Title: The Gap Between: Defining wellness in an under-resourced Peruvian community

**Abbreviations:** NGO - Non-governmental organizations; USD – United States Dollars; HBI – Health Bridges International

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The next decade will see a flurry of analyses of 'what went wrong' with COVID-19- how some countries succeeded, how others failed, and even how the definitions of success and failure shifted as time passed in a global pandemic. What remains clear, however, is that people deserve the chance to build a life of health, hope, home, and purpose. The pandemic has shown the world some critically important lessons: health systems must be dynamic enough to respond to crisis and maintain high standards of care, health itself is far more than just physical, and there is an enormous gap in societies between what is wanted and what is provided.

In 1948, the World Health Organization redefined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." This definition speaks to the need for integration and holism of health systems, and countries of higher economic status have made gradual progress in shifting their healthcare delivery systems and structures around this idea. The Alma-Ata Declaration of 1978 in particular emerged as a major milestone in the field of public health and preventative

medicine, emphasizing the right and duty of people to participate in the planning and implementation of their health care.<sup>2</sup> However, the shift in health services delivery and the very definition of health and wellness have had little permeation into underserved, marginalized, and rural communities in Latin America. Many indigenous, native and first nation cultures have a way of talking about health that is integrated and whole, but have been denied the necessary resources to enact it. They've been saddled with all the burdens of industrialized, centralized, and capitalistic society, but given no tools to forge their way through them. What's needed now is a redefining of wellness that bridges this gap in what is needed and what is received, to expand the gains in health of all peoples of the planet.

# The Project

Defining wellness is made difficult by its inherent subjectivity, in attempting to assign value to components of an individual's experience in hopes of elucidating the whole. There is consensus, however, in the idea that wellness is a multidimensional and synergistic construct, in which each of its dimensions has influence over the others and work in concert to create the concept of "wellness". Within theory texts, it has been suggested that quantitative measures will always be insufficient to capture wellness, and that qualitative measures better serve the abstract nature of the construct. For this reason, this project takes a qualitative approach to the data.

Very little research has been conducted on the subject of wellness or well-being in South America, and is particularly evident in Peru. The aims of this project were to identify themes among perceptions of wellness within a single under-resourced community in Peru, and explore the gaps between the services received by the people and their stated priorities of wellness. This project serves to inform community stakeholders, such as the municipality and local NGOs, of what people of Alto Cayma identify as crucial parts of their wellness. This study was designed to gather insight through conversation. We sought not to insert North American influence into these communities, but rather to start from a place of open exploration, gather stories and perspectives from people about their lived experiences, and build from the stories a more cohesive understanding about the wellness of the people of Alto Cayma.

### Alto Cayma, Peru

Our community of focus is Alto Cayma, in the Arequipa region of southern Peru. Alto Cayma has an estimated population of 32,000 and is located 10km north of the center of Arequipa. Arequipa is the second-largest city in Peru with a population of approximately 1,000,000. Alto Cayma, at an elevation ranging from 2.5-3km above sea level, is positioned on the slope of the *Chachani* volcano and overlooks the city of Arequipa. The average reported income for people in Alto Cayma per day was 28.46 Peruvian Soles (less than \$10USD). Regarding access to basic services, most households (92.5%) have access to at least rudimentary electricity, and only 43.5% report having potable water in the home. Spanish is the primary language spoke at home, with fewer than 9% identifying Quechuan (indigenous unwritten Andean language) as their primary language.

The community of Alto Cayma is significant for our study because it exists on a hypothetical dividing line between "urban" and "rural", being sandwiched between the city of Arequipa and the Andes mountain range. Most community members have translocated to Alto Cayma from the high mountainous regions, in an effort to escape the difficulty of life in the Andes. Data collection in extremely rural regions of Peru, like the high Andes, has been found by non-governmental organizations such as Health Bridges International to be immensely difficult due to a variety of factors, including isolation of communities, poor quality roads, limited transportation options, and variance in local dialects. This made the Alto Cayma population particularly attractive for our current study, because access to the area is made much easier by the local bus system, most Alto Caymans speak Spanish in addition to Quechua (an unwritten dialect in parts of rural Peru), and the community provides a concentrated sample of individuals with intimate knowledge of extreme rural life and rural priorities.

Health Bridges International (HBI) is a non-governmental organization based in Portland, Oregon and is the sponsoring organization for this study. HBI has worked in Peru for over 23 years, creating collaborative projects, developing health programs, and connecting underserved communities to health resources. HBI has a vested interest in Alto Cayma and has collected demographic information and surveyed access to resources such as electricity, potable water, sewer systems, and utilization of healthcare services. The organization is seeking new ways to have a positive impact on Alto Cayma, and is moving their focus towards the exploration of wellness in this unique little

community, with the goal of creating desired programs and services that reflect the values and priorities of its people.

