

# EVALUATION REPORT

NAPCD (Center for Public Policy Evaluation and Data Science at the Recife City Hall)



Recife  
2021

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### 1. Introduction and context

Violence as a result of the interaction of individual, relational, social, cultural and environmental factors, challenges many governments to formulate, implement and evaluate public policies aimed at reducing risk factors and increasing social protection factors for populations living in conditions of social vulnerability. Understanding how these factors relate to violence is one of the important steps in addressing the prevention of violence and the perspective of building a fairer and more solidary city.

Data from CVLI index (Lethal and Intentional Violent Crime Index) from the Department of Social Defense of Pernambuco reveal the violent reality of everyday life in the city of Recife, capital of the State of Pernambuco. In the last 11 years, considering the period 2010 – 2020, 6607 occurrences were registered in the city, an average of 600 records per year. During this period, the CVLI rate per 100,000 inhabitants ranged from 44.1 in 2010, reaching a peak of 48.5 in 2017 and ending 2020 at 33.7 occurrences per 100,000 inhabitants. Recife ranked, in 2019, as the 10th most violent capital in the country and the 4th in the Northeast. As a comparison basis, the WHO considers a rate above 10 homicides per 100,000 inhabitants as a characteristic of endemic violence.

Among the occurrences in which it was possible to establish the motivation for the crime, 48% of the total, a representative portion refers to criminal activities (64%) — a result of involvement in drug trafficking, conflicts between gangs and rival factions, among other results of the involvement in illegal activities — and 18% are cases of interpersonal violence — crimes resulting from fights between neighbors, arguments, domestic violence and disagreements in general. The inadequate incentive process for non-criminal activities in the absence of guidance, supervision, and education of children and adolescents so that they have access to good opportunities, in the lack of access to certain economic goods, among other constraints — in areas such as health, housing, culture, labor market, etc. — make up elements that should be discussed not in isolation, but in the light of intersectoral policies, recognizing the transversal nature of the problem.

In this sense, prevention, as a social protection factor, falls to the action of the municipality and public policies as a responsibility to ensure conditions of access to rights and a development in which individual and community potential contribute to the exercise of full citizenship. The recognition of

these potentials, which take place in the territory, represents an important and transdisciplinary asset that brings together points of view and integrates even more community experiences, from cultural practices, sports and leisure, to the system of guaranteeing rights.

In light of this understanding, the Department of Citizen Security of the City of Recife designed the urban equipment “Centro Comunitário da Paz<sup>1</sup>” (Compaz), conceived with a focus on violence prevention, social inclusion and community strengthening, offering new opportunities for children, young people and adults. Based on the Colombian experience of Park Libraries and also other sources of citizenship spaces, the Sustainable Development Goals of the 2030 Agenda 1, 3, 4, 5, 8, and specially 10, 11 and 16 are addressed by the policy. Currently, the program has four units in the city of Recife, with 50,888 people registered by July 2021 and the forecast is that four more units will be built by the year 2023. Known as "Citizenship Factory", the COMPAZ stand out so much by structure, and by the amount of services and assistance offered.

The central objective of the public policy COMPAZ is to reduce violence in the city, through increased social inclusion and community empowerment. It is intended that this main objective is achieved based on the specific objectives: 1. Reduce crime in neighborhoods, through activities that promote the social well-being of the population; 2. Maximize the social impact with the implementation of the equipment, ensuring easy access to the greatest number of people; 3. Prioritize urgent social demands, checking the availability of assistance, health, education and security services, as well as the vulnerability of the population; 4. Improve social indicators, by offering courses and activities aimed at education with the generation of knowledge and opportunities; 5. Efficiently use public resources, as they are increasingly limited, and the government has a wide range of services to provide to meet social needs.

It is, therefore, a social prevention program that connects several services offered by the government in a single place, with an emphasis on social protection, the formation and activation of citizen culture, as well as the guarantee of rights, in policies of youth and in the reduction of social inequalities in the territories.

