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COMMENTARY



Challenges, inequalities and COVID-19: Examples from indigenous Oaxaca, Mexico

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ABSTRACT

COVID-19 is a challenge for indigenous communities in Mexico. Social inequalities and limited access to services combine with historical patterns of discrimination to amplify its negative impacts. Nevertheless, there are important ways in which indigenous communities organise and respond. Our paper, organised in three parts, summarises these challenges as well as the response. In the first section, we introduce indigenous Oaxaca and the challenges facing indigenous communities. In the second section, we note the ways in which indigenous communities rely on their traditions in response to the pandemic and limitations they face. In the third and concluding section, we argue that the social inequalities that define indigenous life in Oaxaca must be acknowledged in order to create an effective public health response to COVID-19.

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Introduction

Covid-19 is a serious challenge for the indigenous, ethnic minorities and the poor (Ferrante & Fearnside, 2020; Power et al., 2020). Here, we report on the response of indigenous communities in rural Oaxaca, Mexico. The impact of the pandemic on the indigenous people of Oaxaca has little to do with traditions, cultural beliefs, or local social practices. Rather, as we note, the challenges posed by Covid-19 are complex and rooted in limited state and federal support, inadequate healthcare, and education, as well as substandard services including problematic access to utilities, potable water, and the internet. These limits are not new; rather, they are historical and founded in social inequalities that transcend the present (Díaz de León-Martínez et al., 2020; Power et al., 2020). While understanding the challenges that amplify the pandemic is critical; it is also important to consider the ways in which indigenous communities organise and respond. Like many other population (see the exceptional discussion in Funnell et al., 2019), indigenous Oaxacans are not passive victims of the virus. Rather, they rely on traditions, local practices, and cooperation as well as the limited resources that are at their disposal.

Our paper is organised into three parts. After briefly introducing indigenous Oaxaca, we review the literature and define the challenges facing rural communities. In the second part of our paper and based upon our observations, we note some of the ways in which communities build upon local practices in response to the insufficient engagement of the state. In our discussion and conclusion, we argue that the indigenous villages of Oaxaca are adapting to the challenges of the pandemic;

however, a more effective solution must address how to improve the inadequate penetration of state and federal programmes and integrate local, state and federal efforts.

Our motivation for this work comes from our ongoing anthropological research in Oaxaca (see for example Cohen, 1999; 2004; Cohen et al., 2009) as well as Mata-Sánchez's role as the Rectora of the Universidad Tecnológico de los Valles Centrales de Oaxaca, a centre for higher education in Zimatlán, Oaxaca, Mexico with programmes designed for outreach to the region's indigenous communities and in particular, to empower indigenous women (<http://utvco.edu.mx/>). The pandemic forced the cancellation of our planned research for our National Science Foundation project: *Household Producer Effects of Rural Diet Transformation*, a study of economics, diet and the role of toasted grasshoppers (*chapulines*). While we are not public health specialists, in this commentary, we summarise and combine state and local data with limited ethnographic work to evaluate the local response to the pandemic.

Part I: Indigenous Oaxaca and the challenges of Covid-19

Oaxaca is one of Mexico's most ethnically diverse states and home to 16 minority groups, including Chatino, Mixe, Mixtec and Zapotec. A focus of anthropological research since the earlier decades of the twentieth century (see for example de la Fuente, 1949; Parsons, 1936); the region has been critical to the discussion and study of indigenous life in Mexico and the Americas. In *Mexico Profundo*, Guillermo Bonfil-Batalla describes the indigenous peoples of Mexico as members of a group whose way of life has endured for centuries, resisting outside forces and pressures (Bonfil-Batalla, 1987; Bonfil-Batalla & Dennis, 2010). And while the idea of an indigenous world untouched or in opposition to the West captures an imaginary that is suited to mythologising the Mexican Indian, the reality of indigenous life follows an exclusionary pathway that marginalises and segregates the native (Taylor, 2009) and that continues to the present in global markets (Baskes, 2000), businesses (Wood, 2008) and tourism (Goertzen, 2010). The historical development of the tensions that characterise the global nature of indigenous Mexico are captured in the Wolf's model of the closed corporate peasant community (1957) and more recently in Medrano and Davidson's (2011) discussion of Cuquila, an Indigenous community near Tlaxiaco in the Mixteca Alta region of Oaxaca. The researchers note that community's global history is recapitulated in the expansion of the market for locally made pottery in the 1970s; negotiations over education and schooling opportunities in the 1980s; and most recently as Cuquilaños wrest control of the village's civic life from established national parties (and see Caballero et al., 2018; Taylor, 2009).

