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Full Length Article

Ripe for Better Post-War Governance? The impact of the 2016 peace agreement on the reestablishment of health services in Colombia☆

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A B S T R A C T

A peace agreement represents a chance for the state to renew its social contract with the conflict-affected population. Conflict may reoccur if their expectations of a peace dividend are disappointed. However, in the existing literature there is a lack of focus on post-war public services and the challenges to re-establishing effective state governance, especially in areas with significant rebel presence. Much of the literature still assumes that conflict zones are ripe for better governance and the post-war impact of rebel governance remains largely unanalysed. Drawing on original survey data, interviews and focus groups, this mixed-methods article analyses the impact of the 2016 Colombian peace agreement on health services in areas with high conflict intensity and sustained rebel presence. In the most conflict-affected areas, it finds an increase in demand for health services but no improvement in the perceived quality of this care. In fact, in municipalities hosting FARC reintegration camps, which were specially targeted for improved healthcare, we find a decline in both demand and perceived quality. Three key obstacles are identified: 1) favourable views of wartime healthcare services provided by the FARC; 2) difficulties establishing state presence locally; 3) high expectations and mistrust of government provisions. This demonstrates the lasting impact of wartime rebel governance, and the challenges it poses to post-war state legitimacy, and adds to our knowledge of the underlying mechanisms of uneven state capacity. It thereby makes an important and original contribution to our understanding of peacebuilding obstacles and to the growing literature on rebel governance.

1. Introduction

The period following the signing of a peace agreement is a time of opportunity and peril. The state's right to rule was directly challenged during the civil war and the negotiated peace represents a chance to renew the social contract. If the state fails to (re)establish effective governance, armed actors can strengthen their position anew and endanger the peace. The local population needs to feel the benefits of the negotiated solution, or the peace agreement risks losing its popular backing and conflict may reoccur (see e.g. Cox, 2016; Darby & Mac Ginty, 2008). However, effective post-war governance is made difficult by resource constraints, security issues, and other legacies of uneven state capacity (see e.g. Sánchez-Talanquer, 2017). This represents an important obstacle to sustainable peace, yet these challenges are under-analysed in the existing literature, including the lasting impact of wartime governance. Conflict zones are not *tabula rasa*. Alternative forms of wartime governance, including rebel governance, usually emerge (see e.g. Arjona, 2016; Mampilly, 2011), but the post-war impact remains largely unanalysed.

Conflict zones are sites of competing legitimacy projects, where both the state and its rivals seek to demonstrate their ability to govern effectively (see e.g. Revkin, 2021). Following the signing of a peace agreement, the state must re-establish its legitimacy by responding to expectations of a better quality of life (Cox, 2016). Nevertheless, there is a lack of focus on post-war public services in the existing literature, and a near-complete absence of analysis of the particular challenges faced in areas that were under long-term rebel control, or where control was severely contested. Much of the peace and conflict literature is still based on the implicit assumption that conflict zones are anarchic and therefore "ripe for 'better' forms of governance" (Justino, 2019). However, it cannot necessarily be assumed that a peace agreement will result in more effective state presence in all former conflict zones, or that any form of governance will represent an improvement from the wartime situation. This depends on what was provided during the war. State capacity is inherently relational, emerging from the interplay between states and the societies they rule (Sánchez-Talanquer, 2017, p. 113), and it is consequently affected by the expectations and trust of the local population.

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In this mixed-methods, interdisciplinary article, we aim to address this important gap in our understanding of challenges to post-war stability. We focus on healthcare, which is often regarded as crucial for legitimacy, as it involves a key claim to statehood: the ability to ensure the physical security and health of the population (Martínez & Eng, 2018, p. 239). We analyse the impact of the 2016 peace agreement on health services in Colombia and examine how this was mediated by the effect of rebel governance.

The Colombian case is particularly well-suited for this analysis of the effect of peace agreements on public provisions and the impact of wartime rebel governance. The 2016 agreement between the Colombian government and the Revolutionary Armed Forces of Colombia (*Fuerzas Armadas Revolucionarias de Colombia*, FARC) was centred on the improvement of living conditions in the conflict-affected areas and healthcare was one of the priorities (Final Agreement, 2016). This was seen as an important first step in trust-building, both with local communities and ex-combatants (Durana, 2018). Therefore, we would expect to see a positive impact of the peace agreement on public provisions. The existing literature on rebel governance has frequently analysed wartime governance by the FARC, but its provision of healthcare to the civilian population is generally held to be limited (see e.g. Arjona, 2016; Stewart, 2018). Moreover, by the time of the signing of the peace agreement, the position of the FARC had significantly weakened, and its wartime governance was declining (see e.g. Pettersson, 2013). Colombia can therefore be regarded as a critical case for our study of the impact of rebel governance: if we identify a post-war impact of rebel governance in this case, we can expect such an effect to be widespread, and even more pronounced in cases with higher and more sustained levels of wartime governance.

The article proceeds as follows: 1) We discuss the existing literature on post-war public services, legitimacy, state capacity, and wartime rebel governance, and use this to develop a framework and hypotheses for our empirical analysis; 2) After presenting our mixed-methods approach, we draw on original survey data from Colombia's Meta *departamento* (Fig. 1) to examine the impact of the peace agreement on health services in areas of high conflict intensity and sustained rebel presence: what was the effect on healthcare demand and (perceived) quality? 3) We then use extensive qualitative data – from interviews and focus groups with nurses, health trainees and conflict victims – to examine the underlying dynamics.

The article finds an increase in demand for health services concentrated specifically in the areas most severely affected by the armed conflict, but no improvement in the perceived quality of this care. In municipalities that were specifically targeted for improved healthcare, since they hosted a reintegration camp for former FARC combatants and their families, we even find a decline in both demand and perceived quality. Three key obstacles to effective post-war governance are identified: 1) favourable views of wartime healthcare services provided by the FARC; 2) difficulties establishing state presence locally; 3) high expectations and mistrust of government provisions. These findings demonstrate the lasting impact of wartime rebel governance, and the challenges it poses to post-war state legitimacy. They also add to our knowledge of the underlying mechanisms of uneven state capacity, including the importance of local expectations and trust. The article thereby makes an important and original contribution both to our understanding of peacebuilding obstacles and to the growing literature on rebel governance.

2. Post-war provision of public services

State capacity is often argued to reduce the risk of conflict and war. Strong states limit the opportunity for armed conflict, and states with capacity are also better able to meet the needs of their citizens and address any underlying grievances, thereby reducing the likelihood of conflict (re)occurrence (see e.g. Sobek, 2010). An emphasis on the non-coercive dimensions of state capacity is also found in the many approaches to peacebuilding that assume a link between the provision of public services, state legitimacy, and peace. For example, the "hearts-and-minds" approach to counterinsurgency argues that the government must build legitimacy within the local population by addressing their grievances and outperforming any rivals (Schoon, 2017, p. 735). Likewise, "statebuilding for peace" models, such as the one endorsed by the UK's Department for International Development, stress the need to strengthen state-society relations, including by responding to public expectations for the delivery of basic public services (Cox, 2016, pp. 486-7). Notwithstanding this emphasis on public services, there is a lack of focus in the existing literature on the post-war challenges to establishing effective state governance.