### **Project Design & Implementation**

This cross-sectional study used semi-structured one-on-one interviews, conducted in October-November 2019 (prior to the COVID-19 pandemic) with participants recruited from the geographic area that includes the community of Alto Cayma north of Arequipa, Peru. Participants were selected using a convenience sampling method utilizing the existing presence of HBI and its established relationships within Alto Cayma. Maria Valdivia, a highly trusted and respected social worker who has worked alongside the Alto Cayma Mission for several decades, identified individuals she has worked with in the community who she believed would be open to interviewing, and brought us to their homes or places of work. A total of 39 adults agreed to be interviewed, 38 of whom identified as women, 1 as a man. Interviews included open-ended questions about what wellness means to participants. All interviews were conducted in Spanish by the primary author, with simultaneous translation by a certified interpreter. No personally identifying information was requested throughout the interview. Interviews were audio recorded and transcribed in English following each session. Permission from the Oregon Health & Science University IRB was obtained prior to data collection for the study. Community members under the age of eighteen were not eligible to participate. No personally identifiable data was collected. Data was analyzed by coding for a conceptualization of underlying patterns and themes. Dedoose coding software was employed to organize and code all interview transcripts for analysis. Key ideas within the text were sorted into

crude groupings, which were further refined into specific themes and sub-groupings within themes.

# **Results**

Eight overarching themes emerged from the analysis of how the people of Alto Cayma define and think about the state of their own wellness. These themes include Self, Environment, Community, Religion, Basic Needs, Physical Health, Education and Family. Within each of these themes, either two or three sub-themes emerged. These themes and sub-themes, with representative quotes, can be seen in Tables 1a and 1b.

Theme (N)	Topics Included	Quotes
SELF		
Emotional intelligence (48)	Self-development, managing interpersonal and family relationships, approach to obstacles, stress management	"If you're not well yourself, you're not going to find solutions for your problems. You won't be able to achieve the other wellnesses, you won't be able to socialize with other people, practice sports, you won't be feeling like studying. If I was in my own case not emotionally okay, I would not be able to do other things, even if they were small."
Self-advancement (14)	Desire to learn, professional growth, role models, personal achievement, motivations	"If you feel well and you have the knowledge of how to do things, I think you have a clear path to do things. Because if you want to do things but don't have the knowledge, or the skill, you won't be able to generate solutions for personal things or for work, if you want to have a professional career."
Hobbies (6)	Stress management, self-care, keeping busy	"When I have back pain, sometimes my neighbors ask me if I can knit something for them, and I don't want to, but at the same time I don't want to be lazy, I want to be active. And that's my life-I come here and continue knitting, and with that I distract myself from my pain. I have a good time, and I just get sleepy if I stay at home."
ENVIRONMENT		
Outdoor environment (47)	Contamination, pollution, trash collection, poor quality dirt roads, stray dogs, greenery, recycling, health of the planet, respiratory health, community responsibility	"It is very important to have a good environment. There's so much pollution coming from the city, it is important to have trees because when they grow up they're going to produce oxygen, what we're going to breathe. Because that is going to affect the health of an individual. It's their health as well."
Gardening (15)	Planting trees in public spaces, plants and gardens at home	"In my case, I was one of the first women here to plant trees around the place next to here. They're growing big now, and others have seen that, and now there are a lot of people planting trees. And that is something that I am happy that I helped to start. In five years, you'll find more trees in a green area."
Indoor environment (9)	Importance of cleanliness, personal space	"It's necessary to be clean, it's okay to be poor but not dirty. Poverty doesn't mean dirtiness. We need to maintain the house always clean. We have to clean ourselves, or we get sick."
COMMUNITY		
Community relationships (39)	Communication, supporting others, building trust, seeking advice, being heard	"It's important to communicate, converse, whatever thing you can share with others with trust, advice, right? Many times we don't do it because we're afraid, there's no trust. But little by little we're improving it. So we can have more work too, when you have trusting relationships in your community."  "When you socialize with others, you can share ideas, which gives you a better idea of how to improve, how to improve our houses, our neighborhoods."
Community service (12)	Helping others, collective efforts towards common goals, reaching out	"You need to love yourself, so in that way you can help others. You need to love your neighbors. Continue helping people, especially here in Alto Cayma that need a lot of help, in this neighborhood. They need a lot of help. That's what I think we need to do, maybe find a family that needs help, not only economical help, but in other ways too."
Social activities (12)	Sharing ideas, gathering spaces, keeping busy, stress management	"When we are able to talk to other people, we can learn new things. When you are apart from people, you don't get to learn from them. We all have different ideas, and I've tried some other ideas and sometimes they work."
RELIGION		
Relationship with God (43)	Prayer, reading the bible, attending mass or bible groups	"There are so many things happening in the world now, and sometimes, there's no trust in anyone. So then, we need to know, and get closer to the Lord."
Sharing the word of God (17)	Increasing the community of faith	"There are many people who don't know about God, they don't go to mass, so we need to encourage them. It would be good for people to go visit people in their houses because maybe they wouldn't go by themselves to the church."

