor, one educator explained their experience in PO: an example is when kids go from being afraid of bugs to holding bugs: “In our coalition, we build trust with each other. Each partner has brought unique insight that has served an important role in the coalition’s growth.”

As participants reflected on PO’s impact, the intentional governance structure was credited with maintaining momentum and preventing good ideas from fading away. Organizers utilize working groups to keep partner organizations interacting and in sync with each other. The project coordinator was specifically praised for “amazing organization of project management work, data collection and efforts to keep people together” — all necessary to implement new ideas effectively. This coordination deepened connections between organizations like CHOP, Awbury Arboretum and Temple University, increasing visibility and awareness for both the initiative and its partner organizations. This process also broadened the network of providers within CHOP beyond primary care while simultaneously using community assessment to identify new program partners.

*“Positive change comes when trust is built- it can have people who are leading programs and project managers. In the last 2 years, Prescribe Outside went from a group who all brought independent goals to a community itself that has friendships beyond professional capacity. Our lesson learned is that ‘progress moves at the speed of trust.’”*

A final key insight about this theme is the importance of Prescribe Outside as a pipeline for participation, serving both those within the partnership and community members. Building on the trust and relationships forged in the network, the shared

commitment of each partner to champion nature prescriptions led to a more effective and accessible pipeline, with doctors sharing PO information as prescriptions and families accessing opportunities and programs. Through their collaboration, they have created multiple accessible ways for patients and their families to learn about nature-based opportunities through trusted entities, including providers at the Children’s Hospital of Philadelphia (CHOP) and the local outdoor program organization Let’s Go Outdoors.

## **Strengthening community trust and family engagement**

Through a collaborative partnership involving Nature Everywhere Communities, Temple University and the USDA Forest Service, Prescribe Outside initiated a comprehensive community engagement and assessment process. This work was crucial for understanding the barriers to nature access for patients and their families, helping to define what was hindering participation and what measures would successfully increase access when nature was formally "prescribed" by doctors.

*“Through the listening sessions and tabling, we learned that families didn't know Prescribe Outside existed. They were very excited to learn more and eager to participate. This showed and highlighted the importance of community outreach.”*

The community engagement process successfully strengthened community trust and family engagement. A cornerstone of this success was the series of listening sessions hosted across all ten Philadelphia council districts. Participants in the REM process shared that these sessions were pivotal “because many families didn't know about Prescribe Outside, but were excited and eager to participate” once they learned more. This direct, personal outreach resulted in strong connectivity not only between families and PO but also among the parents themselves. As one REM participant reflected, while information on fliers and websites is helpful, the bond is far stronger when people exchange phone numbers and social media handles, highlighting the power of personal testimony and shared connection.

The importance of this genuine outreach approach was echoed by a team member: “Nothing replaces time — time spent to build trust! Whether in a nature program about bugs or building a coalition, positive change occurs when trust is built.” Thoughtful planning of location and dates, combined with effective communication via social media ads and flyers, ensured parents in the school district were involved in community engagement events.

The listening sessions were vital for challenging initial assumptions about effective community engagement and directly informed the PO program “in the best possible

way.” The team learned so much by asking direct questions to parents, such as, “Is this something you have done? Loved? Absolutely not?” For instance, the feedback revealed that activities like “walks in the moonlight” were strongly disliked due to safety concerns, prompting to program adjustments that prioritized community comfort and security. This process of identifying and addressing barriers, like safety concerns, proved crucial to increasing participation. The listening sessions also highlighted the high value the community places on the source of the prescription. Although some felt a teacher or school counselor might interact with their child more often, the majority had a more positive opinion of hearing this message from a physician.

Research played an important role in learning about participation versus non-participation. This is grounded in a cooperative agreement established in 2022 with the USDA Forest Service, which provided the platform for Temple University — including faculty and numerous undergraduate and graduate research assistants — to support community outreach, research and evaluation for Prescribe Outside. This agreement set the groundwork for ongoing involvement and allowed the team to consistently evaluate programs while exploring other research efforts. Having researchers who are advancing research about nature prescriptions situates PO as a leader in advancing our understanding of pediatric nature prescriptions.

Seeing the impact of research in shaping program design was encouraging for Prescribe Outside partners. One REM participant shared that their outreach and research revealed a surprising number of barriers in communities. Later, observing the shift in families from initial hesitancy to full engagement in the process affirmed the role of community-based research in turning potential barriers into new learning opportunities. Researchers were also happy to partner with PO, as it provided a new research context and meaningful experiences for Temple students involved in outreach. This allowed students to work with a diverse group of people and grow personally and professionally. This process underscored the multiple benefits of thoughtful, community-informed program design.

