

# Project SHINE!: Supporting Healthy Interaction, Nurturing, and Enrichment for Preschool Children in Sierra Leone

## Introduction

Sierra Leone has one of the highest child mortality rates in the world, with 101 out of every 1,000 children not surviving past their fifth birthday. Additionally, young children face significant risks of stunting, malnutrition, and common infectious diseases such as malaria, diarrhea, and pneumonia. Between January 2023 and September 2024, Columbia World Projects (CWP) supported **Project SHINE!** (Supporting Health Interaction, Nurturing, and Enrichment for Preschool Children in Sierra Leone) to address these challenges. This initiative—led by ICAP at Columbia University in partnership with the Columbia Graduate School of Architecture, Preservation, and Planning (GSAPP), and national, regional, and local stakeholders in Sierra Leone—aimed to tackle critical health and developmental challenges facing preschool-aged children in Sierra Leone. The project implemented and tested **wraparound health services for preschool children** at an early childhood development (ECD) center in the Port Loko district of Sierra Leone. These services included a health unit within the ECD center, household visits by community health workers, community health days, the creation of a nutritional teaching garden, and linkages to local health facilities.

## Background

Once children receive their second measles vaccine at 15 months, they often disappear from the health system until they begin attending primary school at age five. A 2021 national nutrition survey in Sierra Leone revealed that over a quarter of children under age five are stunted, 13% are underweight, and nearly 5% are wasted. The under-five mortality rate is among the highest in the world, due in large part to preventable conditions like malaria, diarrhea, and pneumonia. Poor health limits children's ability to reach developmental milestones and can impact their wellbeing throughout childhood and into adulthood.

Preschools in Sierra Leone can play a vital role in delivering essential health services to children ages two to six, a crucial period between completing basic childhood immunizations and starting primary school. The country's forward-looking policy on integrated ECD envisions a nationwide network of high-quality, government-run preschools, where children receive not only education but also primary health services onsite. Led by ICAP at the Mailman School of Public Health, GSAPP, and ICAP Sierra Leone, Project SHINE! was a collaborative, interdisciplinary initiative that worked closely with the Sierra Leone Government and key community stakeholders to advance the country's integrated ECD policy.

“We still have much work to do in childhood development. It's alarming that 30% of children in this country die from malaria, and over 50% face similar dire conditions. We need to change this narrative, which is why I'm committed to supporting early childhood development. — **Professor Charles Senesie**, Deputy Minister of Health in Sierra Leone.”

<sup>1</sup>UNICEF. Country profile: Sierra Leone. [Available here](#).

<sup>2</sup>Government of Sierra Leone, Ministry of Health and Sanitation (2021). Sierra Leone national nutrition survey, 2021. [Available here](#).

**Evaluation:** The team carried out an evaluation to assess the project’s reach, adoption, and sustainability potential, providing insights to guide future activities and expansion. Semi-structured interviews were conducted with 129 key stakeholders, including school-based staff and educators, caregivers of preschool children, and members of the National ECD Technical Working Group.

## Findings and Results

Project SHINE! demonstrated the feasibility of providing essential on-site and community-based health and nutrition services for preschool children and their families and further, it developed a blueprint to implement these integrated ECD services at scale.

The project team worked with health and education sector stakeholders to reestablish the National ECD Technical Working Group, including updating the group’s terms of reference, reengaging and identifying new members, and establishing clear objectives. A policy subcommittee and a community advisory group were also established. The Working Group developed Policy Guidelines on the Integration of Health Services in Early Childhood Development Centers in Sierra Leone, which were officially adopted by participating government Ministries in July 2024 during the Project SHINE dissemination meeting.



“Project SHINE! is providing much-needed evidence in terms of what has been achieved in the pilot phase...and it will inform the rollout of the program. — ECD Technical Working Group Member”

In response to the needs assessment findings, ICAP Sierra Leone carried out **renovations at Our Lourdes Preschool** to improve the school environment, including improvements to the toilets, handwashing stations, and kitchen facilities, as well as building a new water tower and repainting and refreshing the school buildings.

The **baseline health assessment of 228 students** at Our Lourdes Preschool revealed significant health needs.