An improved security situation should have a positive impact on the provision of public services, including healthcare. The different dimensions of state capacity interact and a minimum level of local strength, or presence, is required for the effective delivery of services (see e.g. Holmes & De Piñeres, 2014; Revelo-Rebolledo, 2019). A reduction in violence will make it easier to re-establish services disrupted by the conflict and improve access to existing services. In one of the few existing studies of the health effects of peace agreements, Joshi (2015) finds that the implementation of a comprehensive peace agreement leads to a reduction in child mortality, since the grievances of the poor and marginalised communities can be addressed, and the health sector reconstructed. However, this analysis is based on national level data and does not take into account the geographic unevenness of the state. Uneven state capacity is an emerging research agenda (Revelo-Rebolledo, 2019) and while the causes and effects of such unevenness remain under-analysed, we would expect it to be reinforced by variation in conflict experiences.[2] Although the relative improvement in public services should be greater in areas that have experienced high levels of conflict intensity and rebel presence, there will likely be significant obstacles to effective post-war governance in these areas. Uneven state capacity has lasting effects, the security situation could take longer to improve, and the impact of rebel governance may linger.

Sánchez-Talanquer (2017) has demonstrated the political roots of geographic variations in state strength and its persistent effects. Consequently, we would expect uneven capacity to affect both the existing availability of the resources required for establishing effective healthcare in conflict-affected areas, as well as the willingness to fill any resource gap. The necessary resources are significant and include financing, human resources, physical infrastructure, and essential drugs, which can be "inherited from the pre-conflict health system, donated by international actors, or generated from within the country" (Waters, et al., 2009, pp. 201, 208).

However, post-war health services are impacted not only by the local security situation and the level of resources committed to the reconstruction of healthcare in specific conflict-affected areas, but also by levels of trust in the government and expectations of post-war improvements. The lasting impact of an uneven state includes societal attitudes and behaviours towards the state, which matters since state capacity is inherently relational and depends on the interplay between the state and the local population (Sánchez-Talanquer, 2017, p. 113). As Witter et al. (2015, p. 10) argue, there is a two-way relationship between post-war public provisions and legitimacy (see also Berman et al., 2011; Schoon, 2017). The reconstruction of healthcare positively affects the legitimacy of the state, but the ability to provide effective services is affected, in turn, by this legitimacy (Witter et al., 2015). This relationship also depends on whether local expectations are met. As Darby and Mac Ginty (2008: 359) point out, benefits are expected to flow from peace agreements and post-war stability could be threatened if public provisions are found lacking. Local expectations, and the perception of achieved benefits, will be affected by the legitimacy of the post-war

[2] For the link between conflict and reduction in state capacity, see e.g. Cardenas et al., 2016.

situation, by pre-war state capacity, *and* by what was provided during the war, including by rebel forces.

3. Wartime rebel governance

Territories outside the state's effective control were once viewed as dangerous black holes in the state's sovereignty where anarchy ruled (Caspersen, 2012), but there is now a growing body of literature focused on 'rebel governance'. Even during intense fighting, conflict zones are rarely left completely without governance (see e.g. Arjona, 2016; Mampilly, 2011). However, the degree and form of such wartime governance varies. Arjona (2016) distinguishes between 'aliocracy', where the non-state armed actor does not intervene beyond security and taxation, and 'rebelocracy' which includes more extensive interventions, such as education and healthcare (Arjona, 2016). There are several examples of rebels providing healthcare, not only to their combatants but also to the civilian population. For example, Hezbollah in Lebanon is heavily involved in providing healthcare to the Shia community and it runs modern, well-equipped hospitals and local health clinics (Berti, 2013, p. 40; Schlichte, 2009, p. 147). Similarly, Maoists rebels in Nepal trained more than 2000 health workers and provided health services in remote villages (Devkota & Van Teijlingen, 2009).

Several factors have been found to explain variations in rebel governance, such as resources and strategic concerns (Arjona, 2016; Mampilly, 2011; Mampilly & Stewart, 2021). Two of the factors often associated with high levels of governance are not characteristic of the Colombian case: prolonged territorial control by the rebel forces (see e.g. Kasfir, 2015, p. 28; Mampilly, 2011), and a secessionist agenda (Stewart, 2021). However, rebels may be able to deliver relatively extensive forms of governance, including healthcare, in areas of contested control. Uribe (2017) argues that in Colombia, the FARC sometimes relied on mobile clinics to provide healthcare, thereby avoiding the need for territorial control (Ibid.). The FARC also appear to have provided more indirect forms of governance: the local authorities continued to provide public services, but they were funded by taxes collected by the FARC (Leech, 2011). Moreover, the incentive to provide such governance is not confined to secessionist groups. Non-secessionist groups also sometimes engage in "competitive governance" and supply public provisions as part of a strategy to convince the civilian population to stay (Revkin, 2021), or to signal policy priorities in their intended new order (Mampilly & Stewart, 2021).

Therefore, conflict zones are likely to have seen competing legitimacy projects, and the degree and format of wartime rebel governance will have varied over time and place. Below, we argue that even low levels of rebel governance can affect post-war governance provisions: the demand for services and their perceived quality.

4. Post-war impact of rebel governance

Although there is a growing body of literature on wartime rebel governance, there are only a few studies of its post-war effects. Huang (2016) analyses its impact on post-war politics and finds that post-democratization is more likely if rebels relied heavily on civilian mobilization. However, she does not find any impact of rebel institution-building on post-war regimes. Other scholars have pointed to a detrimental impact on post-war interpersonal relations, which could add to the challenges of post-war governance. Kubota (2018) analyses the impact of rebel governance on interpersonal trust in post-war Sri Lanka and finds that it is weakened by the experience of higher levels of service provision from the Liberation Tigers of Tamil Eelam. Stewart (2021, p. 271) suggests that if rebel governance results in changes to pre-existing social hierarchies, this could lead to social scars and localised violence in the post-war period.

However, it has also been argued that wartime rebel governance could aid post-war governance capacity in conflict zones. Devkota and Van Teijlingen (2009) advocate for rebel health services to be integrated into post-war Nepal's existing health system, leading Stewart (2021, p. 271) to suggest that the integration of rebel-created governance could have a positive impact on the state's capacity, especially in rural and peripheral regions. Nevertheless, we currently lack analysis of such hypothesised impact on governance capacity. Justino and Stojetz (2018), in their study of Angolan ex-combatants, find that those who had participated in wartime governance were more likely to participate in local collective action twelve years after the war. But they also note that this positive effect on local and collective forms of governance may be at the expense of national governance. This points to possible tensions between different forms of governance, even after the end of the war.

If rebel governance is dismantled, there is a risk of a governance vacuum unless the state is able to establish its presence. This refers to both a vacuum in security and the provision of other public services. As argued above, there will be expectations of a local peace dividend: the civilian population will expect the peace agreement to improve their quality of life. If rebels provided healthcare and other public services during the war – if it were a 'rebelocracy' in Arjona's (2016) terms – the threshold for meeting popular expectations would be higher. Not because rebel governance was necessarily of a high quality, but since the comparison will not be with a wartime absence of provisions. If the quality or availability of post-war healthcare is found wanting, this could affect patient demand. Such perceptions would both affect and be affected by levels of trust in the peace agreement and the state.