### **Adapting programs to reduce barriers and increase participation in nature-based programs**

Prescribe Outside programs were guided by community input and addressed the specific and important concerns of kids and their families. A recent literature review about nature prescriptions reinforces this approach. Paquet et al. (2025),<sup>8</sup> examined

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<sup>8</sup> Paquet, S., Struthers, N. A., Gunz, A., Gittings, L., (2025). Barriers and facilitators to implementing nature prescriptions for child and youth health: a scoping review. *Health Promotion International*, 40. DOI <https://doi.org/10.1093/heapro/daaf039>

barriers and facilitators to equitable participation for children and youth, emphasizing the need for individualized prescriptions that account for socioeconomic status and location, as well as the importance of support from healthcare providers. In another review of the history of nature prescriptions, local researchers Megan Crnic and Michelle Kondo (2019) call attention to the importance of providing needed resources —such as accessible parks — and building on existing social networks.<sup>9</sup>

Based on community assessment and engagement, Prescribe Outside went to great lengths to offer “accessible, responsive and effective” nature programming to make sure nature prescriptions supported kids and their families. A key element in PO’s success is that programming is free, which is vital for engaging families and making activities accessible to everyone, including the target audience of children with nature prescriptions.

Programs that are free and open to families and children who are in the area ensures that children who have not registered can participate spontaneously. In addition, programs are intentionally located at six sites across Philadelphia since many people stay close to their neighborhoods. Site selection is based on local knowledge of transit and park activation. Furthermore, PO is expanding its reach by exploring after-school programs and incorporating new partnerships that bring in a school element, allowing children to participate even if their parent or caregiver cannot attend.



Image source: Let's Go Outdoors

Partners emphasized the importance of “creating a welcoming space where simple actions, like an educator putting down a blanket, encourage parents to get on the ground and participate.” This atmosphere, combined with the presence of trusted educators who know the families and kids, is important for building rapport. Programming is offered for kids of all ages (babies through older kids), which sometimes means parents participate in the organized activity while their children play nearby. “This is welcome and supports parents’ mental health.”

Educators shared examples of how modeling a love for the natural world and showing enthusiasm make kids want to try the same. They also adapt programs

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<sup>9</sup> Crnic, M., Kondo, M.C., (2019). Nature Rx: Reemergence of Pediatric Nature-Based Therapeutic Programs From the Late 19th and Early 20th Centuries. American Journal of Public Health. DOI <http://dx.doi.org/10.2105/AJPH.2019.305204>

based on the season and weather, teaching skills and showing that going outside is possible year-round, which is crucial for feeling comfortable in both cold and hot weather, and emphasizing the values they impart about the importance of spending time in nature. As one educator summarized, “Going outside in weather is a commitment rooted in belief.”

*“In listening sessions, parents talked about things they like and don't like. Walks in the moonlight was something they didn't like as much and the issue of safety came up. Cobbs Creek is well traveled and well known- but not necessary considered a "safe " place. Hosting a program there demystified this, It was gorgeous, it was fall, there was a creek, they collected leaves. Our program created a safe space in a park that is underutilized. Having an organized activity with organizations like CHOP and PO gave children and adults an opportunity to get outside.”*

The program educators also learned that technology could support program participation and engagement. Temple survey data shows that sending direct text reminders reduces barriers to participation more effectively than addressing logistical issues alone.

Texting also helped build community and trust by allowing direct communication between partners and participants. Educators also incorporate technology (such as Seek, eBird, BirdNet and tree identification tools) to help families learn about local flora and fauna, boosting connection and awareness of their surroundings.

With nearly 1,000 participants in Prescribe Outside Programs from January 2024 through October 2025, REM participants shared that they have been “surprised by how fun it can be” to see initial hesitancy about the outdoors and nature turned to connection. This success is evident in the fact that “people are participating more now, with programming growth and repeat participation increasing. The shared calendar has helped with the visibility of programs for educators and families.” PO continues to improve programming and is more intentional about recognizing the impact of being outside and how to sustain that connection after the program (e.g., walking, playground). They consider what families can take home afterward. As one REM participant shared, “A highlight is getting kids who might not think about spending time in nature to go outside and be active in natural settings.”

### **Influencing CHOP culture and clinical practice to see nature as a medicine**

The impetus for the revitalized Prescribe Outside initiative stemmed primarily from critical public health trends amplified by the COVID-19 pandemic. The crisis underscored the inequitable access to nature's healing power and, most critically, fueled a “tsunami of mental health needs” among young people. Pediatric primary care providers, facing clinics inundated with children suffering mentally and physically, recognized the urgent need for accessible, preventative interventions.