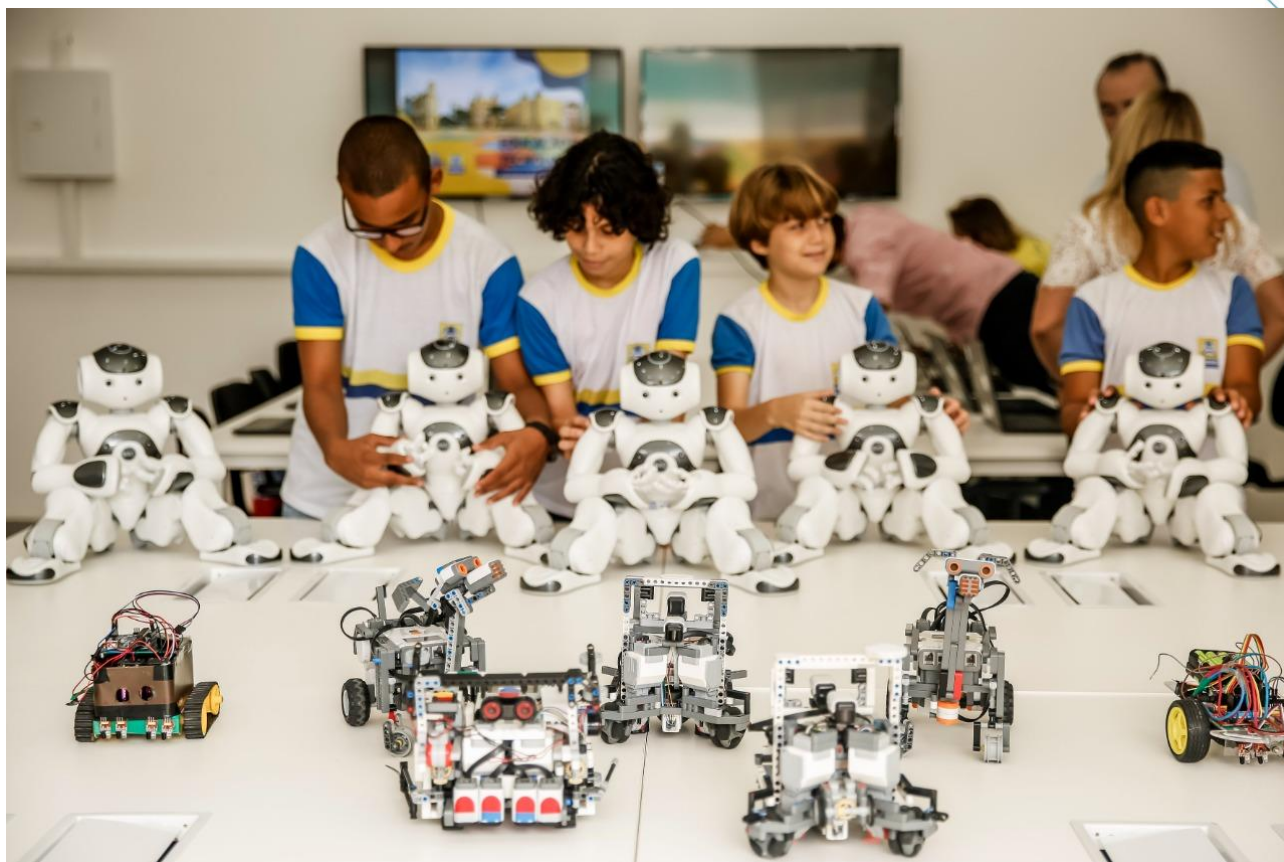
This report presents a study of the characteristics of the users of the Peace Community Centers. Registration is a fundamental element that allows the use of the physical structure of the space, such as the performance and practice of physical activities, workshops, courses and workshops. The data reveal that COMPAZ is a successful equipment in attracting the target group and in integrating different generations of citizens. Also, based on the instrument's focus on preventing violence and the consequent reduction in homicides, this report presents the dynamics of urban violence and its relationship with the inauguration of equipment in the most vulnerable regions of the city. The results of this analysis point to a positive effect of COMPAZ in reducing local violence.

