



EduGuapi
Al ritmo joven de mi salud

 **Universidad del
Rosario**

En convenio con

 **UNIVERSIDAD
NACIONAL
DE COLOMBIA**

Con el apoyo de

 **ALCALDÍA DE GUAPI**
GUAPI SOMOS TODOS

An Offline App Could Improve Sexual Health in Communities of the Colombian Pacific

In one of the poorest areas affected by violence in Colombia, a group of researchers utilized digital technologies to share information about sexual health among young people in the Colombian Pacific. Their main goal is to generate health education strategies through something obvious, but rare: listening to the community.



← With EduGuapi, young people can access sexual health information to demystify misconceptions and make informed decisions.

By Aleida Rueda

Photos by UROSario, Eduguapi

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It was in 2009 when [Yenny Barreto](#), now a researcher and professor in the School of Medicine and Health Sciences at Universidad del Rosario, came to work in [Guapi](#), a municipality located on the Pacific coast of Cauca, Colombia. There, Yenny devoted herself to developing research and extension projects, thus initiating a deep bond that would unite her to the people of Guapi to this day.

With just over 28 000 inhabitants, 98 percent of Afro-Colombian descent and 2 percent of indigenous origin, Guapi is considered one of the poorest municipalities in the country. Data from the Ministerio de Hacienda ([Ministry of Finance](#)) indicates that 68.9 percent of the population is in poverty, while 28.8 percent is illiterate and labor informality reaches 93.4 percent. In addition to poverty, this municipality has been severely impacted by the armed conflict between groups linked to organized crime and narcotrafficking, which has increased the confinement, [forced displacement, and homicides](#).

Despite this, Guapi is a community full of life and deeply rooted in its traditions and ancestral music, including marimba songs, lullabies and currulaos. “They are very happy people, they may not have something to wear, but they have some-

thing to celebrate and share with the family and the community.

They produce their typical drinks, such as the [viche](#), the [tumbacatre](#) and tomaseca, most of them prepared with medicinal herbs (...). Women are often the heads of households and support each other to meet the needs of their children and families. It is a very feminine solidarity,” says Professor Barreto.

Among the many challenges that the residents of Guapi face, one of the most relevant is the one related to sexual health. According to data from the [2020 baseline strengthening report of the public gender policy in Guapi \(Cauca\)](#), prepared by the Observatory for Women's Equity (OEM), “a minimum of 30 percent of women aged 15 to 19 years in the municipality are pregnant or have already experienced pregnancy.”

“The incidence of teenage pregnancy and sexually transmitted diseases (STDs) is quite

high in the municipality and continues to increase,” explains Sandra Portocarrero, Secretary of Health of Guapi. Other data provided by the official indicate that the pregnancy rate among girls aged 10 to 14 years increased from 3 percent in 2019 to 6 percent in 2020 and 8 percent in 2021.

One of the main causes of this growth is the lack of a comprehensive sexual education policy aimed at children. “Many girls are starting to have sex at a very young age and do not have enough knowledge about their sexual and reproductive rights to make conscious decisions, which makes them vulnerable. Therefore, as soon as they have their menarche (first menstruation) they risk becoming pregnant,” explains the Secretary of Health.

Researcher Yenny Barreto observed the critical situation during the 10 years she worked in Guapi, as she went back and forth seasonally: “There are a lot of teenage pregnancies, a lot of sexually transmitted infections. In addition, many women suffer from gender-based violence, whether psychological, physical or sexual, but a large number of them have normalized it.”

When the COVID-19 pandemic arrived, the situation worsened. “The disruption of in-person classes limited the provision of sex education to adolescents. The community lost its fear of diseases of this type and, despite all the communication and education campaigns, young people refused to continue using prevention measures. One of the problems we identified was the difficulty in raising awareness in the community, both in urban and rural areas,” says Portocarrero.

It was then that MD. [Giovanny Apraéz](#), from the Cauca Department of Health, introduced Yenny and Sandra to seek solutions. “In the pandemic, young people were not going to school, nor had access to other services and only had a cell phone at hand, while they were locked in their homes (...). They told me, then, that they wanted to use information and communication technologies (ICT) to get closer to them and see what their health education needs were,” Barreto recalls.

