



COVID-19 Pandemic Response and Adaptations by International Community Access to Child Health (ICATCH) Projects in Low- and Middle-Income Countries

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Abstract

Background. The health personnel in low/low and middle-income countries have faced significant challenges during the COVID-19 pandemic. The International Community Access to Child Health (ICATCH) grants support locally initiated projects in those countries. The aim of this study was to highlight how the challenges countered by grant project teams continuing their projects and demonstrating their skills to adapt to an increasingly difficult environment. **Methods.** This was a mixed methodology study for which data were obtained from the evaluation of annual reports submitted by the projects. The annual reports review comprised of answers to questions on whether project objectives were met, problems or barriers encountered, and reviewer feedback in the form of specific concerns or recommendations. The reports were analyzed both quantitatively and qualitatively. **Results.** A total of 34 (92%) of annual reports were included with 17 (94%) received in 2020 and 17 (89%) in 2021. Compared to 2020, in 2021 the projects that indicated meeting objectives increased by more than half from 29% to 58%. Over one third of the projects encountered barriers in both years. The percentage of projects with major concerns decreased by almost 2/3 in 2021 while unexpected expenses decreased by 1/3. Four themes emerged from the qualitative analysis: Concerns over COVID-19, Barriers to accomplishing project goals, Positivity around adaptations, and Despair over lack of ability to overcome challenges. **Conclusions.** ICATCH funded projects demonstrated resiliency and adaptations to meet program objectives despite the challenges posed by the COVID-19 pandemic demonstrating greater success in 2021.

Keywords

ICATCH, grant, child health, COVID-19, resiliency, adaptation

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Background

The global impact of the SARS-CoV-2 pandemic is profound and still evolving. Disruption of essential and preventative services has been described in all population groups, particularly pregnant women and children, affecting access to timely antenatal care and routine immunizations, especially in low resource settings.¹ Children have experienced significant psychosocial changes and even trauma in the context of the COVID-19 pandemic, with increasing poverty, domestic violence, school closures and lack of access to school meal programs and health facilities. The health personnel in low/low- and middle-income countries (L/LMIC) also face significant challenges in the implementation of social distancing, hand hygiene, universal use of masks, and timely testing, all exacerbated by lack of adequate personal protective equipment (PPE) and essential supportive medical supplies/services.^{2,3}

The American Academy of Pediatrics' (AAP) International Community Access to Child Health (ICATCH) grants support locally initiated and led projects focusing on advancing health outcomes for children living in LMICs with the goal of making a positive impact on the lives of children worldwide (Figure 1). ICATCH funds 6 to 7 projects annually, and each project is funded for 3 years with total funding not to exceed US \$6000. Grant applications are reviewed on a yearly basis by the ICATCH review team consisting of members with expertise in general and subspecialty Pediatrics. Each project is assigned a liaison from the review team to provide additional support and resources. Liaisons are also drawn from various AAP sections: the Section of Neonatal-Perinatal Medicine and Section of Hospital Medicine. The ICATCH team evaluates annual reports on each funded project to determine the fulfillment of their objectives and approve subsequent funding. This program evaluation report identified the challenges faced by our ICATCH grant recipients during the initial phase of the COVID-19 pandemic in 2020 as well as the ongoing challenges a year later in 2021. This study aims to highlight how the grant project teams countered those challenges continuing their projects and demonstrated their skills to adapt to an increasingly difficult environment due to the global pandemic.

Methods

We utilized a mixed methodology approach. The annual report form, filled out by the grant recipients, consists of open-ended questions about activities, budget reporting and a section about what worked well, challenges, modifications, partnerships and plans for sustainability.

Annual reports were submitted by project directors in June-July of each year. A 6-item annual reports review form created by a subcommittee of the ICATCH, the Annual Report working group, comprised of questions on whether project objectives were met, problems or barriers encountered, and specific concerns or recommendations was completed for each project. Each report was reviewed by at least 2 ICATCH reviewers. Reports with concerns about sustainability and fund utilization were discussed in group meetings of the Annual Report workgroup. Quantitative results of the review were shared with the monitoring and evaluation (M & E) workgroup using descriptive statistics. Qualitative analysis was conducted by the reviewers from the M & E workgroup with expertise in qualitative methods (RU, AD). Texts were separated into summarized meaning units as words, sentences or sections holding features connected to each other over their content. Then each summarized unit was abstracted and named with a code. Different codes were matched based on the relationship of underlying meanings, and the same meanings were collected, which formed themes.

Results

A total of 34 (92%) of annual reports submitted from 2020 to 2021 were received before the reporting deadline and included in the study. These included 17 (94%) annual reports received in 2020 and 17 (89%) annual reports received in 2021.