With limited capacity in the mental health practitioner community, prescribing time in nature — encouraging families to unplug and spend time in nature — became viewed as a necessary and immediate prevention strategy. Furthermore, PO actively seeks to counter excessive screen time by making outdoor activity the easiest and most accessible health behavior, thereby shifting the cultural value back toward nature connection.

The Prescribe Outside initiative is creating internal ripple effects, successfully embedding the concept of nature as a health intervention within the culture of the Children's Hospital of Philadelphia (CHOP). This influence manifests through shifts in clinical practice, enhanced employee well-being, improved community trust and broadened organizational partnerships.

PO has actively engaged many primary care practices to implement nature prescriptions, resulting in demonstrable growth in prescriptions and investment. The program's presence is supported by a robust webpage and a strategic communication plan. Acknowledging the constraints of brief patient visits — Primary Care Providers (PCPs) typically have only 20 minutes per visit — providers do not issue formal prescriptions but instead use a more practical approach: giving families fliers with event information and QR codes in the After Visit

*"The mental health crisis inspired pediatricians. A tsunami of mental health needs in our community and a limited number of practitioners. People are in crisis and we are trying to get ahead of this: 'unplug and spend time in nature' is a prevention we can do."*

Summary. This approach focuses on uplifting the "fun of activities" rather than abstract guidance like "exercise 3 times a week." From the perspective of one REM participant, an important change has been witnessing people go outside with the help of doctors and connecting their health with being outside.

Despite this success, REM participants acknowledged that "PO faces significant challenges due to competition with other initiatives within CHOP and limited time." Pediatricians are currently balancing 25 studies and programs (e.g., gun violence, asthma, depression, HPV), making it challenging for PO to maintain a top-of-mind presence without dedicated funding for presentations and monthly visibility. The fact that any counseling is happening at all is considered "a miracle" given the time constraints.

The "Walk with CHOP" program has been a highlight in promoting well-being among doctors, employees, and their families. REM participants shared that "Walk with CHOP" helps rebuild trust with the medical system, especially in the current climate of distrust, by allowing the community to see doctors as people and trusted

individuals. Prescribe Outside programs also created a cultural shift among employees and volunteers by helping them prioritize experiences in natural settings as part of their volunteer and work-related activities. This spilled over into their personal lives as they brought their families to programs and discovered, for the first time, the beauty and accessibility of the local natural spaces near CHOP facilities.



Walk with CHOP  
Image Source: Prescribe Outside

PO's influence expanded through targeted partnerships within CHOP, noting a collaboration with a nine-month nurse training cohort. Six nurses participated in team-building activities that culminated in their role leading a PO activity at Cobbs Creek Park. This engagement helped the nurses see patients (some of whom they directly care for) holistically by interacting with them outside the clinical setting, in natural environments where they live and play. This also served as a professional experience that supported their own health and strengthened team bonding — almost like an internal team-building event — that expanded their professional network. The partnership with PO validated the idea that nursing engagement with communities outside the clinical setting can be part of healthcare and clinical practice.

Through the partnership, CHOP representatives noted that PO is now better positioned to reach beyond primary care and involve more partners who bring new approaches and ideas to expand programming. REM participants shared that support often comes from unexpected people who have a passion for nature connections, citing a CHOP provider with a special interest in nature connections through Hiking Hound Adventures. From this experience, PO members shared that a key lesson they learned is “not to make assumptions about who will or won't help” because this new partnership directly led to expansion into another community (Upper Darby) via a CHOP Cares grant. They also shared how the idea of roadshows to share information about PO in specialty care clinics was raised at a well-being summit as a launching pad for more investment and involvement. Prescribe Outside is also seen as a valuable resource for social workers who can now provide a positive resource for students and parents who may be struggling.

Finally, the program is deepening its institutional ties. The Center for Health Equity at CHOP has invited PO to table at community resource events and offered an internship for the following summer, signaling an evolving and strengthening relationship within the CHOP ecosystem. Furthermore, PO's research with CHOP

continues to evolve. Now concluding a grant with the CHOP Center for Violence Prevention focused on co-creating trauma-informed nature-based programming, PO is gearing up to hire a Nature Prescription Coordinator with the help of its new Primary Investigator at CHOP PolicyLab. This relationship has long been sought after as PolicyLab's research informs both healthcare practice and policy.

