



### **Program Summary:**

Mayanza, Inc. is a not-for-profit charitable corporation that was created by three physician assistants who saw the extreme need for basic health and hygiene education of the indigenous Mayan population of Guatemala. Together, they felt compelled to leverage their knowledge and skills to support the education and health care of the community of Santiago Atitlan, Guatemala. This proposal seeks to continue and expand the work started in 2016 and expanded in 2017 and 2018, with a focus on oral and health screenings and hygiene education. In 2019, two trips will occur, in February and July. Each child will receive a full screening physical exam including measurements of growth and vision screening as well as a dose of anti-parasite medication. In addition, all children will receive dental screening, oral and hand hygiene education, fluoride varnish application and a toothbrush, toothpaste and bar of soap. In addition, we have implemented a train the trainer project. In the project, we partnered with a local educator to teach her the oral and hand hygiene education curriculum with the plan that she will continue to visit the schools and educate the children of this community throughout the school year. Another important aspect of this project is to establish an electronic medical record for the purpose of tracking change over time and collecting data to analyze for outcomes of these interventions.

### **Program Goals:**

We anticipate that this international immersive experience will have a substantial, positive impact on both the school children and surrounding community in Guatemala that we will serve, but also an impact upon the PAs and PA students who will provide the education and distribute supplies for the program. The goals of this program include:

*1. Educate each child, approximately 500 in total, in the four schools that we will serve in oral and hand hygiene and ensure that each child has a toothbrush, toothpaste and soap.*

With the funds from this proposal, Mayanza will again provide the supplies and trained personnel to continue a program focused on health screening and health education. The physician assistants and PA students (PAs) will receive pre-departure education based upon the established standards of hand hygiene<sup>6</sup> and oral health<sup>7</sup> established by the National Health and Safety Performance Standards Guidelines for Early Care and Education Programs, 3<sup>rd</sup> edition. In addition, each provider will complete the Smiles for Life oral health curriculum. These providers and students already have the competencies of a screening physical exam based upon current education standards for a physician assistant. For our intervention, each child will have a medical screening examination, dental screening examination and fluoride varnish application by a PA. The students and teachers will then be educated and the children will be provided with toothbrushes and toothpaste. They will be given sufficient supplies for oral hygiene at school and at home. The long term plan will be for the students to brush their teeth after breakfast each day at school and will each have a toothbrush to use at home as well. Furthermore, we will attempt to educate additional family members that may accompany the children regarding the proper techniques of tooth brushing and the importance of oral health and hand hygiene.

medication, albendazole. Through the treatment of parasites, this intervention will help to decrease the level of anemia and malnutrition within this community. These improvements in health have the potential for long term enhancements in the cognitive and physical development of the school children.

*3. Deepen our relationship with several local and international organizations that serve the Santiago Atitlan community and develop and implement a train-the-trainer pilot program in which we will provide support to a local member of the community to become a school health educator.*

In order to successfully engage this community, we have relied on the partnerships with several other organizations with a presence in this community, including La Escuelita Puerta Abierta, The Sparks Foundation, BEAMS, PEG Partners and the local hospital, Hospitalito Atitlan. Although we feel that our interventions make a significant impact on the local community, a consistent sustained presence to supplement the education that we provide throughout the year would make a much stronger impact. Through our connection with La Escuelita Puerta Abierta, we have recruited a young teacher from the local community. As part of this intervention, we will support her teaching oral and hand hygiene best practices so that this education is reinforced throughout the school year. This health education trainer will travel among the four schools throughout the school year to reinforce a health curriculum using engaging educational sessions and age appropriate health related books. In addition to the services Mayanza will provide, this reinforcement of the important educational content will provide a measurable impact in the long term health of this community.

*4. Develop and implement an electronic record to track data for analysis of trends in the growth of school children and incidence of dental disease over time.*

The last piece of this project is the data collection and analysis to track long term outcomes in this community. In order to track outcomes with this number of patients, it is important to have a data collection system that is efficient, secure and easily accessible in Guatemala and the US. The long term goals of this electronic record is to track health outcomes over time as part of our project evaluation which will shape our future goals and projects.

#### **History of the Project:**

Mayanza, Inc. was incorporated as a registered charitable organization in March 2017. This Program will build on the success of similar trips taken in February 2016, February 2017 and two trips in 2018 that were supported by previous NCCPA Foundation and PA Foundation Global health grants. On the initial trip, the group surpassed previous goals and provided oral health screening, fluoride varnish application and education to 113 students. We distributed over 300 toothbrushes to these students as well as family members and other members of the community. All children also had hand hygiene education and over 100 bars of soap were donated to the schools to sustain the education that was provided. In February 2017, the group once again surpassed initial goals and provided dental screenings to over 320 children. Sixty-five of the worst cases of dental disease were referred to a pediatric dentist for specialty care. The group distributed over 1,100 toothbrushes, 950 tubes of toothpaste and 450 bars of soap. On this return trip, we plan to build on our previous successes and see all 500 children.

Mayanza has partnered with several other organizations with a presence in this community, including La Escuelita Puerta Abierta, The Sparks Foundation, BEAMS in Guatemala, PEG Partners and the local hospital, Hospitalito Atitlan. La Escuelita Puerta Abierta, the Sparks Foundation and PEG Partners have developed an infrastructure of educational initiatives including schools, traveling libraries and music programs. Mayanza uses the infrastructure of these schools and community collaborations to reach the children and families that are served.