

# Community-based Approaches to Reinforce the National Response to Reducing HIV and TB Incidence and Mortality in Mozambique



Photo credit: Ricardo Franco for Pathfinder International, 2020.  
Maria Simao Wate reads information she was given during a home visit.

## Abstract

Mozambique's HIV-prevalence rate is among the highest in the world at 12.1%<sup>1</sup>, with up to 25% of adults infected in some provinces.<sup>2</sup> The World Health Organization (WHO) estimates the risk of developing tuberculosis (TB) to be up to 27 times greater in people living with HIV than among those without HIV, and TB is the leading cause of death among people living with HIV; yet TB often goes undiagnosed and untreated in people living with HIV, contributing to preventable deaths.<sup>3</sup> From 2018 to 2020, Pathfinder International implemented the community-based Reinforcement of Adherence & Retention of Patients in Antiretroviral Therapy (ART) & Screening for TB (RARE) project in Mozambique. Funded by the Global Fund to Fight AIDS, Tuberculosis, and Malaria through the Center for Collaboration in Health, RARE-HIV-TB worked in Gaza, Manica, and Sofala provinces to reduce both HIV and TB incidence and mortality. This brief documents the project's community-level interventions with community health workers (CHWs) to improve ART adherence, retention, and care. The brief shares lessons and recommendations for replication, adaptation, and expansion of these approaches.

## Background

With one of the lowest life expectancies in the world—60 years—Mozambique ranks 181 out of 185 on the Human Development Index.<sup>4</sup> Though HIV is one of Mozambique's most serious health threats, only 60% of those eligible are receiving ART.<sup>5</sup> Significant financial and programmatic investments have been made to prevent transmission and provide treatment to people living with HIV; however, additional efforts are needed. Adherence to ART is low, with 33% of patients discontinuing ART by the 12th month, often for economic reasons.<sup>6</sup> Like HIV, TB is a leading cause of death in Mozambique. In 2018, 162,000 people in Mozambique were estimated to have TB, but only 93,546 (58%) were reported. While people coinfected with HIV accounted for 36% of people with TB in Mozambique that year, they accounted for 50% of the country's 43,000 TB-related deaths. Improving HIV and TB case detection and treatment adherence and retention, as well as integrating HIV and TB services, are clear public health needs.<sup>7</sup>



Photo credit: Ricardo Franco for Pathfinder International, 2020.  
Selma Judite Heider Monteiro (left) and Teresa Belezarda,  
District Supervisor (right).



# THE RARE PROJECT

RARE aimed to contribute to the reduction of HIV and TB incidence and mortality in the three provinces where it was implemented: Gaza, Manica, and Sofala. Twelve months after ART initiation, nearly a quarter of patients in Gaza and one-third of patients in Manica and Sofala were lost to follow up (Table 1).

RARE found that by far the most common reason patients reported for stopping ART was that they forgot the date (46%), followed by lack of transport to health facilities (13%), illness (8%), and other highly rated reasons (15%). Additional reasons for loss to follow-up reported in the project provinces included work or travel obligations and side effects of treatment. This brief documents RARE's innovative community-level approach to addressing these and other barriers to improve ART adherence and retention.

**Table 1. 2018 Levels of HIV Prevalence and ART Adherence in Manica, Sofala, and Gaza Provinces**

Province	Manica	Sofala	Gaza
Population	1,911,223	2,221,803	1,446,654
HIV prevalence	13.5%	16.3%	24.4%
Patients in ART	71,548	91,978	83,208
Retention rate at 12 months	66%	65%	76%

Data source: "Relatório Anual 2017: Relatório Anual Das Actividades Relacionadas Ao HIV/SIDA." República De Moçambique Ministério Da Saúde Serviço Nacional De Saude, Abril de 2018.

## IMPLEMENTATION

In order to diminish the threat of TB and move Mozambique toward its goal of eliminating AIDS by 2030, RARE aimed to contribute to the improvement of the rates of ART adherence and retention among People living with HIV and of TB screening through community interventions and referrals to health facilities. In service of this goal, the project worked through a community health network to reach patients in need—those on ART and those lost to follow up—who might not be reached through the traditional health facility mechanisms to trace those who default on their treatment.