All else being equal, lower and less-sustained levels of rebel governance should have a less significant impact on post-war provision of public services than higher levels that were sustained for longer. However, even if health services and other provisions were mostly reserved for combatants, and wartime rule was therefore more like an aliocracy (Arjona, 2016), a gap in their continued delivery could still present a challenge: dissatisfaction among ex-combatants could risk undermining the crucial process of disarmament, demobilisation and reintegration (see e.g. Caspersen, 2017). Moreover, the *level* of rebel governance may not be the only thing that matters. There is a growing body of research into *how* rebels govern (Mampilly & Stewart, 2021), but this newer literature has mostly focused on political institutions, and the inclusion of civilians (see e.g. Breslawki, 2021). The *format* of service delivery – how it is organised and distributed – has generally not been analysed. However, Revkin (2021) has shown how perceptions of the quality of rebel governance, its effectiveness *and* fairness, are crucial for the decisions of the civilian population to stay or leave rebel-held territories. We hypothesise that the effects of such perceptions continue into the post-war period.

5. Hypotheses

The end of open hostilities will ease access to existing public services and make it easier to establish new ones.

1. We therefore expect the signing of a peace agreement to have a positive impact on health services, both on the demand for these services and their perceived quality. The positive impact is expected to be greatest in areas most severely affected by the armed conflict, and in areas where significant resources have been earmarked to the reconstruction of healthcare.
2. However, we expect the positive effect of the peace agreement to be mediated by wartime rebel governance. Conflict zones are not *tabula rasa* and even lower levels of rebel governance, or short-lived experiences of high levels of rebel governance, could affect expectations and perceptions of post-war public services. Moreover, we hypothesise that the *format* of FARC's provisions will also have an impact: Post-war expectations of public services will be affected by how wartime governance was organised and who benefitted from it.
3. We also expect the positive effect of the peace agreement to be mediated by**: i.** Difficulty establishing effective state presence locally; **ii.** Lack of trust in the government and/or unrealistic

expectations. Both factors are legacies of uneven state capacity and both interact with the effects of wartime rebel governance.

The focus on local perceptions corresponds with the recent movement toward patient-centred healthcare (Sofaer & Firminger, 2005), and the consequent inclusion of patient perceptions in definitions of quality (see e.g. Mosadeghrad, 2013). Patient perceptions of quality can be very different from those of providers, but they are both inherently meaningful and matter for actual health outcomes (Sofaer & Firminger, 2005).

6. Data and methods

This is a mixed-methods study which combines original quantitative and qualitative data. The effect of the peace agreement on healthcare provisions is analysed with the help of our Conflict, Peace and Health (*Conflicto, Paz y Salud*, CONPAS) survey, which was conducted in 1309 households in Colombia's Meta department in 2018. The sample was selected through a probabilistic design, with stratification at the level of historic conflict incidence in the municipality, and further strata for urban and rural municipalities, to ensure that the sample is representative of the total, urban and rural populations in Meta, as well as of the sub-populations living in municipalities affected by different levels of conflict incidence.[3] Meta was chosen because the department was affected by the armed conflict from an early stage, yet the intensity and persistence of conflict violence have varied considerably across its 29 municipalities. Moreover, the armed actor mostly present in Meta was the FARC, with a very significant presence in some municipalities. In this department, we would therefore expect a significant effect of the peace agreement between the FARC and the Colombian Government.

Meta also has three of the 24 reintegration camps for former FARC combatants and their families: the Territorial Spaces for Training and Reincorporation (*Espacios Territoriales de Capacitación y Reincorporación*, ETCR) (Fig. 1). The ETCRs were specifically targeted for rapid improvement in healthcare provisions. These services were not reserved for former combatants and were also made available to surrounding communities. Unlike other forms of public healthcare provision in Colombia, they were run directly by the Colombian Ministry of Health. The Meta ETCRs are located in three distinct municipalities that experienced high-intensity conflict and sustained rebel presence - La Macarena, Mesetas and Vista Hermosa – which allows us to examine the differential effect of these ETCRs and the targeted improvement of health services. -While access to services should have been improved by the peace agreement, we would also expect a lingering effect of rebel governance in these municipalities.[4]

Survey respondents were asked about their demand for and access to healthcare services (Q422: Did you seek medical care to treat your illness or health problem?), and the perceived quality of these services (Q424: How do you rate the quality of care received?). They were asked both about current healthcare provisions (two years after the signing of the 2016 agreement) and about such provisions in 2014. Although recall is unlikely to be perfect, there is no reason to expect that areas heavily affected by conflict are affected differently by recall problems than areas of lower conflict intensity, which is what could introduce recall bias in our estimation strategy outlined below. Summary statistics for the healthcare demand and quality variables are provided in Table 1, for years 2014 and 2018, along with the results of simple t-tests for differences in means between the two years.

We supplemented this primary quantitative data with secondary data to create proxy measures of FARC's presence during the armed conflict and of the state's presence after the signing of the agreement. Measuring the influence of an armed group is challenging: information about its presence and illegal activities is often limited, and whilst violence can be more easily observed, it can suffer from bias and fail to account for nonviolent coercion by the armed group, or its territorial dominance. Yet a high degree of rebel presence is unlikely to occur without any violent incidents over an extended period. Violence may be used against new contestations, to deter support for other groups or the state, or to extract resources from the population (Kalyvas, 2006). Therefore, we follow recent literature on the Colombian conflict (Acemoglu et al., 2013; Fergusson et al., 2016; Ch et al., 2018) that exploits past violence as a measure of armed group presence. Given the methodological challenges, we use three different indicators to measure the presence of FARC in a municipality: 1) a dummy variable, defined as high FARC presence, which equals 1 if the total number of conflict events between 2011 and 2013 per 1000 inhabitants is above the 75th percentile (all municipalities with ETCRs, historically characterised by high FARC presence, fall within this group); 2) a continuous variable, FARC intensity, defined as the total number of conflict events between 2011 and 2013 per 1000 inhabitants[5]; 3) a municipality-level conflict index developed by the Colombian National Planning Department (NPD) using multiple indicators of past armed conflict incidence: armed actions, homicides, kidnapping, antipersonnel mines, forced displacement, and illicit coca cultivation. Indicators such as high coca cultivation and kidnapping incidence point to a consolidated rebel presence. Since the FARC was the vastly dominant group in Meta during the study period (Pettersson, 2013), we are able to attribute conflict events directly or indirectly to FARC presence. Finally, as a proxy for state presence (and its capacity to deliver effective public services) in each municipality, we use NPD data on total public spending per capita in the municipality (in millions of 2017 Colombian pesos - COP).