The next four figures show activities being held on the COMPAZ. In those photos, we can see the children and adolescents on projects in different dimensions, like education, reading activities, robotics, computing, and martial arts. It's essential to reinforce that those young would not have these opportunities without the existence of COMPAZ.

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<sup>1</sup> *Community Peace Center*









## 2. Literature Review

In his study on the effect of Compaz on CVLI rates in neighborhoods affected by the program, Rêgo (2018) identified a reduction between 3.9 and 4.2 crimes per group of 100,000 inhabitants. In absolute terms, the reduction of 4.2 crimes per group of 100,000 inhabitants in the treated neighborhoods (there are populations totaling around 83,000 inhabitants) represents, on average, almost 3.5 fewer deaths per month in this region of the city. Given that the average treatment group rates were 2.78 after the policy, it means that the 4.2 reduction represents around 60% of the crime rates that this neighborhood group is recorded in the absence of Compaz.

The study was carried out using the differences-in-differences (DD) method, using panel data from the 94 neighborhoods of Recife during 44 months. To investigate possible model selection biases, the following were performed: matching by propensity scores (PSM); as investigations of spatial spillovers in outcomes (SAR8) or covariates (SLX); and the spatial fixed effects (FE) differentiation method.

The research carried out by Silva (2018), focusing on the degree of satisfaction of elderly practitioners of hydrogymnastics at COMPAZ Ariano Suassuna, identified that older people seek the practice of hydrogymnastics to improve factors arising from aging and are satisfied by evaluating well the excellent activity offered by the equipment, showing the effectiveness of the project. In addition, the author emphasizes that "this benefit is evident in the integral health of the elderly, but also in the well-being of life and in the indication as a medical treatment for physical, mental and social health problems, among others highlighted in the analysis of the questionnaire".

## 3. Methods

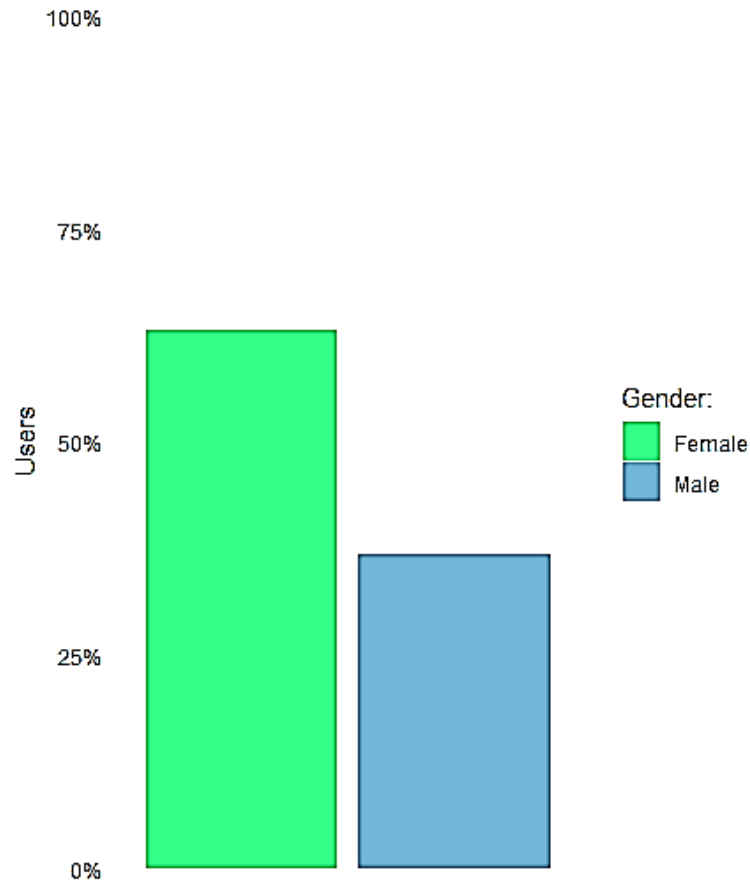
### 3.1 Characteristics of registrants

Over the past 5 years, four COMPAZ have been inaugurated in Recife. The set of instruments directly serves more than 50 thousand citizens — registered users for the use of public equipment — and, indirectly, the entire population of the municipality. If we consider the population residing within a radius of 3 km from the Centers, around 30.3% of the municipality's population (around 466,000 inhabitants) are indirect beneficiaries of the equipment. This first set of evidence presents the distribution of demographic characteristics of the more than 50,000 registered users up to July 2021.