That was the beginning of [EduGuapi](#), the project of “Health Education for Afro-Colombian people in rural and urban areas of the municipality of Guapi-Cauca through a digital app” which developed the groups [Public Health Research](#) and [GiBiome](#), from Universidad del Rosario, and the research group [Policies, Human Resources, and Health Outcomes](#), from Universidad Nacional de Colombia. The objective, according to Barreto, is to

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generate health education strategies that allow contributing to the construction of a life project and the experience of a healthy sexuality, which at the same time leads to the reduction of unwanted pregnancies, sexually transmitted diseases and gender violence among young people.

A free app created by and for Guapi

EduGuapi is a completely free application and website that offers information on sexuality, family planning, sexually transmitted diseases, teenage pregnancy, violence prevention, and self-esteem enhancement.

“From the beginning, we envisioned spreading these contents through digital channels, because, although in these remote populations, they usually use the brochure or the booklet a lot, that does not last, the information is lost or it cannot be updated,” says the engineer behind the application, [Pedro Antonio Aya](#), of the School of Medicine and Health Sciences at Universidad del Rosario. “We then proposed a digital alternative that would be appealing to young people, as they use a mobile phone all the time.”

EduGuapi is specially designed for the children, teenagers and youth of Guapi, but the most remarkable thing is that most of the contents are created precisely by themselves: from the videos with harmonic melodies of drums, rattles and percussions, to the interviews and audio capsules with neighbors of the community. It also contains games and other interactive activities aimed at generating a digital dialog with users. The team developed a simple and intuitive interface for people to see the information as a series of steps or modules, and move naturally through all the content.



Even though Guapi has internet services, they are not free. In most rural areas, people must purchase plans in order to connect. Therefore, one of the most remarkable aspects of EduGuapi is that it is an offline application, that is to say that no connection to the network is required to access it. “For their first use, they have to connect to the internet in order to download the application, but once installed on the mobile device, young people can use it without having to have a mobile internet plan,” explains Aya Parra.

Another feature of the app is that it was designed based on the input from the residents of Guapi “We were looking to create an educational application that highlighted the feelings and thoughts of the locals, but at the same time gave answers to many needs of the community,” adds, for her part, [Carolina Lucero Enríquez Guerrero](#), associate professor in the Faculty of Nursing at Universidad Nacional de Colombia and co-researcher of the project.

“We did a first phase of diagnosis, in which we asked the general population, the leaders of the urban and rural community, people from the health service institutions of the sector, both public and private, about various topics. We also interviewed health professionals and nursing assistants. We wanted to have a vision of the needs of the community, but also of those who provide health services. Thus we were able to characterize the main requirements of health education. And it was the community itself that answered what demands should be prioritized,” adds the professional.

With this exploration, the group of researchers realized that teenage pregnancies and sexually transmitted diseases, which are often the “highlighted” issues in health reports, are not isolated issues. They were just the tip of the iceberg of a complex web of variables that include, for example, the absence of professional and job opportunities, domestic and economic violence against women, and low self-esteem.



Jenny Barreto, a professor in the School of Medicine and Health Sciences at Universidad del Rosario, understands that an app is not enough to solve the lack of opportunities in Guapi, but she is convinced that timely and appropriate education can pave the way for lifestyles and activities that positively impact their future and that of their families.



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Other possible paths

In Guapi, according to the [data](#) as of 2022 from the Departamento Administrativo Nacional de Estadística (National Administrative Department of Statistics - Dane, by its acronym in Spanish), there are 3717 adolescents, aged between 12 and 17 years. Portocarrero comments that the adolescents who reside in the municipality are mainly engaged in informal work and domestic work.

"The opportunities they have are very few (...). Most prefer to migrate to other cities because employment opportunities in the municipality are very limited. To this, we must add that the public order situation is not good due to the presence of groups outside the law and their activity of recruiting minors to link them to their criminal organizations," says Portocarrero.

Yenny Barreto knows that an app is not enough to solve the lack of opportunities in Guapi, but she is convinced that timely and adequate education can open paths to ways of life and activities that affect their future and that of their families in a positive way. EduGuapi includes, for example, a "tree of life"; it is a scheme with specific questions designed for young people to reflect on themselves and their future: What is my beginning, what have been my achievements, what nice things do I have to give, what are my desires?