### Implementation of Community-based Approaches

RARE focused its ART-retention interventions on patients newly enrolled or admitted to initiate ART within 15 days after testing positive for HIV and patients who had dropped out of ART or been lost to follow-up. The project's community approach to identifying and tracking defaulters and reintegrating them into care and treatment services set it apart from others and contributed to its success. RARE reached patients through an integrated package of services, including community dialogues and male engagement activities, which reinforced HIV information and support for patients while reducing stigma and discrimination.

The community dialogues were co-led by project officers and health care providers, who addressed health concerns associated with ART, including side effects and interaction with other health conditions; paralegal officers, who addressed legal and human rights barriers and concerns common among People living with HIV; and psychologists, who provided psychosocial support when needed. Through the dialogues, these technical experts helped correct common misconceptions, doubts, and taboos; shift community mindset; and contribute to the remobilization of patients to return to treatment. Community members selected dialogue topics (including HIV, TB, family planning, stigma and discrimination, gender-based violence, and other community health issues) from a list provided by the field supervisor, and facilitators relied on a tool created by the project to standardize the discussions. Over the course of the project, 30,285 people (10,722 [65%] men and 19,563 [35%] women) participated in 1,329 community dialogues, with an average of 22 participants per dialogue.

The male engagement activities included three group sessions in the first month, followed by six individual sessions over the following 13 months. The project initially engaged 3,890 men, of which 2,956 (76%) completed all three group sessions. Of them men who completed all three group sessions, 1,324 (45%) engaged in at least one individual follow-up session.

Additionally, RARE used a variety of client-supportive mechanisms to retain and reintegrate patients into treatment. The project embedded CHWs in communities, ensuring that they were close to the patients. The CHWs conducted home-based individual counseling sessions on adherence and risk factors to reinforce adherence to ART. To reintegrate those who discontinued ART or were lost follow-up, the CHWs made telephone calls and home visits to reinforce individual counseling on adherence and to make referrals for patients to return to their health facilities. The CHWs' proximity to the communities helped to ensure that their counseling messages about returning to ART were clear, contextually appropriate, and addressed barriers to treatment at the individual and household levels. The CHWs also helped address community- and facility-level barriers by bringing critical issues to weekly ART committee meeting discussions in the health facilities and to the Co-Management Committee, consisting of community representatives and authorities, including health leaders and police officers.

Finally, RARE delivered positive health, dignity, and prevention packages that included information on key populations, including discordant couples and adolescents living with HIV; assistance navigating health facilities; and legal support to protect people living with HIV from discrimination, physical and psychological violence, threats, and traditional hierarchical barriers that might threaten their agency or ability to continue ART.

## **Quality and Sustainability Measures**

While community dialogues served as entry points to create a more supportive environment for people living with HIV and to encourage engagement with health-facility-based services, it was also critical to lend technical, administrative, and logistical support the health providers to help ensure quality of care. The success of the interventions was largely dependent on the commitment of and quality of service provided by the members of the facility-based health teams, including clinicians, data clerks, pharmacists, and those providing psychosocial support, as well as the CHWs, including case managers, field supervisors, and district managers.