A defining feature of many of Oaxaca's municipios is the central role played by *Usos y Costumbres* a self-governing system of local rule that asks community members to invest directly in their village's civil and political life (Hernández Díaz, 2007). The requirements of service can be demanding and compel investing time and effort in village life. Service often extends beyond the physical boundaries of a community to include asking migrants settled elsewhere and who are asked (or sometimes required) to invest time, energy, and resources in their sending village (Mutersbaugh, 2002).

Robson (2019) captures the ways in which migration can destabilise and undermine communal commitments; nevertheless, migrants do serve, and this is captured in Cohen's analysis of cooperation in Santa Ana del Valle, a Zapotec community in the state's central valleys (1999). A migrant is persuaded to return to the village after settling in Southern California and stand for nomination to *presidente municipal*. Following his election and during his term in office (1993-95), he built upon his experiences as an independent contractor to expand the village's electric grid and begin a piped water system among other things. In response to the pandemic, cooperation and the system of *usos y costumbres* have been transformed and now serve as rallying points for community members to use in response to the limited efforts of the state and as a foundation to protect local citizens and their well-being (see the discussions in Paerregaard, 1997; Rabadán & Rivera-Salgado, 2018).

Service to the community takes many forms and it can be an effective pathway to status and standing for individuals and their families. While service celebrates civil society, local traditions

as well as the individual and his strengths (see for example Cancian, 1965), it is not equally available to everyone (Chick, 1984). Furthermore, communities that follow *usos y costumbres* have only recently begun to include women (Eisenstadt, 2007; Vázquez-García, 2013). And while the engagement of women in the political life of the community is a critical step in the expansion of their role in local politics, women are often limited to low status positions (Worthen, 2015).

Furthermore, as systems of *usos y costumbres* are integrated and updated with the inclusion of the voices of women as well as migrants settled abroad (Stephen, 2007), much of their energy is consumed by local affairs and not in response to state and federal programmes that dominate the control, design, organisation and delivery of aid. While federal programmes are often developed around progressive goals, for example the expansion of healthcare and hospitals into rural Mexico, their positive impacts on rural education, indigenous healthcare and infrastructure are limited at best (Pérez Velasco Pavón, 2014; Platteau, 2009; Ramirez, 2006). We argue that understanding four critical areas impact responding and preparing for the pandemic (and see the discussion in Meneses-Navarro et al., 2020).

- The structural disengagement of the federal government from local affairs and rural poverty (for a detailed history of this issue, see Murphy & Stepick, 1991).
- Inequalities around education and educational opportunities that limit learning, information sharing as well as training for native people (see for example, Shepherd, 2015).
- Socio-economic marginality and socio-cultural differences that undermine access to and delivery of healthcare (see Salinas et al., 2010; Servan-Mori et al., 2014).
- A lack of investment by the state and federal government in local infrastructure which limits access to potable water, electricity as well as the internet and communication technologies that would support development (see for example, Baker, 2016; Rowles et al., 2018).

Indigenous poverty

CONEVAL (Consejo Nacional de Evaluación de la Política de Desarrollo Social—The National Council for the Evaluation of Social Development Policy) estimates that 69.5 percent of Mexico's indigenous population (approximately 8.5 million people) live in poverty. An additional 23.6 percent of indigenous Mexicans are socially vulnerable and economically precarious (CONEVAL, 2019). The challenges of rural poverty include limited incomes, limited access to education and health care services as well as high levels of food insecurity (Castañeda et al., 2019; Juarez & Gonzalez, 2010; Magaña-Lemus et al., 2016; Villarreal, 2014).