It is important to highlight that registration is only mandatory for services that require class formation — such as courses, sports activities, workshops, workshops, among others. The use of the services of the CRAS (Social Assistance Reference Center), Procon (Agency that carries out consumer protection and protection), Sala da Mulher (Welcome service for women victims of violence), Employment Agency (Municipal Service of support for workers in search of a job, who also work on requesting services, such as unemployment insurance) and Sala do Empreendedor (Entrepreneurial helpdesk focused on micro and small entrepreneurs, formalized or not, seeking to guide them on several topics, including financing lines; preparation of supplier registration; promotion of professional and managerial training courses; information on the Municipal Government Procurement Program; information on granting permits, environmental and sanitary licenses, and taxation).

Thus, it is important to highlight that while the characteristics presented below, in relation to registered users, reflect the profile of citizens who use the space and activities offered in public facilities more intensively, the other services, which do not require registration, are aimed at and used, primarily, by individuals in vulnerable situations.

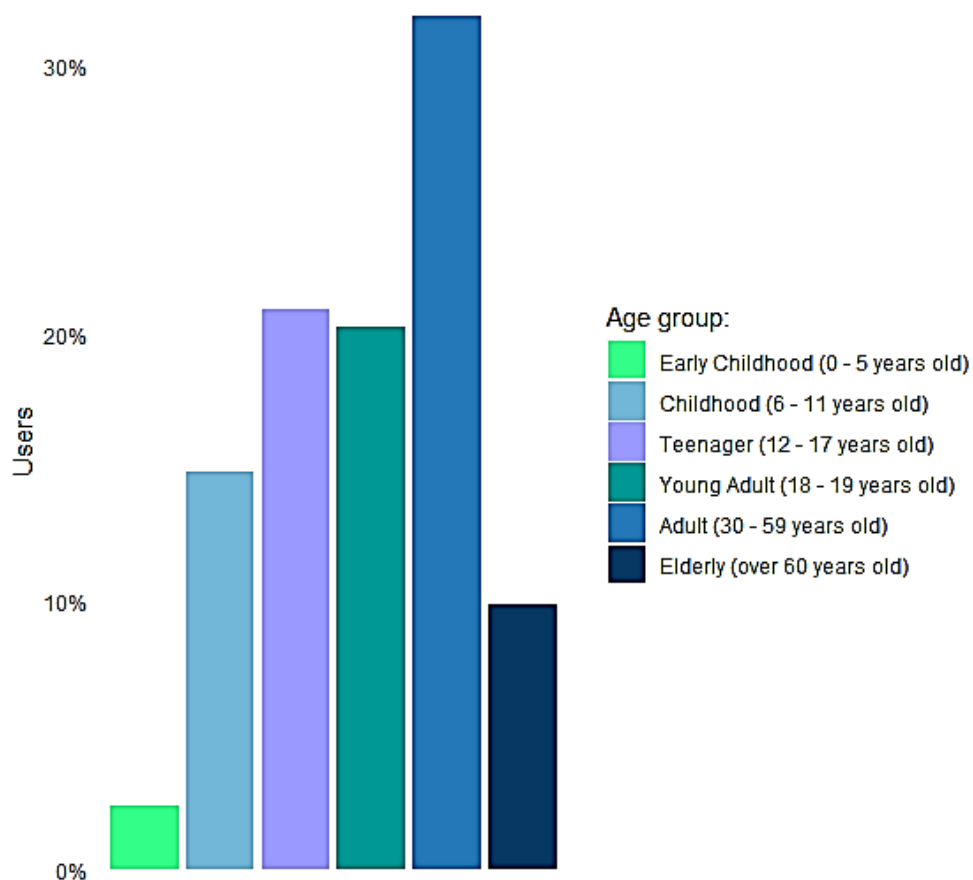
### 3.1.1 Gender and Age Structure



Source: Citizen Security Secretariat  
Elaborated by: NAPCD

The chart above shows the distribution of subscribers by gender. Women represent around 63% of registered users, while men account for around 34%. According to data from the 2010 Demographic Census, the percentage of women in the city is 53.87% of the population. Therefore, there is an overrepresentation of this profile in equipment, especially for women older than the general median, as discussed in the two paragraphs below.