## Shifting culture and policy to value nature as a medical and health priority, and essential human right for every kid

The Prescribe Outside initiative is creating ripple effects that extend far beyond the clinical setting, successfully influencing public understanding and driving state-level policy change to secure nature access as a recognized right. PO members noted they are harnessing a broad cultural shift that increasingly accepts nature as a health benefit. "Thinking about nature as medicine... is more and more common. It is more commonplace for people... to accept this as a way to support health." This wider acceptance means PO's messaging aligns with a trend that is already underway, allowing them to gain momentum and demonstrate a new experience in the U.S. context compared to other healthcare approaches.

*"Shifts in culture are also observed beyond CHOP: From a perspective of the general public understanding and healthcare, thinking about nature as medicine, how we think of nature as a healthcare priority is more and more common. It is more commonplace for people who are outside of PO - both pediatricians and general audience- to accept this as a way to support health."*

PO's active involvement with key partners provided the necessary leverage to advance this cultural shift into state policy through the Pennsylvania Children's Outdoor Bill of Rights (COBOR). The process began when PO learned about the COBOR concept through technical assistance in the Nature Everywhere Communities initiative. PO representatives brought the idea to the Pennsylvania American Academy of Pediatrics (AAP) Climate Committee, an action that helped strengthen the involvement of a new partner and gave the initiative medical backing. The COBOR was signed by Pennsylvania's governor in October 2025, creating a state-wide framework that focuses on "nature as a right for all children." This showed that all the different elements of PO could come together to make a powerful statement: being outside is a right, not just a "nice to have." The



COBOR provides a blueprint for what can be advocated for in the future and gives PO more standing to engage with local government.

## **Continuing challenges for nature prescriptions and nature-based programs**

Toward the end of the ripple effects mapping session, the facilitators asked participants to describe some of the challenges they have faced in their participation in PO. Participants noted several interconnected challenges faced by Prescribe Outside organizations.

Several group members expressed concerns about financial sustainability. Continuing to offer programming faces a constant funding challenge. This financial pressure exacerbates numerous logistical hurdles by limiting staffing capacity and staff time.

*"We have made so much progress, but we need to secure long-term funding to be able to have long-term success."*

The urban environment of Philadelphia poses additional challenges that are beyond PO's control. The weather has been more intense, leading to increasingly hot days that make getting outside undesirable. Basic park infrastructure is often inadequate: desirable parks are not evenly distributed across the city, leaving some neighborhoods without adequate green space or accessible play spaces.<sup>10</sup> The absence or poor condition of restrooms, which poses difficulties for families and children with special needs. Additionally, accessibility for non-ambulatory kids and wheelchair users can inhibit access, feeding the perception that Philly has limited usable green space. Poor air quality creates a barrier, especially for families with children who have asthma and must opt to stay inside. Finally, Philadelphia's public transit systems, which have become increasingly complicated and less accessible over time, while car transportation can be challenging due to limited parking.

Community interactions and ingrained beliefs within the city also complicate access. PO must compete with the sociological reality of people not wanting to cross neighborhood boundaries to join a program in a new space, reflected in the idea that "[residents] don't cross those lines." For parents, allowing unstructured time in nature often raises safety concerns because they perceive it as risky or unsafe. Concerns about equitable access arose in several forms. Variations in programming by nature space and neighborhood contribute to this perception. Addressing this requires a

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<sup>10</sup> Prescribe Outside's environmental scan reports that 95% percent of city residents can walk to a park within 10 minutes from where they live, and the city boasts 10,797 acres of parkland (2023 ParkScore Report). Philadelphia's equity of access score is much lower, just 67 out of 100, as residents of neighborhoods with predominantly non-white residents and residents of lower-income neighborhoods have significantly less nearby park space than residents of higher-income neighborhoods.  
<https://prescribeoutside.org/wp-content/uploads/2025/09/Environmental-Scan-Summary-Brief-Final.pdf>

cultural shift among families to know there is well-structured, affordable programming that makes parks safe for their kids. Politically, changes in city leadership made it difficult to build a strong partnership with the city. Finally, language persists as a barrier to accessing programming, as information is still primarily distributed in English.

## Summary and key takeaways

This Ripple Effects Mapping evaluation documented the broad range of community, organizational and personal impacts of the Prescribe Outside network in Philadelphia. With technical assistance and seed funding from the Nature Everywhere Communities initiative, Prescribe Outside developed a pipeline of nature prescription, research, and nature programming partners to overcome barriers to children's access to the health benefits of nature.

The ripple effects map was developed in collaboration with input from 15 Prescribe Outside members. The paragraphs below summarize the key findings related to these themes.