Education

Carlos Monroy (2019) notes that more than 10 percent of Oaxacans are illiterate, more than double the illiteracy rate for the nation as a whole. Close to 12 percent of Oaxacans do not complete elementary education, and INEGI (Instituto Nacional de Estadística y Geografía, the National Institute for Statistics and Geography) estimates that on average, most Oaxacans who do attend school typically complete 7.5 years of classroom training, or about 1.5 years beyond elementary instruction. Recent research on the impact of the pandemic on education note that Covid-19 will 'explode' the achievement gap between low, middle- and high-income households (Basto-Aguirre et al., 2020; Limón-Vázquez et al., 2020).¹

Schools closed throughout the country in response to the threat of Covid-19 and pivoted to virtual classrooms beginning in March 2020.² In place of classroom training, parents were asked to home-school. Yet, the lack of lesson plans, computers, and internet access as well as the problematic levels of achievement by rural parents interrupted delivery and thereby compounded the increasing gap in achievement. And while schools are planning to reopen, fall 2020 instruction will begin in virtual

space and assumes that there is adequate access to technology; parents can manage instruction and there are the time and resources available for students and parents to actively participate.³

The challenges around meeting educational goals during the pandemic are not simply about access to the technology, training, and the resources necessary to learn. The difficulties created by the pandemic highlight the ongoing impact of indigeneity and poverty on education (see figure 1.1 in INEE, 2019). Complicating opportunities for learning during the pandemic are a lack of teachers with training in native language. Where bilingual education is possible (about 8 percent of classrooms across the nation according to Monroy, 2019) programming tends to translate Spanish language lessons with little regard for local practices and traditions (Barriga Villanueva, 2019–2020; Hamel, 2017). The marginal physical status of most rural schools further contributes to the challenges facing students, parents, and teachers once they can return to the classroom. Schools lack technology, equipment, PPE, and access to utilities that might enhance physical spaces for in person learning (Santibanez et al., 2005).

Healthcare

Adequate and accessible healthcare is critical to addressing needs and supporting rural, indigenous communities as they respond to Covid-19. Nevertheless, access to healthcare in Oaxaca lags the nation and remains a serious problem for rural and indigenous communities throughout the state (Maxwell et al., 2018; Pelcastre-Villafuerte et al., 2014). While the rate of infection in Oaxaca is lower than for most of Mexico⁴ with a total of 326 of the state's 520 municipios reporting at least one case of Covid-19, care is complicated in the state by comorbidities (in particular hypertension, diabetes and obesity) as well as a lack of access to specialists and clinical care (see Díaz de León-Martínez et al., 2020). Nearly 16 percent of Oaxacans lack direct access to healthcare of any sort (Martínez-Martínez & Rodríguez-Brito, 2020) and of those who can find healthcare about 68 percent are covered through Seguro Popular (recently replaced by INSABI-Instituto Nacional de Salud para el Bienestar, the National Institute for Health and Wellbeing).

The Seguro Popular programme has led to increased opportunities for care throughout the country (see Chemor Ruiz et al., 2018; Leyva-Flores et al., 2014; Servan-Mori et al., 2014). Nevertheless, challenges remain for members of indigenous communities (Ashton, 2012). Poor integration of public programmes, a lack of bilingual programming and a history of mistrust of healthcare workers limits effectiveness as do long held assumptions by non-indigenous Mexicans that tend to portray natives as less able and intelligent (Leyva-Flores et al., 2013). Additionally, elderly rural Oaxacans typically disregard Western style healthcare and will often choose to ignore symptoms as well as treatments and silently suffer (Krause & Bastida, 2010). Further complicating the response and access to treatment around the pandemic, indigenous Mexicans are less likely than their urban counterparts to visit healthcare workers, doctors and hospitals, and are much less trusting of physicians and healthcare workers as well as healthcare programming (Martínez-Martínez & Rodríguez-Brito, 2020; Salinas et al., 2010).