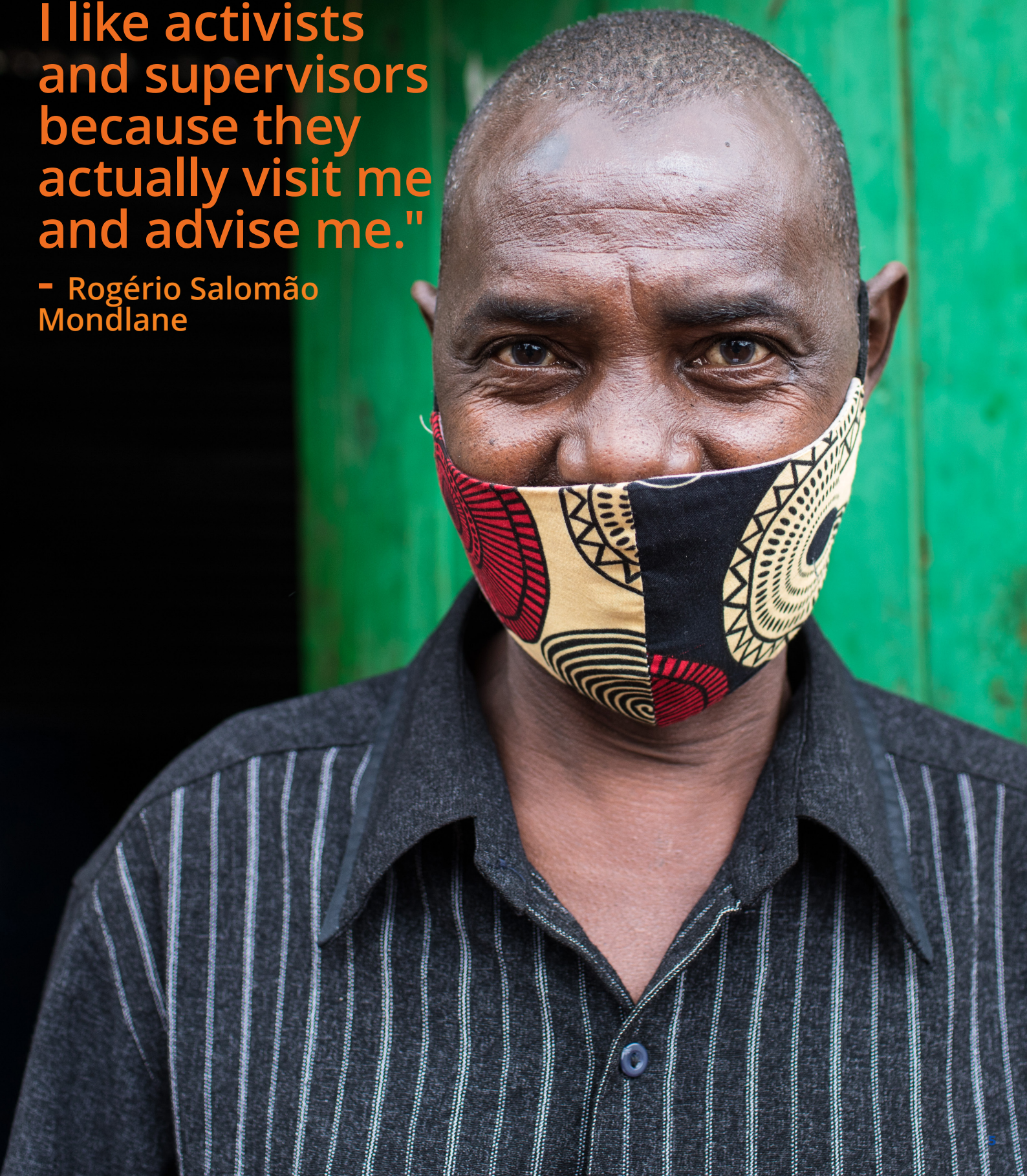
Continuous training, technical updates, human resources support, and motivation of project stakeholders, who faced environmental and infrastructural challenges including geographic barriers and lack of equipment within facilities, was essential. To ensure that the team was equipped to overcome these challenges, RARE selected experienced project staff who could lead by example, drawing on wisdom gained in past projects to systematically implement the interventions and adapt the approaches as needed. For example, RARE strengthened the capacity of facility-level teams by placing a case manager or a data clerk onsite to triangulate data and generate lists of patients who fell into the categories of defaulters or the those lost-to-follow up. Producing thorough lists with clear patient identification data (names, contacts, residence, community, alternative contacts) on a weekly basis facilitated proactive tracing of patients at household level by CHWs. Additionally, some CHWs were assigned a new function as case managers. In this role, they worked within health facilities to strengthen linkages among health facilities in areas of the surrounding communities that had the highest volume of patients on ART.