## Key Baseline Assessment Findings

- 13% of children were underweight; 18% had low body mass index
- One-third of children had anemia
- 41% screened positive for malaria
- 99% of children had received the recommended 0-14 week vaccines



The **school health unit** at Our Lourdes provided on-site services and was able to address recurring issues among students—such as malaria, diarrhea, and respiratory symptoms—through consistent follow up, monitoring, and offering referrals when needed. A total of 96 referrals were made for health concerns, a majority of which (71%) were for positive malaria screens, as well as for cold symptoms (29%), gastrointestinal issues (22%), skin conditions (12%), and anemia (7%).



School based health assessment pictured above

A team of 10 trained community health workers visited each preschooler's home for health education, health screenings, and referrals, as needed, with a total of **252 households visited a total of 647 times** over the school year. A majority (65%) of households received three visits.



The **nutritional teaching garden** established under Project SHINE! featured a greenhouse, solar-powered irrigation system, and covered ramada for storytelling and mealtimes. Over **20 local crop varieties** were planted, with harvests contributing to school meals and take-home food for students' families. The preschool children helped sow seeds, transplant, water, weed, and harvest in the garden and also learned about mulching and drip irrigation. In collaboration with the preschool staff, the team developed a 10-module teaching garden curriculum which was integrated into preschool lesson plans.

The school hosted **three Community Health Days, each attended by more than 200** students, caregivers, and community members. Local health workers provided preventive and curative care and conducted interactive educational sessions on malaria prevention, personal hygiene, nutrition, vaccinations, deworming, ear health, and oral health. These days strengthened the connection between local health services and the community, promoted preventive health measures, and increased awareness of available health services.

“Community health days have brought so many benefits in my life. Malaria prevention, hygiene, and agriculture are some of the benefits I personally gained on that great day.  
— **Caregiver** of a preschool student”

**Evaluation findings** showed that 100% of project staff and educators, along with 96% of preschool families, were "very satisfied" with Project SHINE! activities and expressed interest in their continuation. This underscores the community's need for, and importance of, integrating health services within school and community settings.

## Key Outputs

Through its integrated approach to health and education in ECD, Project SHINE! has fostered improved health care access and uptake in the Port Loko community. The project enhanced infrastructure, expanded health services at both the school and community levels, offered community education, and strengthened local policies and agricultural resources, creating a supportive ecosystem for children's development and wellbeing.

## Key outputs of Project SHINE! include:

- Reestablishment of the national ECD Technical Working Group
- Infrastructure improvements related to healthy habits at Our Lourdes Preschool
- Availability of basic health and nutrition services for children and their families at the Our Lourdes Preschool and in the surrounding community
- Establishment of a Teaching Garden, including 20 varieties of local crops
- *Policy Guidelines on the Integration of Health Services in Early Childhood Development Centers in Sierra Leone*, officially adopted and launched in July 2024
- Communications, publications, and media coverage about the project (see list at the end of this document)

## Why This Project Was Important

Project SHINE! has provided proof-of-concept and valuable insights to support the Government of Sierra Leone in implementing its National Integrated ECD Policy. The project showcased the feasibility of integrating health services into preschool ECD centers. The lessons learned and resources developed from this initiative provide a strong foundation for scaling wraparound health services in preschools nationally, and potentially in other countries, to improve the health and wellbeing of young children.



“ECD is a key priority. The policy gives us a framework to build on, and we are already exploring ways to scale these services to more ECD centers. With continued collaboration and community involvement, we can ensure that this initiative reaches all corners of Sierra Leone and becomes a national standard in our education systems. — **Lois Marah**, ECD Technical Working Group”

## What Did This Project Teach us About How to Implement Social Impact Projects at Columbia University

Project SHINE! embodies Columbia University’s mission to leverage scholarly knowledge to create societal impact, in close partnership with organizations and practitioners outside of academia. Drawing on the project team’s long history implementing social impact projects, Project SHINE! applied research to inform the design and implementation of impactful health, nutrition, and educational services within a preschool and its surrounding community. The project successfully engaged local and national policy makers and the community to ensure buy-in and sustainability, while also engaging Columbia University faculty and students from medicine, public health, and architecture and planning. Application of this collaborative model fostered community-driven change, aligning with Columbia University’s commitment to impactful, interdisciplinary work that extends beyond academia.