Our quantitative analyses of the data described above seek primarily to test Hypothesis 1, i.e. the overall effects of the peace agreement on healthcare demand and quality perceptions, as well as specifically in highly conflict-affected municipalities and ETCR municipalities. The mechanisms underlying the quantitative findings (Hypotheses 2 and 3) are examined through data from focus groups and interviews. The qualitative analysis allows us to examine the impact of factors such as trust and expectations, including those generated by wartime rebel governance, which are hard to capture through quantitative methods. Our research team conducted 12 focus groups with trainees and teachers from the Health for Peace programme, run by the International Organization for Migration (IOM). Each focus group had 7-8 participants. These focus groups were conducted in three different departments in Colombia (Meta, Cauca and Sucre) where the trainees from the IOM programme were preparing to become public health technicians. Six of the IOM trainees were also interviewed individually to allow for more sensitive issues to be covered. The trainees are all from rural remote areas in different regions of Colombia and have experienced both the challenges of accessing healthcare during the armed conflict and the changes after the agreement was signed. Some of the trainees are victims of the armed conflict, while others are ex-FARC combatants. Our research team also conducted focus groups and interviews with 15 nurses. These nurses, who were interviewed in Bogotá where they were attending training, all work in areas where the FARC reintegration camps (ETCRs) are located. Through these interviews, we obtained crucial information about the effects of the peace agreement, as perceived by healthcare workers, as well as more detailed information

[3] The online Appendix includes further details on the survey methodology.

[4] In the ETCR municipalities, the CONPAS survey enumerators did not visit households living *in* the ETCRs, only households living in the wider community. Government healthcare investments targeting ETCR municipalities were meant to benefit the wider community, not just ETCR residents. The CONPAS sample may include some ex-combatants (for example, those who decided to live outside the ETCRs, or who demobilised years before the peace agreement), but did not ask whether the respondent used to be a combatant.

[5] Variables 1–2 were constructed based on conflict event data from the National Center for Historical Memory.

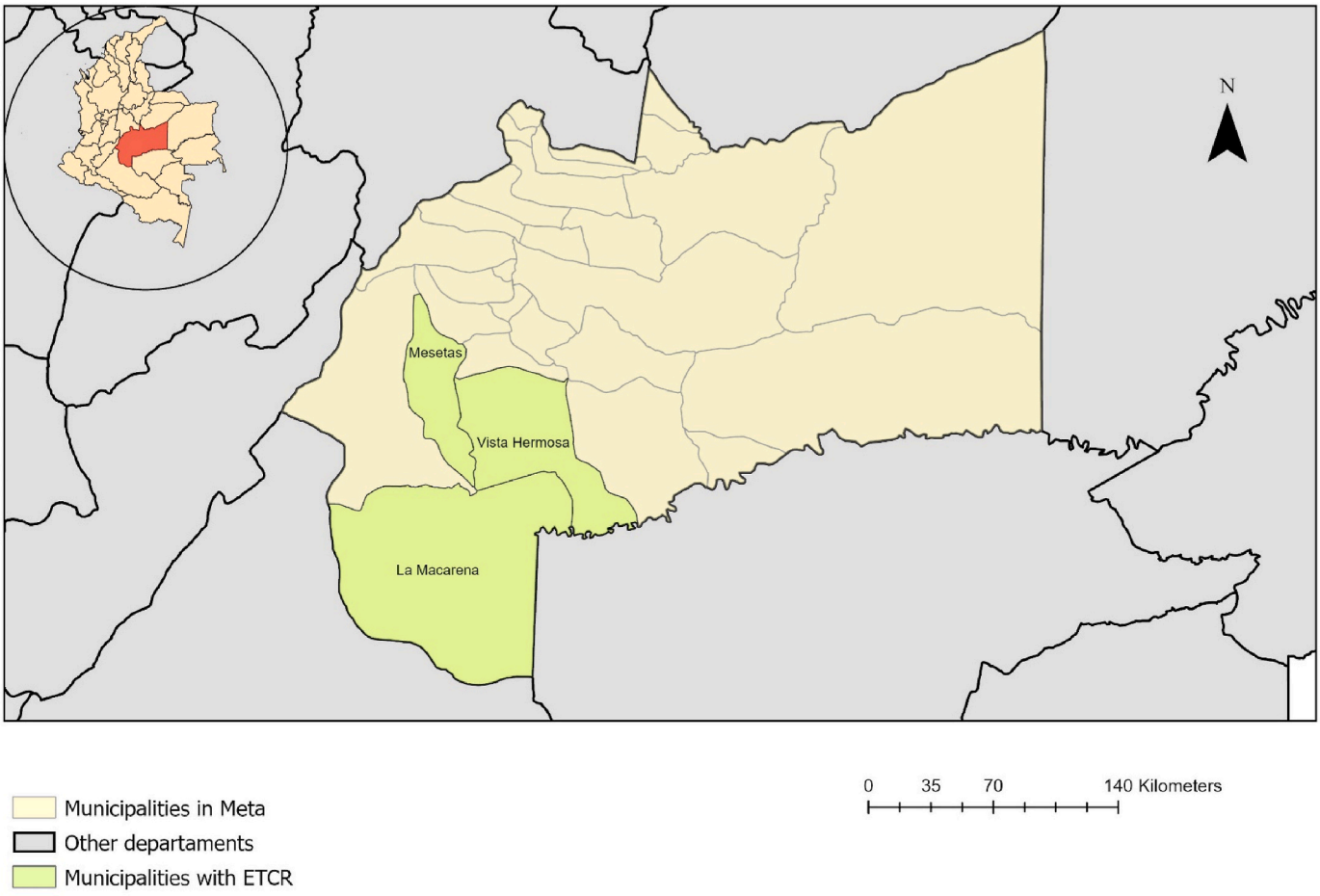

Fig. 1. ETCRs in the Meta department.

Table 1
Summary statistics.

	Year = 2014			Year = 2018			Difference-in-means		
	Obs.	Sample mean	s.d.	Obs.	Sample mean	s.d.	Diff-in-means	s. e.	p-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Healthcare demand	581	0.73	0.02	784	0.75	0.01	0.02	0.02	0.36
Healthcare quality (good)	423	0.75	0.02	588	0.71	0.01	−0.04	0.02	0.07
Economic municipality importance	1309	6.39	0.23	1309	8.10	0.28	1.71	0.37	0.00
Reasons for not seeking care									
No serious need	158	0.60	0.04	196	0.51	0.04	−0.10	0.05	0.07
Time	158	0.10	0.02	196	0.15	0.03	0.05	0.04	0.13
Distance	158	0.22	0.03	196	0.26	0.03	0.03	0.05	0.46
Transportation costs	158	0.20	0.03	196	0.21	0.03	0.02	0.04	0.68
Health costs	158	0.11	0.03	196	0.13	0.02	0.02	0.04	0.59
Lengthy medical procedure	158	0.41	0.04	196	0.41	0.04	0.01	0.05	0.88
Conflict schedule with consultation hours	158	0.18	0.03	196	0.19	0.03	0.01	0.04	0.90
Poor quality services	158	0.46	0.04	196	0.55	0.04	0.08	0.05	0.12
Waiting time	158	0.54	0.04	196	0.57	0.04	0.03	0.05	0.61
No insurance	158	0.04	0.01	196	0.05	0.01	0.01	0.02	0.71
Mistrust in doctors/services	158	0.18	0.03	196	0.17	0.03	−0.01	0.04	0.83

about the effects in and around the ETCRs. Finally, we conducted five focus groups with victims of the armed conflict, facilitated by victims' organizations, focusing on their experiences of accessing healthcare before and after the peace agreement. These focus groups were held in two municipalities in the Meta department that were strongly affected by the conflict (Villavicencio and Vista Hermosa).