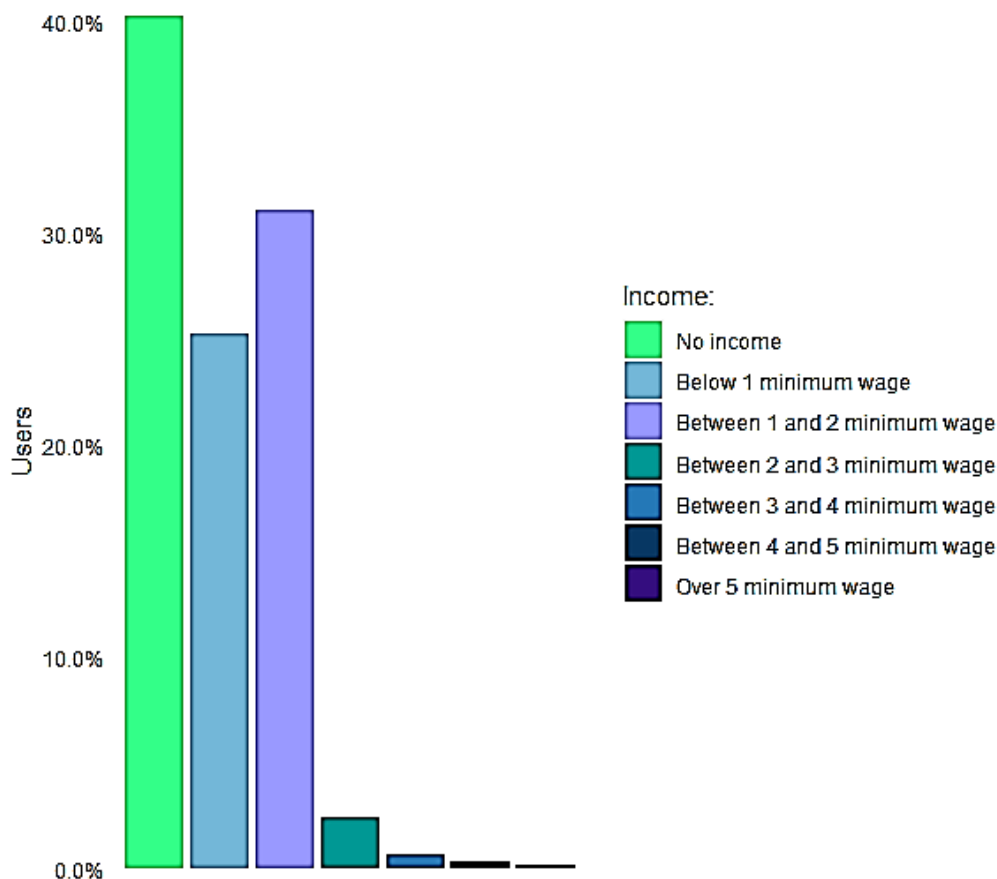
Source: Citizen Security Secretariat  
Elaborated by: NAPCD

The distribution of subscribers by age group, presented following the definitions of age based on the Statute of the Child and Adolescent and the Elderly Statute, reveals that, although there are numerous adult users (30 – 59 years old), representing about 32% of registered users, the target audience of the policy — teenagers and young adults, represent about 41% of users, this number is the result of the sum of adolescents (12 – 17 years old) and young adults (18 – 29) years old).