## CWP As Catalyst

CWP was instrumental in Project SHINE!’s trajectory from a pilot program to a policy-driving initiative with potential for national scale. CWP support enabled the project team to capitalize on the opportunity to identify and share actionable program strategies in support of Sierra Leone’s integrated ECD policy goals. The project was enriched through interdisciplinary, cross-school collaborations that addressed early childhood development (ECD) through the lenses of health, nutrition, and education.

“We are building a future where every community member thrives with vitality and strength. Through our continued efforts in health and nutrition, we are not just sustaining wellness—we are cultivating hope, resilience, and a brighter tomorrow for future generations. — **Emily Gogra**, Deputy Minister, Sierra Leone Ministry of Basic and Senior Secondary Education”

## Next Steps

Key components of the project have transitioned to project partners and local stakeholders. For example, the District Health Management Team is now overseeing baseline health screenings and referrals for newly enrolled preschool students. Our Lourdes Preschool is integrating health education activities into its annual family day, and the Ministry of Agriculture is providing technical support for garden maintenance and collaborating with school management and community volunteers to sustain the teaching garden.

A Project SHINE! blueprint package—including planning forms, curricula, tools, and templates—was developed and is available to support replication or adaptation of the entire SHINE program or its individual components. Ensuring the continuity of Project SHINE!’s health, nutrition, and educational services, including maintenance of the Teaching Garden and community health outreach and services, will require ongoing funding and support. The team is exploring collaboration opportunities with government Ministries and potential donors to replicate this model in preschools across Sierra Leone.

## Project Team:

- **Elaine Abrams**, Senior Research Director, ICAP
- **Amale Andraos**, Professor and Dean Emeritus of Columbia GSAPP
- **Mame Awa Toure**, ICAP Regional Director for West and Central Africa
- **Allison Zerbe Buba**, Deputy Director for Research, ICAP
- **Matthew Lamb**, Senior Epidemiologist, ICAP
- **Amon Njenga**, Team Lead for Special Projects, ICAP Sierra Leone
- **Jennifer Zech**, Senior Project Manager, ICAP
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- **Oliver Eleeza**, Associate Director of Strategic Information, ICAP Sierra Leone
- **Henry Sandy**, M&E Officer, ICAP Sierra Leone
- **Stephanie Greenwood**, Project Coordinator, ICAP Sierra Leone
- **Assiatu Mansaray**, School Nurse, ICAP Sierra Leone
- **Riad Koroma**, Teaching Garden Coordinator, ICAP Sierra Leone
- **Alimamy Kamara**, Teaching Garden Coordinator, ICAP Sierra Leone
- **Madeleine Fish**, Medical Student, Columbia University

## Communications & Publications

- Project SHINE! Photo Book and Brief.
- ICAP (Nov 2024). [Helping Children SHINE: ICAP in Sierra Leone Transforms Early Childhood Development through Integrated Health and Education.](#)
- ICAP (July 2024). [Landmark ICAP-Supported Project Yields New Policy Guidelines for Integrating Health Services Into Preschools in Sierra Leone.](#)
- ICAP (Jan 2024). [Empowering Futures in Sierra Leone: Integrating Vital Health and Nutrition Services into Early Childhood Education.](#)
- Workac (April 2024). [Project SHINE!](#)
- Swit Salone News (July 2024). [ICAP and Sierra Leone Ministries Launch New Policy Guidelines for Health, Nutrition, and WASH Integration in Early Childhood Centers.](#)
- Columbia Mailman School of Public Health (July 2024). [ICAP’s Project SHINE Leads to New Policy Guidelines for Preschool Centers in Sierra Leone.](#)
- Columbia World Projects (Oct 2024). [From Pilot to Policy: SHINE Project Transforms Early Childhood Development in Sierra Leone.](#)

## In Partnership With:

- Sierra Leone Ministry of Basic and Senior Secondary Education
- Sierra Leone Ministry of Health and Sanitation
- Sierra Leone Ministry of Agriculture
- Sierra Leone Ministry of Water Resources and Sanitation
- UNICEF
- Port Loko District Education Office
- Port Loko District Health Management Team
- Port Loko Government Hospital
- Our Lourdes Preschool and ECD Center
- Sierra Leone Community Health Post

## For More Information:

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