Table 1a. The first four most predominant themes out of eight in descending order of total code frequencies (N = frequency of the sub-theme), including theme sub-theme. Key topics were identified within each sub-theme that occurred more than once, as seen in the Topics Included column.

Theme (N)	Topics Included	Quotes
BASIC NEEDS		
Access to water (21)	Scarcity of water, bureaucratic obstacles	"Unfortunately, there is no water. You have to choose between watering the plant or cooking. Sometimes I have to decide between washing my child and cooking that day. That's how it is."
Safety and security (15)	Youth delinquency, substance use disorders, sexual violence, robbery, homicide, absence of police	"Sometimes in the neighborhood there's a lot of violence, but we don't speak of it, and the ones who pay are the kids. This is what I would like to change, that the authorities see this. The authorities delay a lot, and that's not justice."
Financial security (12)	Steady paycheck, financial independence, scarcity of job opportunities	"There's no work and without work you can't eat well, and there are so many kids to take care of. And many times the kids when they grow up can't help much because they also don't have work. So no one succeeds. Everything is about money, and without money, you can't do much."
PHYSICAL HEALTH		
Nutrition (16)	Balanced diet, avoiding junk foods, scarcity of affordable healthy food	"Food is the root of everything. If we don't have healthy food, then we are going to eat whatever is available, even if it isn't healthy."
Physical activity (15)	Keeping youth busy, stress management, community events, group exercises	"Physical activity is very important because when I feel a little bad, I do exercises, I dance, I do yoga, and with those I feel good, and for me that's enough."
Illness prevention (12)	Avoid seeking healthcare due to distance and cost, inadequate health insurance	"People with low income that aren't able to bring their relatives to good clinics, it is important for them to take good care of themselves more than others with plenty of resources."
EDUCATION		
Access to education (11)	Distance to schools, inadequate transportation, poor roads, lack of libraries	"There needs to be more cars that come to the smaller towns, always the kids continue suffering because for school they have to go to the center [of the city]."
Adult education (10)	Desire to learn, keeping busy, sharing knowledge, educational talks, self- advancement	"There are some programs like English classes, or classes to learn how to knit, so I try to participate in those programs, so I can learn a little bit more. I would like to learn a little bit of everything, especially if there's something I don't know."
Youth education (9)	High drop-out rate in secondary school, poor quality education, high youth pregnancy rate, lack of at- home educational resources	"The kids now, are fourteen or fifteen years old with kids, they're already pregnant, and the father leaves, and has another partner, and has more kidsthat's not life. We need to teach and help the youth, to avoid delinquency and pregnancy. You need to work with the youth, because it's difficult to change older people."
FAMILY		
Family harmony (18)	Happiness in family unit, collective achievement, cooperation, stress management, marital problems	"When we are able to solve problems within a family, when we encourage communication. To start with ourselves, try to improve the areas that need improvement."
Parenting (10)	Teaching values, how to contribute to society	"Education of my children, to take care of them, so they can have good education, clean environment, teach them about respect, honesty, responsibility, that would be wellness for my family."

Table 1b. The last four most predominant themes out of eight in descending order of total code frequencies (n = frequency of the sub-theme), including theme sub-themes. Key topics were identified within each sub-theme that occurred more than once, as seen in the Topics Included column.

# **Discussion**

The most important sub-themes were revealed to be emotional intelligence, outdoor environment, relationship with God, and community relationships, which align with the four most important overall themes of self, environment, community and religion. Each

of these sub-themes were often talked about multiple times by single participants, indicating areas of particular passion. However, this passion did not sway the relative importance of overall themes. In comparing these themes with existing literature, we find that Alto Cayma has a unique perspective. Findings in Central Peru, per J. Copestake's 2008 book, "Wellbeing and Development in Peru", indicate that well-being is centered around three focal needs: "to find a place to live better, to build a family, and to progress with security"." The idea of progressing with security is the most relevant need compared to our study, in that both financial security and physical safety were discussed as part of the concept of fulfilling basic needs. Finding a place to live better was not at all mentioned- most talked about improving their current home as opposed to a desire to relocate. Regarding building a family, many Alto Caymans indicated that their families are already built and their goal is to simply maintain them, or help young people avoid building families so quickly, in order to have more time for self-development.

A limitation of the study is that 38 of 39 of our participants were middle-aged women, because the men of Alto Cayma typically are working or looking for work in the fields or in construction during the day. Another limitation of the study is the fact that our community navigator does her social work based out of the Catholic parish established in Alto Cayma, and multiple of our interviews were conducted on the parish grounds. However, she is known for working with all community members regardless of religious leaning. The parish itself is designated based on geographic area, not by concentration of Catholic residents.