The two views presented, however, disregard the dynamics of the users' profile when considering the two dimensions together — gender and age group. The median age distribution of users is 23 years of age. The distribution by gender reveals that women attending are, in general, older, with a median of 32 years, and men, younger, with a median of 17 years. This is a result particularly of interest, for 2 reasons: (a) although open to all ages, with activities that cover the different stages of the life cycle, public policy has a specific focus as a center for the younger population, and this target group is being reached within the general distribution of users; (b) the focus on preventing violence falls mainly on the groups with the greatest victimization, they are men, young people, black people and living in regions of social vulnerability.



### 3.1.2 Income Range



Source: Citizen Security Secretariat  
Elaborated by: NAPCD

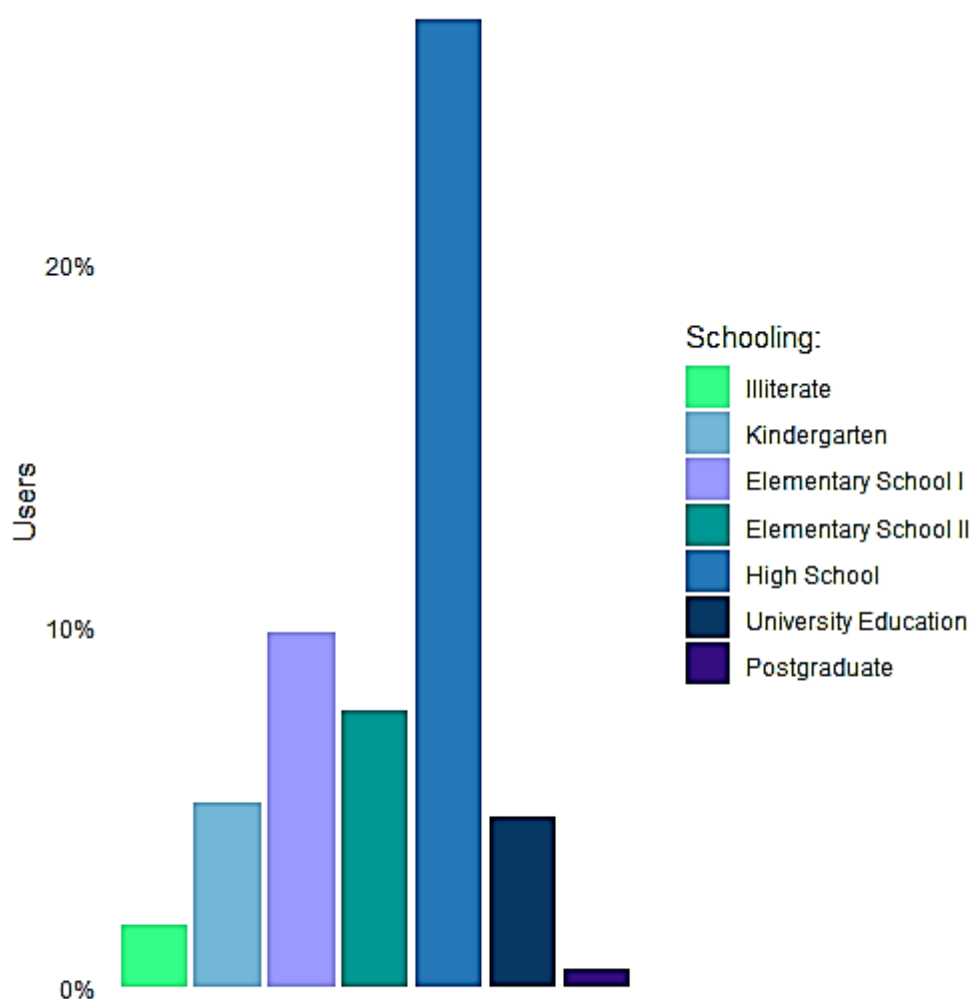
The distribution of income will corroborate the focus that COMPAZ has to serve, mainly, individuals in situations of social vulnerability. The figure above shows the distribution, by income group, for users aged 18 and over. The equipment serves, in general, citizens with no income (about 40% of those enrolled) and with an income of up to two minimum wages (25% with an income of up to 1 minimum wage and 31% with an income between 1 and 2 minimum wages). In 2020, the minimum wage in Brazil was R\$ 1,045, equivalent to US\$ 184.6 dollars (taking as reference the value of the dollar, in relation to the real, in December 2021).