Rural Oaxacans mistrust doctors and are mistrustful of Western recommendations that are promoted by public healthcare workers with little concern for local traditions, language, and histories. Compounding the problem is the structural distance that separates indigenous and mestizo (Servan-Mori et al., 2014). Ethnic differences become social inequalities as the historically poor treatment of native peoples by the state create additional health challenges. In other words, the gulf separating healthcare workers and indigenous patients is exacerbated by the bigotry and discrimination that indigenous Oaxacans often face when they seek out aid (for a historical discussion of this challenge see Stebbins, 1986).

Infrastructural challenges

Programmes and recommendations to address Covid-19 appear on social media sites and are translated for native groups, including Zapotec, Mixtec and Mixe speakers in Oaxaca. Posted on media

sites, these public service announcements tell their audience what they should do to maintain a clean household and protect themselves. Unfortunately, rural Oaxacans who might benefit from the information lack access to cellular and Internet technologies and cannot access the web sites.

Access to the Internet remains low in Oaxaca. Mecinas Montiel (2016) notes that as recently as 2012 only about 10 percent of Oaxacan households had access to the Internet and most of that access was concentrated in the state's capital city and surrounding villages. Access to the Internet is further complicated by generational differences within indigenous communities as well as by Internet providers who tailor their products to young, urban populations (Cruz & Robles, 2019). Most Internet users are young, and do not work. Older adults, including economically active Mexicans over 45 years of age represent only about 12 percent of Internet users, limiting the effectiveness of the programmes. Furthermore, because the Internet is often seen as a 'toy' or a distraction from work, social media is not always approached as useful (though see Wortham, 2013 on the role of social media on the social life of rural Oaxaca). Cellular phone service is also spotty throughout the state. And while Oaxaca's central valleys and larger communities often have access to signals, smaller rural communities are confronted by steep terrain and limited investments by major carriers leading to a lack service (see González, 2018).

While the advice, information and best practices that are summarized in the media are meant to build toward a positive Covid-19 response their distribution is limited and problematic. First, for many poor, rural and indigenous households the suggestion that they adopt strict rules around handwashing (and other activities) assumes that they have access to a regular source of water. This is not always the case. Many indigenous homes lack indoor plumbing and water must be hauled by hand daily or delivered. Water that is brought into a home can be expensive and much of it is not potable (Rowles et al., 2018). Second, many rural Oaxacans do not have access to cellular technologies and cannot afford the costs of cellular service to access message (see the discussion of North American communities in Erwin et al., 2020). Third, the announcements that are produced for indigenous audiences are typically developed to communicate effective solutions to the pandemic and Covid-19; nevertheless, these public service announcements are organised around popular perceptions of indigenous culture and society and the assumption that indigenous people must be protected from something they cannot understand or counter (Nova, 2003; Stephen, 1996). Fourth, because many of the public service announcements are developed without local input, the messaging often lacks local nuance (Funnell et al., 2019). Fifth, once presented, evaluating the effectiveness and impact of these programmes in an indigenous setting does not happen. Finally, it is likely that there are other challenges (for example, other health concerns may be more critical, see Díaz de León-Martínez et al., 2020) that Covid-19 messaging overlooks, preempts or ignores (Walshe & Nunn, 2012).

The pandemic and migration

The pandemic and Covid-19 are not bound physically, rather they challenge indigenous Oaxacans who shelter in their hometown as well as others who migrant. While Oaxacans who remain in their natal villages contend with a limited healthcare, a history of discrimination and a collapsed or collapsing economy; Oaxacan migrants often face other uncertainties abroad. Migrants must balance issues of citizenship, growing xenophobia and mistreatment as well as costly and limited access to medical care against the fear of infections as well as the need to work and remit to support their families (see for example Clark et al., 2020; Méndez et al., 2020).