In 2020, the first year of the COVID-19 pandemic, 5 (29%) projects indicated that they fully met their objectives for the year while in 2021, the number increased by greater than half to 59%. In both years, over one-third of the projects 7(41%) encountered barriers that they were unable to overcome; mostly related to the COVID-19 pandemic. In 2020, nearly half of projects 8 (47%) had major concerns identified by the reviewers which included clinic closures, deferred elective procedures and travel restrictions. On the other hand, in 2021, the percentage of projects with major concerns decreased by almost two-third in 2021 compared to 2020 (Figure 2). In 2020, unexpected expenses resulting from the changes in project scope to address the community impact of COVID-19 on child health were reported in 11 (65%) projects which, in 2021, decreased by almost a third to 47%.

Table 1 summarizes the major barriers experienced, and the adaptations that program directors made that included increased use of radio and internet to reach their target populations and modalities such as video and social media were utilized instead of in-person training. In some cases, the focus shifted to more accessible learner groups.

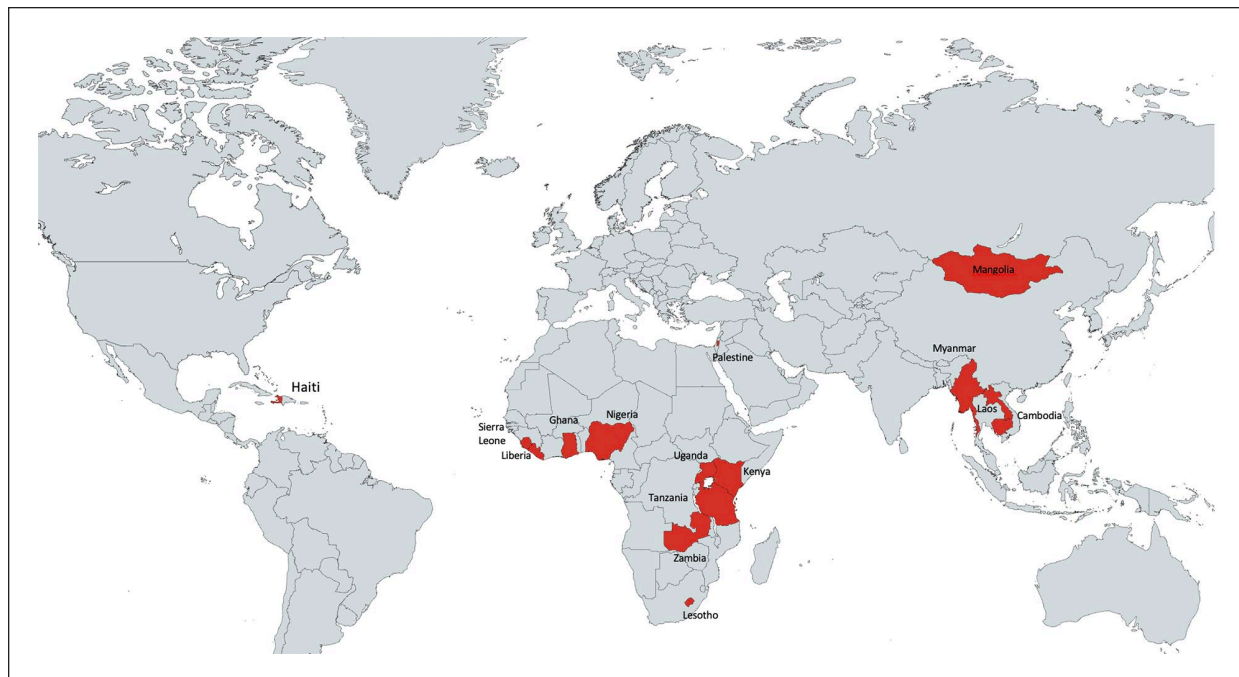


Figure 1. The countries with current ICATCH projects.