### Conclusions

The most authentic and representative definition of wellness, we believe, is one that is tailored to the specific community and its priorities. Given our findings, we propose the following definition of wellness for the people of Alto Cayma: Wellness for Alto Caymans is the individual's perception of their lived experience, with emphasis on their current state, in the context of their existence as a unique self, the physical environment they occupy, the community in which they live and engage, the fulfillment of their basic needs, the condition of their body health, their opportunities for education, and the togetherness of their family.

Peru has been suggested to be one of the "most unequal countries in the world". Though a third world country, labeled as "developing" by the World Population Review, it has higher poverty rates than would be expected given its economic status. Despite improvement in the economy in recent years due to economic initiatives, loans from abroad, and investment in infrastructure", the devastation wrought in Peru by the COVID-19 pandemic undercovers a deep rift in understanding between the government and its people. A year into the crisis, Peru's excess death rate (deaths not directly attributable to COVID but indirectly caused by the pandemic) exceeds 2,610 deaths per million, the most of any large nation. Experts attribute this high rate in part to Peru's weak and underfunded health system, with poor primary care and outdated hospitals.

The world is coming to the point of a great awakening. The global COVID-19 pandemic has shifted the bedrock of our institutions, societies and relationships, and the shift has

made room for growth and development. Wellness is a driving force for health based on vitality and energy and community strength, not the absence of disease. In order to source wellness for all, we must continue to invest in the exploration of how people talk about and manifest wellness in their cultures, communities, and lives. What is needed is an anthology of the meanings of wellness in low- and middle-income communities around the globe; a new manifesto for health. Voices from diverse peoples from every corner are necessary to complete this, and are most valuable from those areas that are suffering most heavily from the COVID-19 pandemic. This small community-based research study was the start of what we hope to be a resurgence in conversation of what it means to be well, a renaissance of ideas for how to get there in the brave new post-COVID world.

### **Acknowledgements**

The authors would like to thank the participants of this study for giving their time to share their perspectives of wellness. We give enormous thanks to Maria Valdivia, an invaluable asset to our work, offering her time and expertise in facilitating introductions with our participants in their home settings. We would like to thank the Alto Cayma Mission and Father Alex for allowing us to conduct interviews in the community spaces of the church. Special thanks to Health Bridges International, Inc for sponsoring and facilitating this project.

### References

- 1. Constitution of the WHO. World Health Organization (WHO). Published n.d. Accessed May 27, 2019. https://www.who.int/about/who-we-are/constitution
- 2. Declaration of Alma-Ata. Accessed March 16, 2021. https://www.who.int/teams/social-determinants-of-health/declaration-of-alma-ata
- 3. Cooke PJ, Melchert TP, Connor K. Measuring Well-Being: A Review of Instruments. *Couns Psychol.* 2016;44(5):730-757. doi:10.1177/0011000016633507
- 4. Roscoe LJ. Wellness: A review of theory and measurement for counselors. *J Couns Dev.* 2009;87(2):216-226. doi:10.1002/j.1556-6678.2009.tb00570.x
- 5. Kirsten TGJC, Van der Walt HJL, Viljoen CT. Health, Well-being and Wellness: An Anthropological Eco-Systemic Approach. *Health SA Gesondheid*. 2009;14:7.
- 6. Adams T, Bezner J, Garner L, Woodruff S. Construct Validation of the Perceived Wellness Survey. *Am J Health Stud*. 1998;14(4). Accessed May 14, 2019. http://connection.ebscohost.com/c/articles/1732957/construct-validation-perceived-wellness-survey
- 7. Díaz D, Rodríguez-Carvajal R, Blanco A, et al. [Spanish adaptation of the Psychological Well-Being Scales (PWBS)]. *Psicothema*. 2006;18(3):572-577.
- 8. Livsey K, Falkenstein K, Centrone W. Community Assessment of Resources and Healthcare Experiences (CARE) in Alto Cayma Community. Published online 2015.
- 9. Livsey K, Centrone W. Community Assessment of Resources and Healthcare Experiences in the Colca Valley. Health Bridges International, UNC Wilmington School of Nursing; 2013:29.

- Health Bridges International: Connecting. Health Bridges International. Accessed
   September 21, 2018. http://www.hbint.org/connecting.html
- 11. Copestake J. Wellbeing and Development in Peru: Local and Universal Views Confronted. Springer; 2008.
- 12. Third World Countries 2020. Accessed December 14, 2020. https://worldpopulationreview.com/country-rankings/third-world-countries
- 13. Taylor L. Covid-19: Why Peru suffers from one of the highest excess death rates in the world. *BMJ*. 2021;372:n611. doi:10.1136/bmj.n611