The project also fostered sustainability and a supportive environment in alignment with national Ministry of Health policies on HIV and AIDS by establishing partnerships with and enhancing the commitment and institutional capacity of community-based organizations (CBOs), particularly in administrative and financial management. Informed by a pre-award assessment and areas for growth identified during project implementation, RARE trained CBO staff on the use of accountability tools, including time sheets and individual contracts, and supported CBOs in updating and implementing organizational policies to reflect and align with national, Pathfinder, and Global Fund standards. The project also provided technical assistance to monitoring, evaluation, and learning (MEL) officers to ensure data quality and strengthened linkages between communities and health facilities by training facility-based health care workers on a rights-based approach. Strengthening the capacity of CBOs in these areas has helped ensure their ability to continue this work beyond the life of the project.



"I feel good,  
I'm properly  
complying with  
the medication.  
I like activists  
and supervisors  
because they  
actually visit me  
and advise me."

- Rogério Salomão  
Mondlane





# PERFORMANCE

## Data Collection

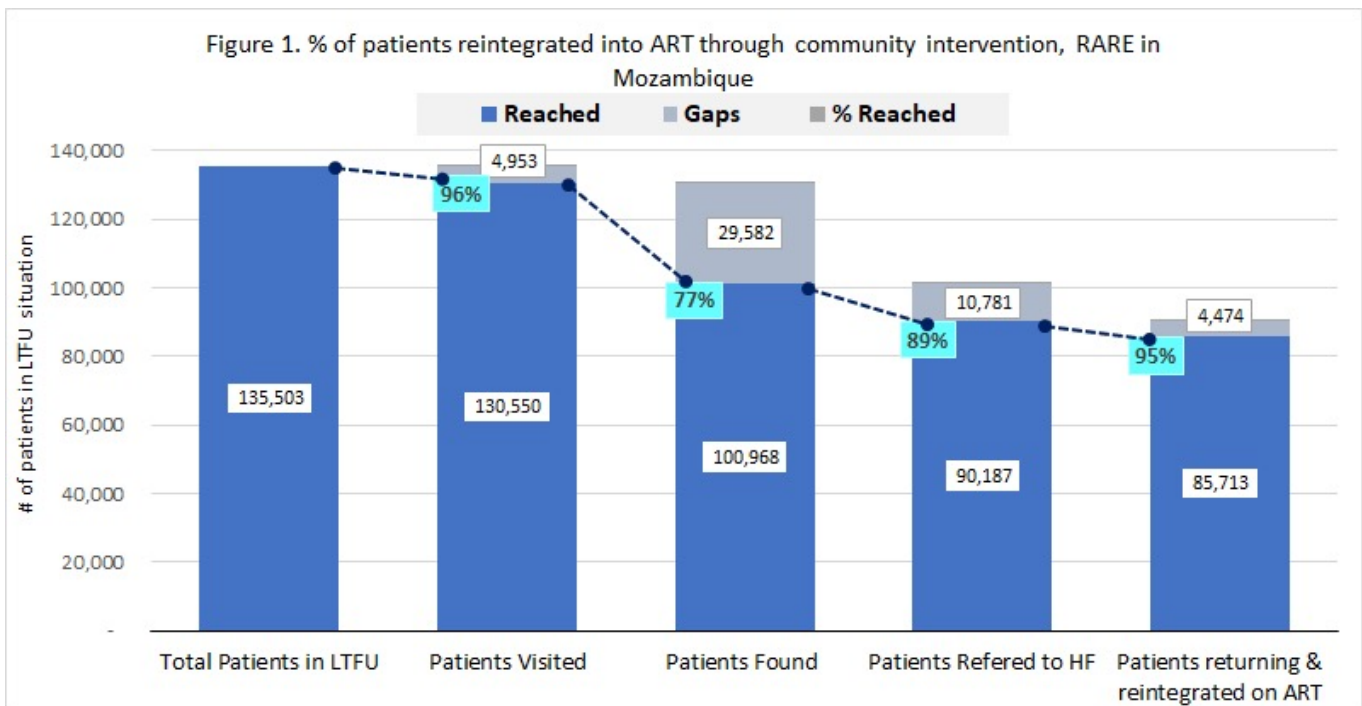
Under the guidance of the MOH, RARE collected data using the physical registers of data clerks and case managers. However, the project also developed and piloted two mobile data-collection applications: one for TB and one for HIV. Both apps were designed on the CommCare platform and piloted with a group of CHWs who used mobile phones for digital data collection in parallel with physical data collection over a one-year period. Following client consent, the app allowed for individual registration and follow-up with patients according to their needs. With its automated calendar, the app facilitated automatic scheduling of preventative visits and improved the quality of patient follow-up by providing the CHWs with the information they needed to conduct their visits in a thorough manner. Use of digital devices yielded timely data, ensuring that managers had the information they needed to interact knowledgeably and respond quickly to client and program needs.