**Cultivating trust and robust collaboration across organizations and among individuals:** Through mutual trust and a shared commitment to equity, Prescribe Outside successfully built a transdisciplinary network, effectively bringing together diverse partners like pediatricians, educators and community groups. This strong foundational trust and diverse composition significantly boosted PO's capacity to act, making the collaboration more effective in reaching more families and successfully helping families overcome barriers to nature access in Philadelphia. PO intentionally sustains this momentum through working groups and strong project coordination, which keeps partners connected, in sync and continually inspired. Ultimately, this robust partnership created an effective and accessible pipeline where trusted entities, including providers at the Children's Hospital of Philadelphia and local outdoor programs, align their efforts to connect families with nature-based opportunities.

**Strengthening community trust and family engagement:** A community engagement and assessment process was initiated by PO to understand and remove barriers to nature access, founded on the principle that "nothing replaces time spent to build trust." A core element of this effort was hosting listening sessions across all ten Philadelphia council districts, resulting in strong connectivity among families previously unaware of the program. This direct, personal outreach successfully challenged initial assumptions and ensured programming was tailored to community comfort and safety. Supported by a cooperative agreement with the

USDA Forest Service and Temple University research, this process established PO as a leader in advancing pediatric nature prescriptions. By asking direct questions and actively listening, the program transformed potential barriers into learning opportunities, leading to important adjustments that ensure the prescribed nature activities are accessible and well-received.

**Adapting programs to reduce barriers and increase participation in**

**nature-based programs:** Guided directly by community input, Prescribe Outside programs are intentionally designed to be responsive, accessible and free, addressing the specific needs and concerns of kids and their families. To maximize participation, activities are strategically located at six sites across Philadelphia, selected for their transit access and local foot traffic, ensuring families can easily reach activities close to their neighborhoods. PO goes to great lengths to create a welcoming, accessible atmosphere, modeling enthusiasm for nature and encouraging parents to participate alongside their children. The team adapts activities for all ages and seasons, leveraging technology (such as direct text reminders) to effectively reduce participation barriers and maintain engagement, while building community trust. This community-informed, adaptable approach has successfully turned initial hesitancy into genuine connection, driving program growth and increased repeat participation.

**Influencing CHOP culture and clinical practice to see nature as a medicine:**

Driven by the need for immediate, accessible interventions to address the youth mental health crisis exacerbated by the pandemic, the Prescribe Outside initiative is actively integrating nature as a vital health intervention within the culture of the Children's Hospital of Philadelphia (CHOP). Clinicians, facing limited mental health capacity, see prescribing nature as a necessary prevention strategy to counter excessive screen time and make outdoor activity the easiest healthy behavior for families. A growing number of CHOP providers include PO program resources in After Visit Summaries. Despite competition from other initiatives, the program continues to grow in both participant numbers and provider interest. The "Walk with CHOP" program promotes employee well-being and helps rebuild community trust by allowing patients to see doctors as trusted individuals outside the clinical setting. The initiative is expanding beyond primary care, using internal champions and unexpected partnerships to show that community engagement in natural settings can be an integral part of clinical practice.

**Shifting culture and policy to value nature as a medical and health priority and an essential human right for every kid:**

Aligning with a broad cultural shift that increasingly accepts nature as medicine, Prescribe Outside successfully drove state-level policy change, affirming access to nature as a children's right. PO took

the lead on the Pennsylvania Children's Outdoor Bill of Rights (COBOR) and championed it with the Pennsylvania American Academy of Pediatrics (AAP) Climate Committee, securing strong medical and political backing. This influential collaboration resulted in the governor signing the Pennsylvania COBOR in October 2025. This statewide policy success provides PO with a blueprint for future advocacy, granting it formal standing to engage directly with city government and potentially unlocking new support and resources for pediatric nature prescriptions that were previously inaccessible. This achievement reinforces PO's influence, extending its message far beyond the clinical setting to redefine children's access to nature as an essential human right.

**Continuing challenges for nature prescriptions and nature-based programs:**

Despite programmatic success, Prescribe Outside faces interconnected challenges, primarily related to securing long-term financial sustainability. These financial pressures directly impact the network's capacity. Families and participants face barriers to access, including limited time, transportation constraints, sociological hurdles such as reluctance to "cross neighborhood lines," and safety concerns about unstructured time in nature. Furthermore, the urban environment presents obstacles for everyone, including poor air quality, extreme weather and inadequate, inequitable park infrastructure. For organizational partners and PO leaders, sustained success is hampered by political shifts in city leadership and internal logistical challenges. At the same time, language barriers (with information primarily distributed in English) continue to hinder equitable outreach and program expansion.