Our focus groups and interviews consist of people with extensive experience from the conflict zones. They come from both sides of the conflict, which reduces the risk of bias. The participants are not all from Meta where the quantitative data was collected, but all are from conflict areas where FARC was the dominant armed actor. The geographical spread makes us more confident that the underlying dynamics we identify are not specific to one area only. Some of these areas will have had less sustained rebel presence than Meta, which was one of FARC's strongholds. Therefore, the risk of overestimating the effect of rebel governance should be limited. Finally, the degree of rebel governance also varied within Meta and over time but, as we will show, even lower degrees of rebel governance appear to have had an impact on post-war

expectations and perceptions.

7. Quantitative analysis: Healthcare provisions before and after the accord

To analyse the effects of the peace agreement on health services in the areas most affected by the conflict, we use a triple-difference estimation strategy, exploiting variation across the Meta department in rebel presence before the agreement, while accounting for the potential change in state presence after the agreement was signed.

7.1. Estimation strategy

To estimate the differential effect of the peace agreement on health services in the areas most affected by the conflict, a simple estimation approach would be to use a difference-in-differences strategy, comparing healthcare demand and the perceived quality of services received between municipalities with high and low FARC presence, before and after the 2016 peace agreement. This identification strategy would rely on the "common trend" assumption, where differences in the outcomes of interest across municipalities with different FARC presence would have remained the same in the absence of the peace agreement. However, the peace agreement and the dismantlement of the FARC might have created a temporary governance vacuum among municipalities with previously high FARC presence if the state had not effectively moved in. This potential absence of the state in some municipalities after the 2016 peace agreement could violate the common trend assumption of the difference-in-differences strategy, and bias the estimation results, if the newly provided public services evolved differently among municipalities. In other words, we could attribute the observed effects on our healthcare outcomes solely to the peace agreement, whereas these effects could be (at least in part) driven by variations in state capacity, including those that may be potentially independent of the peace agreement. We address this problem by accounting explicitly for the change in state presence after the peace agreement. Our triple-difference strategy (or difference-in-difference-in-differences, DDD) compares municipalities with different FARC presence pre-agreement and different state presence post-agreement, before and after the peace agreement.

Our DDD strategy is represented by the following estimation model:

$$\begin{aligned} Y_{imt} = {} & \alpha_i + \beta_1 I(t=2018) x State_{m,t=2018} + \beta_2 I(t=2018) x FARC_{m,t=2014} \\ & + \beta_3 I(t=2018) x FARC_{m,t=2014} x State_{m,t=2018} \\ & + \beta_4 FARC_{m,t=2014} x State_{m,t=2018} + \beta_5 X_{imt} + \alpha_t + \mu_m + \varepsilon_{imt} \end{aligned} \quad (1)$$

where Y_{imt} is the outcome variable, i.e. the probability of healthcare demand (or perceived quality of care), which equals 1 if individual i in municipality m at time t seeks health services[6] (or describes the quality of health services as good) and $Y_{imt} = 0$ otherwise. The indicator for the post-agreement period $I(t = 2018)$ takes the value of 1 for year 2018 and 0 otherwise. The variable $FARC_{m,t=2014}$ indicates the degree of FARC presence in municipality m before the peace agreement, and it is defined in three alternative ways as described previously. The variable $State_{m,t=2018}$ indicates the level of public services provision in 2018 in municipality m, that we proxy with public spending per capita at the municipality level (in the Appendix, we further test the robustness of the results by using public healthcare spending per capita as an alternative measure of state presence).[7] In this DDD setting, this variable controls for differences in how the state stepped up its presence post-peace agreement across municipalities. Municipality-specific factors that do not change over the study period, but that may induce differences in healthcare demand or quality, are controlled for by including municipality μ_m fixed effects, whilst the inclusion of time-fixed effects α_t account for macro-level changes that affect all municipalities at the same time.

We further control for a set of variables X that may affect the outcomes of interest: the relative economic importance of the municipality in the Meta department, obtained from the Colombian Statistics Department, as a proxy for the relative quality of public infrastructure in municipality m; the electricity coverage to capture the degree of public services provision in municipality m; and socio-economic and demographic individual factors that could influence the demand for and perceived quality of healthcare: age, education and income. We also control for the respondents' health insurance scheme to which they were affiliated (contributory, subsidised or special regime), as different schemes may produce heterogeneous incentives for demanding healthcare.

For the DDD estimation, the identification assumption is that there was no external factor, other than the peace agreement, that differentially affected the outcome variables across municipalities with different FARC presence and state presence between 2014 and 2018. We argue that controlling for the set of key time-varying observable factors X, as well as municipality and time-fixed effects, should ensure that we capture any potential trends between and within municipalities that would violate the identification assumption. Furthermore, focusing our analysis on relatively short two-year gap periods before and after the 2016 peace agreement should ensure that no major changes, other than the peace agreement, differentially affected the structural characteristics of specific Meta municipalities during the study period (such as demographic composition, fertility rates, epidemiological profiles, or political preferences). The inclusion of municipality time and fixed effects in the regressions should capture any confounding effect of such structural factors that can be considered to have remained unchanged during our study period. By using conflict events in the 2011–2013 period, we seek to find an adequate balance between measuring conflict events over a sufficiently large period to allow us to capture sustained FARC's presence, while reducing the time difference between a conflict event and the 2016 peace agreement (the focal point of our analysis). In doing so, we might fail to capture the true extent of long-term FARC presence in a municipality, especially if it entailed non-violent dominance in the recent past. In this case, our empirical approach should provide lower-bound estimates of the peace agreement effects on our healthcare outcomes, since we would likely be underestimating the "true" presence of FARC.

Under the DDD identification assumption, our coefficient of interest β_3 captures the differential change in the outcome variable in municipalities with high FARC presence before the peace agreement (relative to municipalities with low FARC presence) and with high state presence after the peace agreement (relative to those with low state presence). As per our Hypothesis 1, we expect our estimate of β_3 to be positive, indicating a beneficial impact of the peace agreement on health service demand and quality in the areas most severely affected by the conflict and where the state moved in to re-establish public service provision. This coefficient can be estimated by Ordinary Least Squares (OLS) using the linear probability model (LPM).

Finally, standard errors are clustered at the municipality level in all the estimations conducted in this study.

7.2. Results

Tables 2 and 3 present respectively the results of the triple-difference estimations for healthcare demand and (perceived) healthcare quality, using linear probability models. Each table presents the estimated peace agreement effects using the three alternative proxies for FARC presence

[6] The healthcare demand variable encompasses all types of healthcare providers that are available to the patient (private and public), including armed group services.

[7] Public spending per capita is our preferred measure of State presence because our goal is to proxy for *general* state capacity and provision of public services, not restricted to the health sector.

Table 2
Triple-differences: healthcare demand.