For local populations in Oaxaca decision making around migration and migrants is complicated by the many unknowns that surround the pandemic and include how the Covid-19 virus travels, how infections grow as well as the signs of infection and how best to respond. Leaders who have limited resources and few contacts with healthcare professionals must cope with the fear and a lack of information. Additionally, while village leaders are defined by their shared responsibility to their village and a commitment to local traditions; their decisions reflect upon their dedication

and connections as well as their ability to respond and manage other debates that can range from the petty to the serious (Andrews, 2018, p. 30).

Suffering, fear, and expectations for the future become serious settings for debates and contests as rural populations respond to the pandemic with limited state support, limited information, and limited access to healthcare. Facing a crisis like the pandemic, a community's decisions reflect on their marginality in relation to the state and nations, as well as their fears and anxieties; but also, on maintaining control and sometimes on settling old scores and contests. In some cases, the return and integration of the migrant and her or his family into the community becomes a proxy for debates that have little to do with the pandemic.

Migrants living outside of their natal hometowns face another set of challenges that can develop around remittances and their obligations to family members and villagers who have not moved. Remittances are critical to the survival of many rural, indigenous communities and households in Oaxaca (Cohen, 2004), and Oaxacans settled in regions like southern California (Rios, 2019) support their communities through remittances as well as their investments and these cannot be underestimated (and see Cohen, 2010). Li Ng (2019) notes that since 2014, remittances have grown substantially. Over 1.58 million \$US was returned to Oaxaca in 2019, an increase of 12.8 percent from 2017. And while remittances rates were predicted to decline by as much as 20 percent in response to the pandemic (Quinn, 2020); returns to Mexico have been surprisingly resilient (see Colato, 2020).

Part II: Responding to the pandemic

While indigenous communities struggle with a history of social injustice, inadequate healthcare, and limited access to services as well as technology; there are ways in which they have organised in response to the pandemic. Mata-Sánchez learned of these responses through her contacts with municipal village leaders in smaller, indigenous communities south of Oaxaca City and near Zimatlán, Oaxaca. First, municipal authorities promote social distancing and masking. Second, they are defining creative ways to set territorial boundaries and protect villagers. Third, villagers are rethinking consumption and turning to traditional food sources, including kitchen gardens and local markets, to cope with declining incomes and shortages. Finally, traditional forms of cooperation are being revitalised around family needs in response to a lack of state funded healthcare and the challenges of the pandemic.

Local support for masking and social distancing is based upon recommendation by the state and federal guidelines. Nevertheless, leaders cannot simply command local adoption of these practices. Rather, leaders blended a tradition of care and support with new guidelines to create an environment that is conducive to masking and the practice of social distancing (on Bolivia see Kaplan et al., 2020). While there are rural Oaxacans who can afford the costs of masking, many people cannot. In response, some villages have developed mask-making programmes and are messaging best practices around traditional forms of commitment (Lessner, 2020). Importantly, the endorsements shared by local leadership tend to come without the debates over the value and veracity of the recommendations that are typically framed in political terms and often become a space for political parties to compete (Vázquez, 2020).

While fear of the unknown and the challenge of limited resources can motivate responses, authorities are finding creative ways to set territorial boundaries in an effort to isolate and protect local populations and to rethink the limits on effective patient care by the state. Some leaders block the main entrances to their communities and have even stationed *topiles* (civil guards) to limit access. Communities are also organising communal labour squads to support families in crisis, care for gardens, share food and help with transportation.

In lieu of support from the state and federal government and while structural inequalities drive poverty and make access to markets and goods difficult, the inhabitants of indigenous communities are returning to the consumption of traditional foods and relying more on

kitchen gardens. Locally sourced produce covers much of the shortcomings that are associated with the pandemic and a result of the limited access rural households have to markets, particularly as they cope with declining incomes and job loss. In an interesting twist, foods that were losing popularity are being revived to replace other foods that are in short supply and/or expensive (on food insecurity and Covid-19; see Smith & Wesselbaum, 2020). Turning to locally sourced alternatives during a crisis is not new; rather, it is based on practices that date at least to a series of droughts that threatened the region in the 17th, 18th, and 19th centuries (Endfield et al., 2004). Local, community markets are also gaining strength and importance as villagers are restricted to their hometowns and cannot travel to nearby markets. This is a shift from the growth of major chain grocery stores as well as an expansion in demand for prepackaged foods (see discussion in Rindermann & Cruz, 2003).