In summary, Prescribe Outside has successfully established a robust, transdisciplinary network, cultivating deep trust and strong collaboration among diverse partners to significantly increase children's access to nature in Philadelphia. The initiative prioritized genuine community engagement to inform the design of accessible, free programs that directly support local clinicians in delivering pediatric nature prescriptions. Prescribe Outside's efforts address many of the barriers to nature prescriptions documented in peer-reviewed research and position this network as a leader in the field of establishing nature as medicine.<sup>11</sup> PO's influence extends far beyond direct programming; it has successfully embedded nature as a health intervention within CHOP's culture and driven state policy change by championing the Pennsylvania Children's Outdoor Bill of Rights. PO's long-term success hinges on securing financial sustainability and continuing to overcome challenges through collaboration and authentic community engagement.

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<sup>11</sup> Children & Nature Network. (2025, October). Nature & Park Prescriptions Research Digest. <https://www.childrenandnature.org/resources/research-digest-nature-and-park-prescriptions/>

## **Reflections from Prescribe Outside's core team and project manager**

As Project Manager, I have the broadest range of involvement with the various aspects of Prescribe Outside. From the prescription process to marketing to programming to research, I am tuned into each component of the program in an effort to make sure coordination stays on track. Therefore, the themes feel familiar in that they are an accurate reflection of both all we have accomplished thus far as well as the work cut out for us.

However, to me, the greatest benefit of the Ripple Effects Mapping has been the ability to reflect on the volume of effort that has been poured into this initiative and not be exhausted by it. Rather, to my surprise, it has been energizing. Pausing to visually take stock of the quantifiable impact has been a gratifying exercise, exceeded only by the less quantifiable gains made in relationship-building as a coalition. To see all we have accomplished together since becoming a Nature Everywhere Community is an inspiring reminder that while the daily steps we take may sometimes feel small, this team's persistence and commitment has already taken us quite far.

As we conclude this exercise, the most exciting takeaway is the immense potential this program has to grow. Between our goals of influencing healthcare culture and city policy as well as making our programs even more accessible, it is clear we will need more help, namely, we will need to scale up. Our currently tight-knit group of member organizations will need to evolve to become more accustomed to an increasingly wider working group in order to create more ripples over time. While this need is articulated in our current strategic plan, seeing the potential to expand the messaging beyond primary care pediatricians into specialty care providers was a new concept for us to consider and only came about through this process. The collaborative and visual nature of the REM paints an undeniable vision of momentum, which I am excited to carry forward.

Grace Parker, Prescribe Outside Project Manager

# Appendix A – Sections of the Ripple Effects Map

## Cultivating trust and collaboration across organizations and among individuals

### 1. Cultivating trust and robust collaboration across organizations and among individuals



# Strengthening community trust and family engagement

## 2. Strengthening Community Trust and Family Engagement

a. Through the listening sessions and tabling, we learned that families didn't know Prescribe Outside existed. They were very excited to learn more and eager to participate. This showed and highlighted the importance of community outreach.

Participation in a listening group led to a high level of engagement with parents in 10 different districts in Philly. One thing that happened in these groups was the connection that was made through the parents. In these spaces and being able to participate in these spaces was parents giving referral to each other. Parent to parent referrals spoke volumes. There is power in testimony and having parents come together grew connections and helped build community. People can see information on fliers and websites but it is stronger when they exchange phone numbers and social media handles.

When tabling, I was able to guide families and used social work skills to engage in behavior change. The listening sessions helped to show barriers to participation and highlighted concerns about safety.

b. We learned so much from listening sessions that challenged assumptions about how to best engage the community and build trust. This set our path in directions that are really special.

"Nothing replaces time! Time spent to build trust!"

"Whether in a nature program about bugs or building a coalition, positive change occurs when trust is built"- Jay Byrd

Hosted listening sessions with parents. Goal and success were to include parents. Achieved 50% attendance from all 10 districts within Philly. We reached 50% attendance through ads on social media, fliers and making sure location and dates were accessible to families.

Observed connections between parents at the listening sessions. They exchanged phone numbers and social media handles, and support networks were formed. Families wanted to stay connected to Prescribe Outside.

Questions asked to parents gave insight for PO that worked. "Is this something you have done? Loved? Absolutely not?" For example, "walks in the moonlight" were not loved due to safety concerns. This gave insight for PO that worked.

Seeing the impact from a program perspective was a highlight. We saw families hesitancy about not knowing why they are there to engaging in the process. We turned this into new learning and surprises. From a research perspective, we were excited to learn from Prescribe Outside because it is a new context for us as researchers to work.