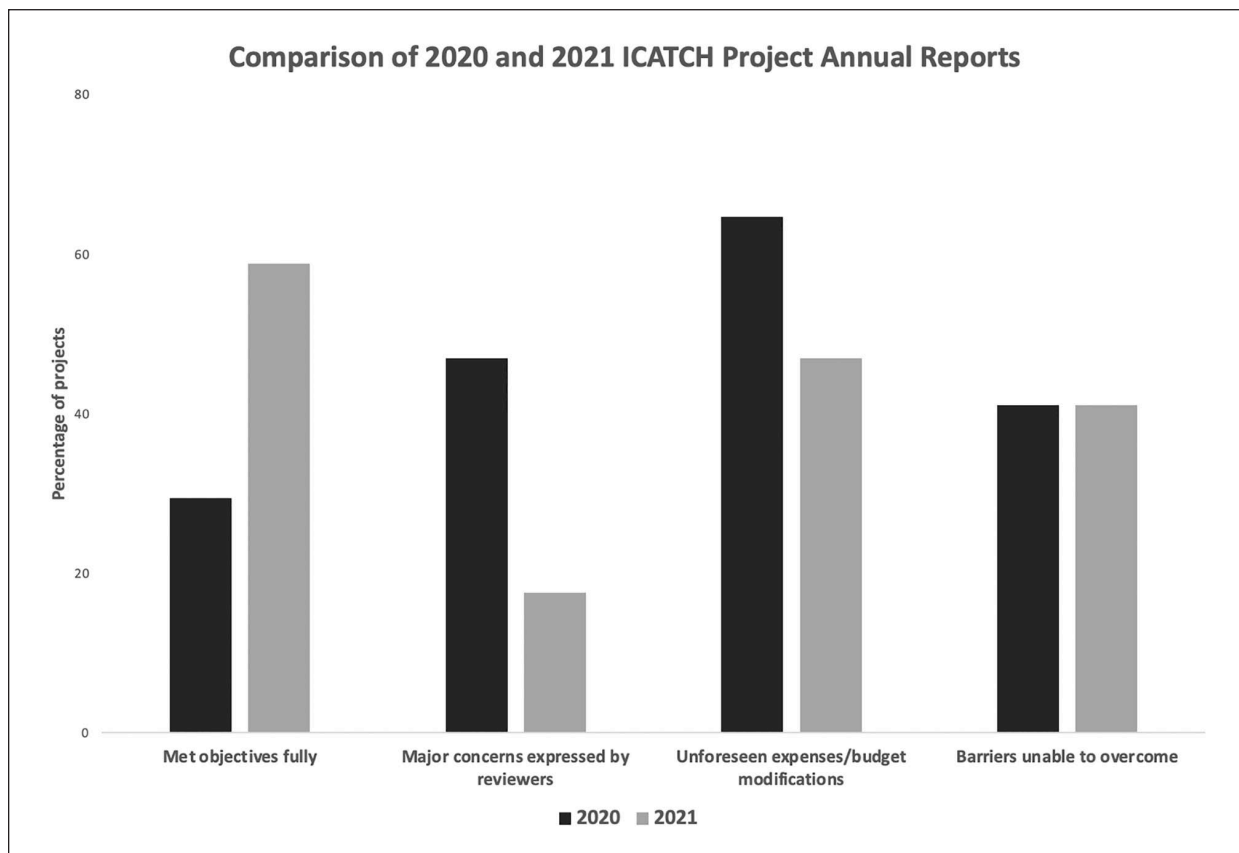


Figure 2. The comparison of distinctive characteristics of the annual reports between the years 2020 and 2021.

Table 1. Adaptations Programs Made to Address Identified Challenges.

Issue identified	Adaptation
Travel restrictions	Local co-director conducting project
Fewer patients accessing clinical services	Patient follow-up completed by phone Helping community by masks distribution
Restriction on group training	Implemented teleworking and virtual training
Closure of school and after-school activities	Used radio and internet [Youtube, social media] to disseminate project-related educational messages as well as messages on hand hygiene and social distancing Switched target learner group from pre-service to in-service staff
More people to feed	Increased project team efforts
Increased costs	Successful application for additional grant funding from other agencies.
Supply chain issues	Adjustments made in visits and supply chain

Table 2. Description of the themes identified in the annual reports.

Theme	Examples
Concerns over COVID-19	<i>"We have spent much of our time trying to secure these needed [PPE] supplies while supporting the government with preparation activities and community education/messaging through available means."</i>
Barriers to accomplishing project goals: The grantees identified restrictions or barriers to their day to day work in addition to the activities associated with their ICATCH grant projects	<i>". . .hospitals have imposed a ban on all non-emergency cases. . . as well as all elective surgeries with the exception of emergencies. This has made it difficult carrying out the Project as scheduled. We have had to suspend activities until further notice."</i>
Positivity around adaptations: Not only did the grantees identify the barriers, but most of them were actually able to adapt to this new difficult situation and find a solution to the challenges they were facing.	<i>"We have educated our community about the virus and placed 30 hand washing stations throughout the community. We also have distributed 500 sewn masks along with video education and posters to our community."</i> <i>"We are now feeding many more children and mothers in the hospital as the lockdown measures have been taken and no family is able to bring food for their own."</i>
Despair over lack of ability to overcome challenges: Finally, it is worth mentioning that not all of the grantees were successful in overcoming their challenge. While some of them were pleased that they were able to push forward with their plans, others were in despair about the uncertain future of their projects.	<i>"Routine clinics have been suspended and we only have a few patients coming to our clinic for immunisations and urgent reviews. We will review our plans as soon as this phase passes. Honestly, we don't know when that will be."</i> <i>"We really had to close- we followed the Ministry of Health's recommendation as we can't properly protect our staff or patients."</i>

Despite the challenges, most projects were able to improvise their workflows, implement new approaches or establish new processes to continue working on their projects (Table 1). Four themes emerged from the qualitative analysis: Concerns over COVID-19, Barriers to accomplishing project goals, Positivity around adaptations, and Despair over lack of ability to overcome challenges (Table 2).