In light of these findings, it is worth noting that, especially in countries like Brazil, where the provision of public services falls short of the population's needs, low income is closely related to a situation of multidimensional poverty, which is characterized by a set of deprivations in social, economic and even political spheres.

### 3.1.3 Education and Occupation

The figure below exhibits the schooling status at the time of registration for the total number of registered individuals. Almost 30% of users were in high school, showing that COMPAZ has the

capability to attract young people to their activities. The other two groups with more participation are Elementary School I and II, with, respectively, 10% and 8% of users registered. Those groups are composed of children and adolescents between the ages of 6 and 14, reinforcing the COMPAZ as equipment essential for the day-to-day life of young people in the most vulnerable areas of the city.



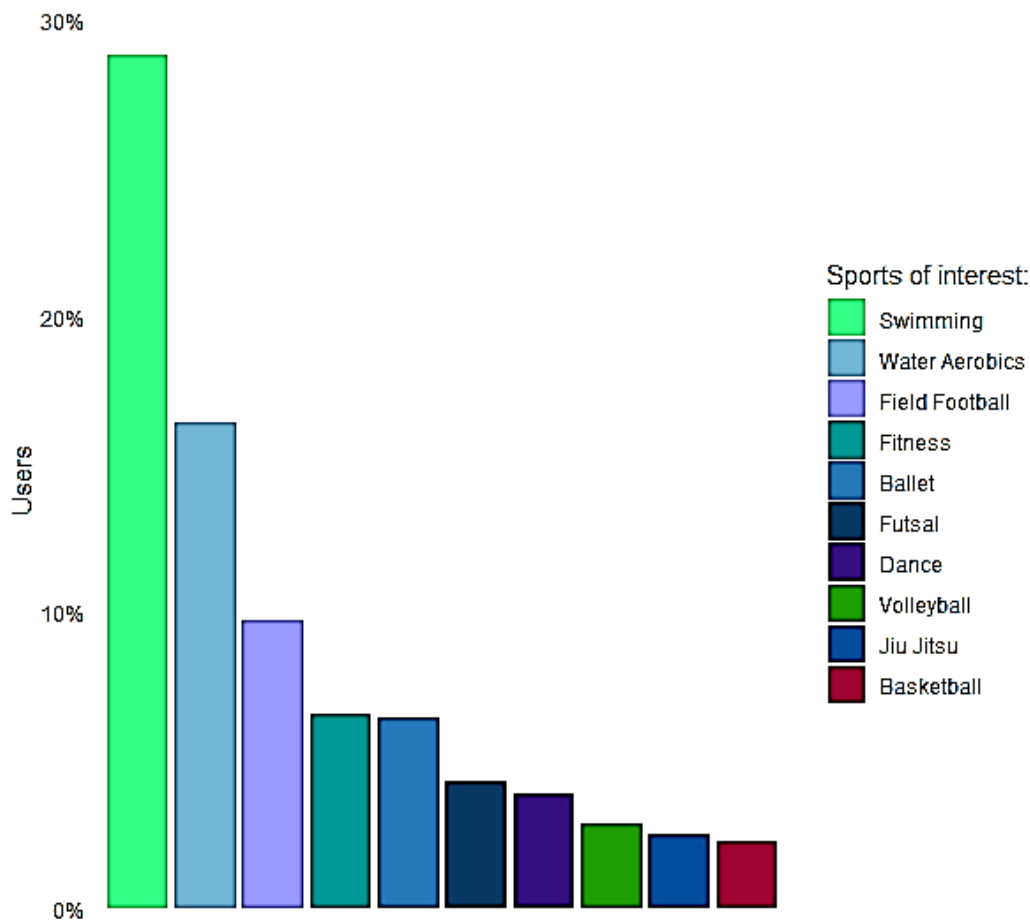
Source: Citizen Security Secretariat  
Elaborated by: NAPCD

COMPAZ shows, for the total number of registered individuals, the status of occupation at the time of registration. COMPAZ serve, in a more representative way, students (about 36% of those enrolled), which is consistent with the focus on youth and on attracting young students to the set of sports activities and courses offered, filling the 'free hours' and redefining the experience of these young people with education, sports and interaction with the government.