"Creating the [tree of life](#) has allowed them to discover that there are other options. Perhaps these boys are still in school, but they can start looking for an alternative to their higher education. In the same app we offer complementary links to the information or where they could communicate to establish support networks according to their needs," says Barreto.

"What we saw in the interviews is that the most normal life plan in Guapi is to reach a certain age and seek to start a family. With the app, we are somehow telling them: there are more options, there are other life projects," says Aya Parra.

The app also provides substantial information on more complex topics such as [family planning](#). Given that Guapi is a community where phenomena such as machismo, gender roles and domestic violence are ingrained, the researchers sought to share information that did not necessarily focus on sex, but on sexuality as a natural and healthy component of all human beings. "Sexuality should be seen as a way to share and take charge of our lives, have loving relationships and make healthy, safe and informed decisions," EduGuapi reads.



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The results

EduGuapi is in the process of quantitative evaluation to know the number of downloads and the level of usability of the app in the municipality. However, the team already has a qualitative assessment in which the community has highlighted how useful this tool has been in accessing new information and addressing sexual health issues among young people.

"Although EduGuapi is not yet well known in the community, a socialization was already carried out with the 11th grade students at [La Inmaculada Normal School](#). The teenagers found it very good, and we have been able to observe that some teenagers are better informed about the issues of sexuality, as a result of using the application," says Portocarrero.

The same opinion is shared by Yamile Riascos, a 46-year-old nursing assistant, who supported the project by contacting community action leaders to tell them about EduGuapi: "The app has helped many people. What I liked the most was the whole process that took place. I liked it because you learn new things, each person contributes knowledge and from each person you learn something new. Projects like this help benefit the community and our children."

For Barreto, these interventions through free-to-access technology have enormous potential. "They allow the municipality's health system to approach the community, develop health promotion and disease prevention actions, while making it easier for young people to seek help in a timely manner in the support networks provided to them, and this applies to both rural and urban areas."

On the other hand, researchers believe that EduGuapi provides information from a perspective that does not judge



the residents of Guapi, but, on the contrary, accompanies them in their decision-making. “One family told us that the app allowed them to learn about and access family planning methods. The son told us that when he read the information his mother also understood what was necessary to create a life project. So, in that particular family, the app led to mitigate, or perhaps prevent, the risk of adolescence pregnancy; also, to the mother to consider the possibility of a different life project,” Barreto emphasizes.

Although the evaluation has not been completed, there are already signs that the content offered by the EduGuapi platform, available to all the residents of Guapi, and especially the fact that the community has actively participated in its creation, had a highly positive impact on both the population and the research team.

Listen to what the community wants

Despite the lack of education, health, housing and services faced by the people of Guapi, and being known in the rest of the country as a red, troubled and violent area, for Jenny Barreto having known her fellow residents for so many years has allowed her to exalt all the value and beauty that the municipality has.

For her, the sex education project in Guapi is different from others that are done in vulnerable communities because it puts the community, its particularities and its needs at the center.

“We, academics, often work hard for what we want, but not for what the community wants. To go and help people, first of all you have to listen to them. That is the starting point and it is something I have learned from them (the people of Guapi), it is better to first listen and then act, and not act alone, but with them.”

The professor also criticizes the so-called parachute science: academics who come to communities like Guapi to develop projects or obtain information to make publications and expand their curriculum, without making any kind of recognition and without working with and for the community.

“Gaining recognition, maybe affection, or getting people to listen to you in these particular types of populations is much more difficult because they already have a history of violence;



“We were looking to create an educational application that exalted the feelings and thoughts of the locals, but at the same time gave answers to many needs of the community,” says Carolina Enríquez Guerrero, associate professor in the Faculty of Nursing at Universidad Nacional de Colombia and co-researcher of the project.

they tell you: ‘You only come to extract information from me; you only come because you want things, you want to publish at our expense and say things about us without telling us,’ says the researcher.

For her, EduGuapi goes beyond the application. It shows that academic projects that aim to help a community must include, from the outset, the same population.

“There are projects that may be interesting for the scientific community, but not for the people who inhabit the territories to be studied. It is clear that there are different ways to investigate, but if you want to build on the results of an investigation, I believe the best way is to do it from what people want; with and for them,” she concludes. ■