Being able to pull in Temple students who were really involved with outreach. The students learned a lot, found it meaningful, and it gave them a chance to work with a diverse group of people; they grew from the experience.

c. Research plays an important role in learning about participation vs. non-participation. Analysis of survey data highlights exciting findings and shows that the things we can address are barriers to participation.

I was surprised by how many barriers exist in communities. Families prefer to hear this message from a doctor, although others felt a teacher or school counselor would see their child more frequently. The majority had a more positive opinion of hearing this message from a physician. The listening sessions informed the PO program in the best way.

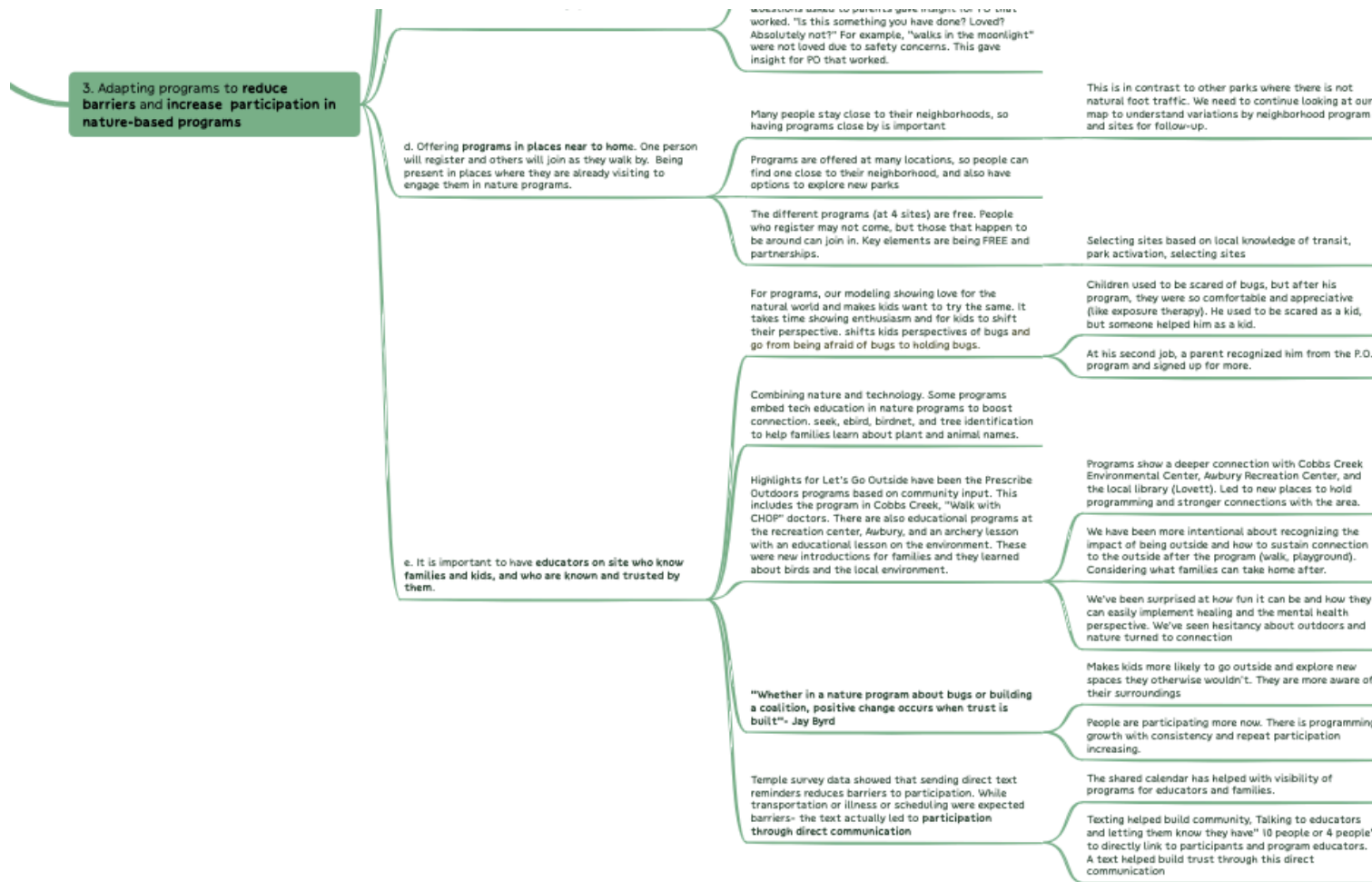
I wanted to have an opportunity to highlight the cooperative agreement with Michelle Kondo's agency as the platform that allowed Temple University, including myself and many undergraduate and graduate research assistants, to be part of Prescribe Outside and to support community outreach and research and evaluation for since 2022. This agreement set the groundwork for our continuous involvement and allowed us to consistently evaluate the programs while exploring other research projects and efforts to support Prescribe Outside activities.