Discussion

This report highlights the resiliency of the ICATCH program and project directors as many ICATCH funded projects overcame significant challenges to adapt in the context of a global pandemic. Despite the pandemic's global impact, the ICATCH projects were uniquely

positioned to rapidly pivot to address these challenges within their communities and continue with their project related activities. The ICATCH program requirement for each project to be led by a local program director helped many of the ICATCH projects meet their objectives and contributed to the resilience of the program. The number of projects that fulfilled all their objectives doubled in 2021 compared to 2020 and Unforeseen budget expenses and major concerns decreased substantially, suggesting adaptation by the projects to the ongoing COVID-19 pandemic. These findings align with the WHO report on continuity of essential health services during the COVID-19 pandemic which showed that while in general, disruptions of essential health services were reported more frequently in lower-income than higher-income countries, the majority of service disruptions were partial,

defined as a change of 5% to 50% in service provision or use although the impact of such disruptions, especially periodic, maybe amplified manifold adversely affecting the health of children.^{2,4} Most ICATCH project directors are frontline healthcare workers who had been significantly impacted by the pandemic both physically and mentally, around the world.⁵ Although, it was not expected that the projects would be able to meet their projected goals given the supply chain shortages, travel restrictions and increased demand for healthcare resources, the efforts of the local directors and their teams enabled most ICATCH projects to fulfill their targets partially or completely, reflecting the in-built resiliency of programs that empower local providers.

The number of project directors who identified insurmountable barriers in their project work remained the same in 2021 when compared to 2020. Barriers posed by local and national policies as well as travel restrictions required program directors to improvise their approaches and, in some cases, put their primary objectives on hold. This is consistent with similar challenges faced by service providers around the world who take care of the most vulnerable population especially children. A survey which included representatives from Non-Governmental Organizations (NGO) serving in 43 countries showed that they also experienced government restrictions, decreased financial support, and inability to adequately provide services. Many of the supportive services were converted to online platforms but the concern about their effectiveness remained a concern.¹¹

The ICATCH project directors and their teams adapted to challenges by converting in-person visits to virtual visits for neonatal follow up, using remote training modalities where in-person training was not permitted and including more accessible learner groups such as in-service healthcare workers and traditional birth attendants. These improvisations may be applicable to other settings or continued in a post-COVID-19 environment to improve efficiency of their systems. This is consistent with reports of how hospitals worldwide have adapted to the surge of COVID-19 patients in a variety of impressive ways. Standardization of care across specialties, minimizing COVID-19 exposure to staff, improving staff education using telehealth for communication, redistribution of resources and making mental health services more accessible are several ways that hospitals have overcome the challenges.⁶⁻⁹

The flexibility, resiliency and creativity seen in these adaptations is truly remarkable.

Local project directors may have been able to work with local partners and resources to pivot and accomplish project goals in timely manner, for example, using videos to replace in person teaching. Increased global use of teleconferencing platforms via mobile telephone

networks also made it possible for the ICATCH liaisons to support the Project Directors and offer real time technical assistance and support to adjust to changing circumstances. The ICATCH program also offered flexibility in approving budget modifications to offset expenses and fewer budget modifications were needed in 2021 compared to 2020. Similarly, many international funding organizations relaxed their requirements for continued and new projects.^{10,11}

This program evaluation had some limitations. The year 2020 was the first year in which the annual reports received rigorous review; therefore, we cannot compare the reported progress with that of previous years. The pandemic continues to be an evolving and sustained crisis and while the current approaches to ICATCH program review will be well positioned to track longer-term impact of pandemic and other threats, this likely will require continued problem solving. ICATCH is exploring ways to incorporate QI and adaptive management approaches into the program and individual projects to better address future uncertainties contributing to project performance. There was no independent onsite evaluation of reported progress or adaptations. Although reports were received from nearly all active ICATCH projects, these findings may not be reflective of small grant programs that are not focused on clinical care and education.

The pandemic continues to be an evolving and sustained crisis. While the more rigorous ICATCH program review will be better positioned to track longer-term impact of pandemic and other threats to ICATCH project progress, this likely will require continued problem solving. ICATCH is exploring ways to incorporate QI and adaptive management approaches into the program and individual projects to better address future uncertainties contributing to project performance.

Conclusions

ICATCH funded projects demonstrated resiliency and adaptations to meet program objectives despite the challenges posed by the COVID-19 pandemic demonstrating greater success in 2021. The described adaptations may be applicable to other local and global projects that focus on clinical and educational activities to improve healthcare in low resource settings.

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