	Dependent variable: healthcare seeking					
	(1)	(2)	(3)	(4)	(5)	(6)
Conflict dummy x 2018 x State	0.0521	0.1839**				
	(0.0908)	(0.0718)				
Conflict intensity x 2018 x State			0.0128	0.0404		
			(0.0427)	(0.0328)		
Conflict index x 2018 x State					0.7332	1.3525
					(1.0175)	(1.4546)
Observations	1365	864	1365	864	1365	864
R-squared	0.015	0.0596	0.0141	0.0518	0.0168	0.0525
Controls	No	Yes	No	Yes	No	Yes

LPM estimations of equation (2) with robust standard errors in parentheses. As defined in the data Section, FARC presence is proxied by the following variables: 1) a conflict dummy variable; 2) a continuous variable to capture conflict intensity; 3) a municipality conflict index. State presence is proxied by total public spending per capita in millions of 2017 Colombian pesos (COP).
***p < 0.01, **p < 0.05, *p < 0.1.

Table 3
Triple-differences: healthcare quality.

	Dependent variable: healthcare quality					
	(1)	(2)	(3)	(4)	(5)	(6)
Conflict dummy x 2018 x State	−0.0785	−0.1348				
	(0.0858)	(0.1132)				
Conflict intensity x 2018 x State			0.3136	−0.4431		
			(1.6890)	(3.5210)		
Conflict index x 2018 x State					−1.9685	−2.5021
					(1.4064)	(2.5121)
Observations	1011	1011	1011	1011	1011	1011
R-squared	0.020	0.0301	0.0152	0.0163	0.0196	0.0213
Controls	No	Yes	No	Yes	No	Yes

LPM estimations of equation (2) with robust standard errors in parentheses.
***p < 0.01, **p < 0.05, *p < 0.1.

in 2014.

In general, the estimated effects of the peace agreement on healthcare demand and healthcare quality are statistically insignificant (columns 2, 4 and 6). However, we find that healthcare demand increased significantly by 18 percentage points when we capture FARC presence by a dummy variable indicating a total number of municipal conflict events above the 75th percentile of the distribution of these events (Table 2, column 2). This finding is robust to using public healthcare spending per capita as an alternative measure of state presence, instead of total public spending (online Appendix, Table A3). That is, healthcare demand significantly increased post-accord in municipalities of the upper tail of the distribution of conflict events. This result suggests that it was specifically in municipalities with high levels of rebel presence that healthcare demand increased after the peace agreement. On the other hand, our estimations suggest that the peace agreement did not improve the perceived quality of healthcare, even in the municipalities most affected by the conflict. In fact, if anything, the statistically significant coefficients in the online Appendix Table A4 (columns 2 and 6) suggest that perceived quality of care may have *fallen* after the peace agreement in municipalities with high FARC presence, when we proxy state presence using public healthcare spending per capita.

We then examine in more detail the role of state presence for the above impacts of the peace agreement on healthcare demand and perceived quality, specifically for municipalities with high FARC presence. The triple-differences estimation is no longer an option since the focus is on municipalities highly exposed to FARC activities. In other words, the dummy variable $FARC_{m,t=2014}$ (equation (1)) is always equal to 1, and the coefficient of interest β_3 becomes thus effectively a difference-in-difference estimator that measures the effect, on the outcome variable, of living in areas with high state presence relative to living in areas with low state presence, after the demobilisation of the FARC.

Tables 4 and 5 report the LPM estimates of the difference-in-differences approach described above. Columns 1–2 use the FARC dummy approach for restricting municipalities to those with high FARC presence only, whilst columns 3–4 rely on the municipality conflict index. The results suggest that different state presence post-agreement did not influence the effects of the peace agreement on healthcare demand or quality across municipalities highly affected by the conflict.

Lastly, we examine heterogeneity in the effects of the peace agreement specifically for municipalities hosting the governmental reintegration programme of FARC ex-combatants (ETCR). Tables 6 and 7 present the estimated changes in healthcare demand and perceived quality of healthcare in municipalities with ETCR (relative to non-ETCR municipalities) and with high state presence (relative to low state presence). We estimate these changes by replacing the FARC presence variable in equation (1) with a dummy variable indicating the presence of an ETCR in the municipality. According to our Hypothesis 1, we expect the estimate of β_3 to be positive, indicating a greater beneficial effect of the peace agreement in the ETCR areas, which used to be FARC strongholds and where significant resources were earmarked to improve public healthcare provision post-peace agreement.

Contrary to our expectations, the estimates in Tables 6 and 7 indicate that, in municipalities with an ETCR, the peace agreement had large, negative, and statistically significant effects on both healthcare demand and healthcare quality. In particular, both healthcare demand (i.e.

Table 4
Difference-in-differences: healthcare demand within FARC areas.

	(1)	(2)	(3)	(4)
	FARC dummy	FARC dummy	High conflict (NDP)	High conflict (NDP)
2018 x State presence	−0.0230	0.0860	−0.0350	0.0547
	(0.0901)	(0.0658)	(0.1031)	(0.0659)
Observations	712	448	466	304
R-squared	0.0082	0.0768	0.0184	0.1108
Controls	No	Yes	No	Yes

LPM estimations of equation (1) with robust standard errors in parentheses.
***p < 0.01, **p < 0.05, *p < 0.1.

Table 5
Difference-in-differences: healthcare quality within FARC areas.

	(1)	(2)	(3)	(4)
	FARC dummy	FARC dummy	High conflict (NDP)	High conflict (NDP)
2018 x State presence	−0.0480	−0.0514	−0.0731	−0.1020
	(0.0839)	(0.1237)	(0.0951)	(0.0935)
Observations	469	293	301	193
R-squared	0.0054	0.0700	0.0239	0.1975
Controls	No	Yes	No	Yes

LPM estimations of equation (1) with robust standard errors in parentheses.
***p < 0.01, **p < 0.05, *p < 0.1.

Table 6
Triple-differences: healthcare demand and ETCR.

	(1)	(2)
2018 x State presence x ETCR	−0.244***	−0.2829***
	(0.0308)	(0.0594)
Observations	1365	864
R-squared	0.018	0.0549
Controls	No	Yes

LPM estimations of equation (2) with robust standard errors in parentheses. ETCR dummy variable is equal to one if municipality is La Macarena, Mesetas and Vista Hermosa.
***p < 0.01, **p < 0.05, *p < 0.1.

probability of seeking care) and the perceived quality of healthcare (i.e. probability of rating care received as good) decreased by approximately 25 percentage points.

In sum, the quantitative analysis suggests that the peace agreement had a positive impact on the demand for healthcare specifically in the areas most severely affected by the armed conflict, which partly confirms Hypothesis 1. The absence of a statistically significant healthcare demand effect when FARC presence was proxied by a continuous conflict intensity variable reinforces the interpretation that the increase in healthcare demand post-peace agreement was concentrated among the most highly conflict-affected communities, instead of representing a more generalised impact across municipalities with different degrees of conflict violence. However, contrary to our expectations, this increase in people seeking care was not accompanied by an increase in the perceived quality of healthcare provisions. Even more significantly, in the three municipalities hosting ETCRs, which historically had the strongest presence of the FARC, we saw important reductions in both healthcare demand and perceived quality of care, thus contradicting the expectations of Hypothesis 1 that the greatest positive impacts should be observed in the municipalities that were specifically prioritised by the government for improved healthcare after the peace agreement.

Table 7
Triple-differences: healthcare quality and ETCR.