# Adapting programs to reduce barriers and increase participation in nature-based programs

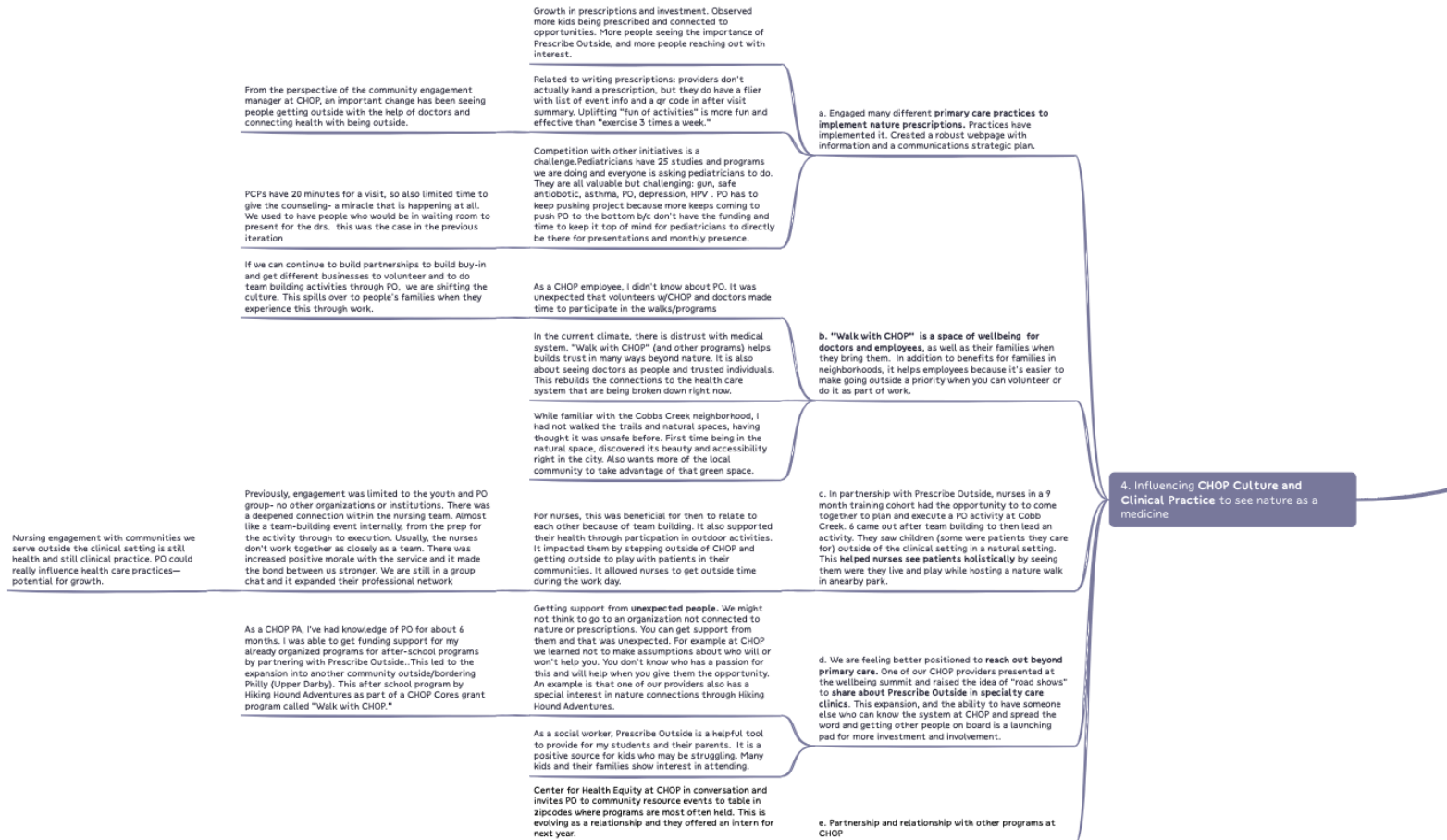
## 3. Adapting programs to reduce barriers and increase participation in nature-based programs



# Adapting programs to reduce barriers and increase participation in nature-based programs continued



# Influencing CHOP culture and clinical practice to see nature as a medicine



# Shifting culture and policy to value nature as a medical and health priority and an essential human right for every kid



# Continuing challenges for nature prescriptions and nature-based programs