## Results

Through its community-based interventions, RARE succeeded in preventing loss to follow up among new patients and in supporting patients lost to follow up to return to ART and to comply with all clinical recommendations. Of the 21,122 patients in the project area who were newly enrolled in ART over the implementation period (January 2019 through December 2020), 19,639 (93%) were found and reached by a series of seven support visits over 18 months. In addition, of the 18,020 patients identified as needing adherence reinforcement visits, 16,440 (91%) were found and reached with two reinforcement visits over a two-month period.

Of 135,503 patients who had been lost to follow-up at the start of the project—approximately two-thirds of whom were women—RARE was able to find 100,968 and, of these, refer 90,187 to health facilities. By the end of the project, 85,713 (63%) of patients who had been lost to follow-up were reintegrated into ART at the same sex ratio as those lost to follow-up and those found. (Figure 1).

Of the 34,535 patients that RARE was unable to find, the majority (38%) had the wrong address listed. Others had changed residences (18%), were traveling (13%), had died (12%), had resettled after Cyclone Idai (7%), were busy working (6%), or were unreachable for other reasons (6%).



## LESSONS LEARNED AND RECOMMENDATIONS

- **Validate and triangulate data.** Timely collection of data using digital devices enabled managers to access the information they needed to interact with teams knowledgeably and respond quickly. The project worked with health facility staff and clinical partners to validate data at all levels, from community-based organizations up through health facilities. Establishment of a clear internal workflow for the triangulation of loss-to-follow-up data helped to ensure the quality and reliability of project data overall. Training and strengthening the community team, from community-based organization staff to Pathfinder staff, also helped improve data quality and prevent inaccuracy and fraud. The project made random supervision visits for compliance and data-verification checks. This brought to light that some patients who had reportedly passed away were actually alive and had simply dropped treatment. These learnings illustrated the importance of data-quality verification.
- **Strengthen linkages between health facilities and the communities they serve.** The inclusion of the project's community team—CHWs, case managers, field supervisors, and district supervisors—in ART committee meetings helped the project integrate information about barriers to health access identified in the community into the facility-level co-management committees who could then work to address the barriers. And the placement of a case manager onsite in health facilities to triangulate data and generate lists of patients who defaulted or were lost to follow up was essential in building bridges between communities and health facilities. These thorough lists allowed CHWs to reach patients at home effectively and proactively.

## CONCLUSION

RARE's community-based approaches to ART retention and reintegration are worth sustaining, and the lessons learned in the first phase of the project will inform future iterations of this approach. Fluid linkages and strong coordination among community outreach mechanisms—including counseling and testing, screening, sensitization, referrals, tracing, and follow up—and health facilities is critical to reinforce adherence and retention in care. The numbers of patients reached and returned to ART show the essential role that CHWs play in management of chronic illness by connecting with patients and supporting and motivating them to continuously follow the advice of health professionals, including attending clinical appointments and adhering to treatment regimens. The project will continue to focus on strengthening community linkages and adherence to HIV treatment, care, and support; improving TB care and prevention; reducing human-rights-related barriers to HIV and TB services, and engaging additional community stakeholders, including mothers, former multi-drug resistant TB patients, and lay counselors for facility-based HIV testing. We encourage the MOH to adopt and institutionalize these strategies.

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