	(1)	(2)
2018 x State presence x ETCR	−0.244***	−0.2646***
	(0.0213)	(0.0713)
Observations	1011	1011
R-squared	0.038	0.0400
Controls	No	Yes

LPM estimations of equation (2) with robust standard errors in parentheses.
***p < 0.01, **p < 0.05, *p < 0.1.

8. Qualitative analysis: Challenges of (re)-establishing health services

Our extensive qualitative material allows us to examine the mechanisms underlying the quantitative findings. We first examine perceptions expressed in focus groups and interviews regarding the overall effect of the peace agreement on health services in conflict-affected areas, including in municipalities hosting an ETCR. We then analyse the effect of three underlying mechanisms, drawn from the theoretical discussion, which we hypothesise could mediate the effects of the peace agreement on healthcare demand and perceived quality (Hypotheses 2 and 3): i) comparisons with wartime healthcare provided, or controlled, by the FARC; ii) difficulties re-establishing the state's presence locally; iii) expectations and (mis)trust.

8.1. Impact of the peace agreement

Our interviews and focus groups help explain the quantitative findings of an increase in demand for healthcare, specifically in the areas most severely affected by the armed conflict, without a corresponding increase in perceived care quality. Several respondents pointed to improved access to healthcare as a result of the peace agreement and the reduction in violence. It has become easier for health workers to enter villages and provide care, whereas before they were only brought in to treat the already gravely ill or wounded (Nurse Int. 10).[8]

> "previously they couldn't access that community, that village, because of fear. And now they can do it". (Trainees FG 8, Meta)

Likewise, it has become easier for people in remote areas to leave their villages and seek healthcare.

> "when the armed groups were there, if you were going to leave the village, first you had to talk to the person in charge to see if they would authorize you to leave." (Trainees FG 3, Sucre)

> "[before the agreement] you are sick at night, you want to go to the health post and you cannot, because you cannot go out, there are checkpoints, so you cannot pass. That affects health a lot because you cannot be free to go and receive the care you need." (Nurse Int. 6)

Several nurses reported that before the agreement, their patients were targeted by armed actors but that this was no longer the case:

> "it happened on several occasions that … the armed groups would stop the ambulance and finish off the person right there in front of the doctors, the auxiliaries … But, well, that has already diminished." (Nurses FG 2)

However, perceptions differ when it comes to the quality of the care.

[8] FG indicates focus group, while Int. indicates interview. Locations are included for focus groups with IOM teachers and trainees (Meta, Cauca or Sucre). The focus groups and interviews with ETCR nurses were conducted in Bogotá. The focus groups with victims were all conducted in Meta.

Some respondents emphasised improvements, especially in the area of prevention and health education:

> "there's been more health prevention … more education and people take their precautions" (Trainees FG 8, Meta)

But many saw no improvement, possibly due to an increase in demand.

> "I would say that the situation has remained the same, with a tendency to worsen." (Victims FG 1, Meta)

> "If I'm honest, nothing changed … actually, I think it got worse. They have the load of more people and there is no way to supply their needs … that has been total chaos." (Nurse Int. 8)

There was broad agreement that some areas have benefitted more than others, in particular the areas around the reintegration camps for former FARC combatants, the ETCRs. The provision of health services in the ETCRs was, as noted above, a priority in the implementation of the peace agreement. This may have led to disappointed expectations elsewhere and affected perceptions of the quality of the healthcare available locally.

> "I think that it remains the same for the general population … the change was more for ex-combatants than for the general population." (Nurse Int. 4)

> "the communities that are nearby [the ETCRs] benefit, but … others are put aside (Trainees FG 2, Meta)

One respondent compared the health services in his community to that of his friend's:

> "I can't say that I will receive the same benefits that my friend's community receives … My community is further away, he is closer to the ETCR" (Trainees FG 4, Sucre)

There was a perception that, in other areas, the demand for health services had increased but the provision of services had not kept apace and might even have deteriorated. However, despite the prioritisation of healthcare in areas with an ETCR, the quantitative analysis pointed to a negative impact on both healthcare demand and perceived quality. Below we further explore the mechanisms underlying these findings.

8.1.1. Comparison with healthcare provided by the FARC

One of the key causes of the perceived deterioration in healthcare quality, especially in municipalities with ETCRs, appears to be a comparison with the wartime healthcare provided by, or controlled by, the FARC.

There is some disagreement among the respondents when it comes to the quality of these wartime services and the regularity with which they were offered to the civilian population. This may be because the respondents come from different parts of the country, with differing levels of rebel governance, and because of their different degrees of direct experience with these provisions. However, it seems that in parts of Colombia, the FARC operated well-organized and well-stocked healthcare facilities, including hospitals (some mobile) and operating rooms, and provided medicines not available in public hospitals. This has resulted in high expectations regarding post-agreement healthcare provisions, especially among former combatants.

> "you would arrive at the hospital out there in the jungle. It was very nice, built of wood, but very well organized … some beds were with boards and mattresses, and all their sheets of the same color. They would use blue just like in a hospital." (Trainee Int. 2, Meta)

> "They have dental units, they have supplies, they keep them air-conditioned like any laboratory, they have their equipment, they have sterilizers and everything" (Nurse Int. 5)

> "[the medicines] were much better than the ones given by the health system." (Nurse Int. 14)

> "We had [medicine] … for leishmaniasis, which was glucantime, which isn't sold in Colombia." (Trainees FG 2, Meta)

The last respondent describes how this and other advanced medicines, such as 3rd generation malaria drugs, were bought abroad. Now these are no longer available and "all the guys complain about the health system" (Ibid.)

Perhaps more important than the facilities and the effectiveness of FARC's healthcare, which is anyway contested, was the way it was delivered: immediate and bureaucracy-free.

> "The war nurses or war doctors and the Farian [from the FARC] community itself, told us that if something was wrong with them they would attend to them at once. They had dentists, they had doctors, they had psychiatrists. So, they had quicker attention because they did not have to deal so much with procedures" (Nurse Int. 10)

An IOM trainee, who is a former FARC medic, described the care as very personal:

> "if I sutured that patient, it was left until the stitches were removed. They said, that's his patient. In other words, they would not change my patients because tomorrow's shift belongs to so-and-so, no. That is your patient until you remove the stitches, and if it looks ugly, it is your responsibility." (Trainee Int. 2, Meta).

These wartime experiences created expectations for post-war provisions. The slower and more cumbersome process for accessing post-war government healthcare was mentioned as a cause of dissatisfaction by a number of respondents.

> "… everything was immediate for them and they had the resources there … Now they have to do like a whole process that involves time, paperwork … Many things to be able to access what, to barely access what they had before … They say, before we had everything." (Nurse int. 15)

> "… they were used to immediacy, they had everything at hand, they needed something and they went and brought the nurse, the doctor, so that they would take care of things and this abrupt change, of entering our health system, for them it was a shock … they no longer get things that fast, nor do they get the specialties they need." (Nurse Int. 8)

> "They said … we had immediate health care. They do not know that that means a triage, they do not know that you have to perform authorizations … if there was pain, the attention was immediate." (Nurse Int. 9)

The expectation of immediate access to healthcare is even stronger among former combatants, which helps explain the quantitative findings of perceptions of lower quality healthcare in the ETCRs.