In the most interesting of developments, the tradition of reciprocity; *guezá* or *gozona* in the sierra (mountains of the state), *guendalizáa* in the isthmus of Tehuantepec and *guelaguetza* in the central valleys of the state, and the foundation of cooperation in many indigenous communities (Cohen, 1999), has been strengthened and amplified as villagers turn to family and friends to confront uncertainty and economic hardship in the region.

Part III: conclusion

The challenges of the pandemic and Covid-19 are exacerbated by a history of structural inequalities as well as limited access to educational opportunities, healthcare, and services (including potable water and the internet). These challenges are further complicated by inadequate support from state and federal programmes and a history of structural inequality as well as discrimination. Left to respond as best they can, we have argued indigenous villagers are coping with the pandemic. Nevertheless, it is important to remember that their solutions to Covid-19 are limited; villagers are getting sick, information and support are limited and sometimes contradictory, and decision-making carries costs. Manrique De Lara and De Jesús Medina Arellano (2020) note that planning around the pandemic often ignores critical issues like domestic violence, and in particular violence against women; unfair labour practices, and other health crisis such as hypertension, diabetes and obesity. These problems include immigrants living beyond the confines of the state and undocumented Oaxacans living in the US (Méndez et al., 2020). Increasing state and federal support for interventions and developing training programmes to better meet rural healthcare needs is critical to an integrated pandemic response. However, these developments must be accompanied by listening to and working with indigenous communities and perhaps more importantly, acknowledging the historical and structural inequalities that limit contemporary indigenous life.

The effect of the pandemic on indigenous communities throughout Latin America, like the experiences of indigenous communities in Oaxaca, reveal the structural deficiencies in health services, education and utilities as well as the technological gap that confound an ability to develop an effective response (Meneses-Navarro et al., 2020). Today, more than ever, it is critical that we demand state and federal leadership work collaboratively with local municipal authorities and community leaders to create a framework that is just, inclusive and non-discriminatory (see for example Gwede et al., 2013).

The strength of indigenous communities to organise and respond to the pandemic is a positive sign of their power. However, local voices and community support alone cannot resolve the threat of infection and it cannot address the roots of injustice and the marginality that are associated with indigenous life in Oaxaca (and beyond). In other words, while the resiliency and self-reliance of indigenous Oaxacans is not surprising, it should not be the goal. Federal, state, and local efforts can be harmonised to create a framework that responds to a history of social injustice and builds upon shared strengths while recognises implicit biases in meeting the challenges of the pandemic.

Notes

1. See also the blog by Rothstein, *The coronavirus will explode achievement gaps in education*, at <https://www.epi.org/blog/the-coronavirus-will-explode-achievement-gaps-in-education/>; and, Di Gropello's world bank blog, *The costs of COVID-19 in education in Latin America. Acting now to protect the future of our children*, at <https://blogs.worldbank.org/education/costs-covid-19-education-latin-america-acting-now-protect-future-our-children>.
2. <https://www.gob.mx/sep/es/articulos/comunicado-conjunto-no-3-presentan-salud-y-sep-medidas-de-prevencion-para-el-sector-educativo-nacional-por-covid-19?idiom=es>.
3. <https://aprendeencasa.sep.gob.mx/>.
4. CONEVAL estimates that Oaxaca was home to 13.3 thousand Covid-19 cases, or about 2 percent of the nation's total of 553,500 as of August 29, 2020; <https://coneval.maps.arcgis.com/apps/dashboards/db5c233bb31f4c4189ded7d0edcacf92>.

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