> "… with the ex-combatant population … you have to do an intense job because they come from a different style … from where if a tooth hurt, then, immediately, [they would be given] the best medicines. Right away, the doctor and dentist would see them and the problem would be solved." "They perceive the system badly, they perceive that the system is not efficient, that there is a lot of waiting, a lot of paperwork." (Nurses FG 1).[9]

8.1.2. Difficulties re-establishing state presence

The continued unevenness of state capacity was raised as an

[9] Similar results, from interviews with former FARC combatants, are reported by Reynolds et al. (2021).

important factor in our focus groups and interviews. This has impacted negatively on healthcare provisions and made it difficult to meet expectations of a peace dividend. In some areas, the departure of the FARC caused a governance vacuum that has yet to be filled by effective state presence. Instead, the security situation has deteriorated as different armed groups are vying for control (International Crisis Group, 2017).

Local power vacuums were mentioned by several respondents, for example:

> "something negative about the peace agreement, is that it's almost like authority has been lost … everyone does what they like." (Trainees FG 2, Meta)

> "Now … there is no FARC … and no state presence." (Nurse Int. 14)

> "The state has never really arrived, the state remained [over] there with the idea of "yes we live in peace, very happy, very joyful", but really, they abandoned the issue of health." (Victims FG 4, Meta).

Respondents pointed out that although some dimensions of state capacity have improved, for example electricity arrived and some roads were fixed, these provisions were not always sustainable. For example, some of the road improvements were soon destroyed by the rainy weather (Trainees FG 4, Sucre). Moreover, respondents argued that attempts to establish effective healthcare provisions in conflict-affected areas have been hampered by corruption and/or ineffective funding systems:

> "there are so many tiers for health funds. So, you know that the money starts getting lost on the way, little by little … what arrives is, not even half of what they give." (Trainees FG 4, Sucre)

Although the peace agreement has resulted in an overall reduction in violence, state capacity remains uneven, the security situation has deteriorated in some areas, and some of the promised rural forms are yet to be implemented.

8.1.3. High expectations and mistrust

The failure of the state to meet the high expectations created by the peace agreement and its promises of rural reform was mentioned by a number of respondents.

> "some things have improved … But there are many others that have not … we all have high expectations of the peace process, and it is falling short, it is falling short in the execution." (Teacher Int. 2, Meta)

> "many communities thought that through the peace project … there was to be more development for vulnerable populations … [But] in many parts there is not even a school, there is no health post …" (Trainees FG 4, Sucre)

A combination of high expectations and the state's failure to meet them added to existing mistrust of public healthcare provision, in particular towards hospitals. The longer the waiting times and the poorer the care given, the greater the mistrust towards the healthcare providers. The greater the mistrust, the greater the likelihood that the local population will not make use of the opportunities they have to receive care.

> "people almost don't go to the hospital, for example. They could be very sick, but they wouldn't go." (Trainees FG 7, Cauca)

> "my mother also calls them the health-killers (*matasanos*) … She says that she could be very ill and would not go, because she believes that, if she goes, she will come out dead." (Trainees FG 3, Sucre)

> "They go when they are terribly sick and when they feel that they are going to die … Otherwise, if it is a pain, like a headache, Dolex, or acetaminophen or home remedies [will do]." (Trainees FG 2, Meta)

Delays in accessing healthcare appear to be a key cause of mistrust in the healthcare system (see also Gonzalez-Uribe et al., 2022), and this shapes perceptions of care quality. As mentioned above, many were used to more immediate healthcare in the conflict zones.

> "they don't believe in health services … In fact, they are demoralized that things are so delayed, because, if this is a right, why is there so much delay?" (Nurse Int. 15)

Some people, especially former combatants, are fearful and distrustful of any public services. Their loyalties may still lie with their community leaders who are also ex-FARC. Former FARC combatants also report that they have faced discrimination when accessing healthcare (Reynolds et al., 2021).

> "They do not want ID numbers; they do not want to be followed up on anything because they think that if they have children, they will take them away." (Nurse Int. 12)

This again points to the challenges of building post-war state capacity and the lasting effect of wartime rebel governance that provided rudimentary but immediate care.

9. Conclusion

This article analysed the effects of the Colombian peace agreement on health services in areas of high conflict intensity and sustained rebel presence. The effective provision of public services is important to the legitimacy and, therefore, the sustainability of the negotiated peace, and the development of former conflict zones was a central objective of the agreement between the Colombian government and the FARC. However, through a mixed methods approach, we demonstrated the considerable, and often underestimated, challenges of (re)establishing effective state governance, even when this is a clear priority, resources are devoted to it, and the destruction wrought by the war is less severe than what we see in many other conflicts. As an important contribution to the existing literature, we showed how wartime experiences of effective rebel governance add to this challenge.

In areas heavily affected by conflict violence and rebel presence, our original survey data showed that the peace agreement increased the demand for health services, but without a corresponding improvement in perceived care quality. In fact, in the municipalities that hosted reintegration camps (ETCRs), which were some of the areas most heavily affected by violence and rebel presence, we saw a decline in the demand for health services and an interrelated deterioration in the perceived quality of care. This is despite the ETCRs being specifically targeted for improved health services. These municipalities received the majority of the reintegrated ex-combatants, and our findings could reflect precarious local services put under strain by higher numbers of residents (with possibly more severe physical and mental illnesses) in need of healthcare. However, perceptions of quality are not only affected by access barriers. Data from our focus groups and interviews pointed to the impact of three underlying dynamics: 1) a favourable view of healthcare provided by the FARC during the conflict, 2) difficulties establishing effective state presence locally, 3) high expectations and mistrust of government provisions. Conflict areas cannot automatically be assumed to be ripe for 'better' governance (Justino, 2019): alternative forms of governance are likely to have existed during the war and post-war governance will not necessarily be perceived as an improvement. Combined with the continued unevenness of state capacity, the legacies of relative state absence, and high expectations of a 'peace dividend' (see e.g. Cox, 2016), this led to mistrust, low demand for public services, and a perception of poor quality.

By demonstrating the importance of rebel governance for post-war recovery, this article has made a significant and original contribution to the emerging literature on rebel governance. FARC's wartime governance had, by all accounts, declined by the time the peace agreement was signed. Yet it still mattered for its implementation. This suggests that these findings are generalizable to a larger universe of cases.

Moreover, our findings showed that both the level *and* format of rebel governance matter. The immediate, bureaucracy-free access to FARC's healthcare provisions created expectations that were hard to meet. We also pointed to additional obstacles to establishing effective public services in former conflict zones. We provided evidence for the importance of expectations and trust for state capacity, thereby adding to the existing analyses of the relational nature of state capacity and the mechanisms explaining lasting unevenness. These findings all contribute to the literature on post-war peacebuilding. They also have policy implications: local expectations are vital for successful peacebuilding, sufficient resources must be devoted to the delivery of post-war public provisions, and the involvement of former rebels in the design and/or delivery of these services could prove beneficial.

CRediT authorship contribution statement

Nina Caspersen: Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing, Supervision. **Urban Jakša:** Formal analysis, Writing – original draft. **Samuel Lordemus:** Formal analysis, Methodology, Writing – original draft, Writing – review & editing. **Rodrigo Moreno-Serra:** Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Supervision, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The dataset and replication code are available in the Online Appendix.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.polgeo.2024.103090.

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