Another group overrepresented in the distribution of applicants is the unemployed (about 25% of those registered), which is also consistent with the instrument's focus on training, through courses and workshops, aimed at employability. Another important point is that, by attracting individuals who are not studying or making up the labor market (formal or informal), COMPAZ presents itself as an alternative to the illegal market (drug trafficking and/or committing crimes related to theft and theft).

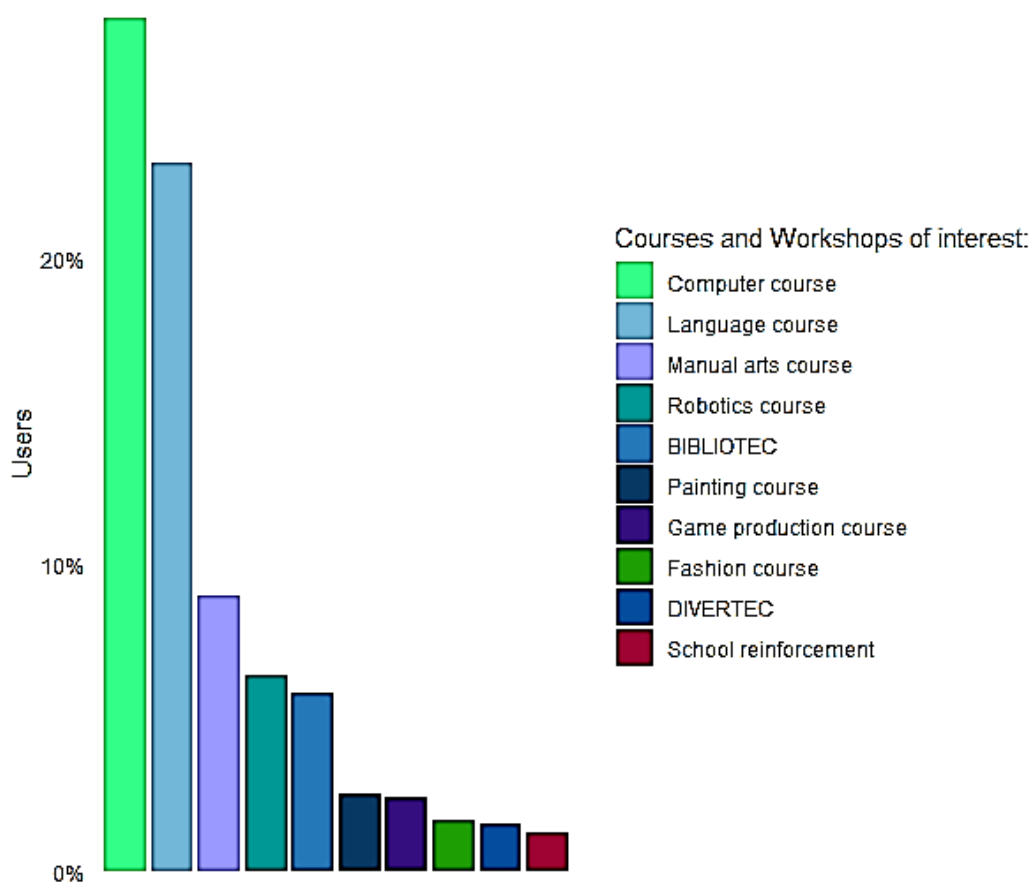
### 3.1.4 Sport Activities and Workshops

Finally, at registration, users can indicate, if they wish, which sports activities or courses are of most interest. Although this is an answer with low adherence — only 47% of registered users answered the question about sports activity and 17% answered about courses of interest — such findings are essential in identifying the demands and planning for future activities offered in the equipment.



Source: Citizen Security Secretariat  
Elaborated by: NAPCD



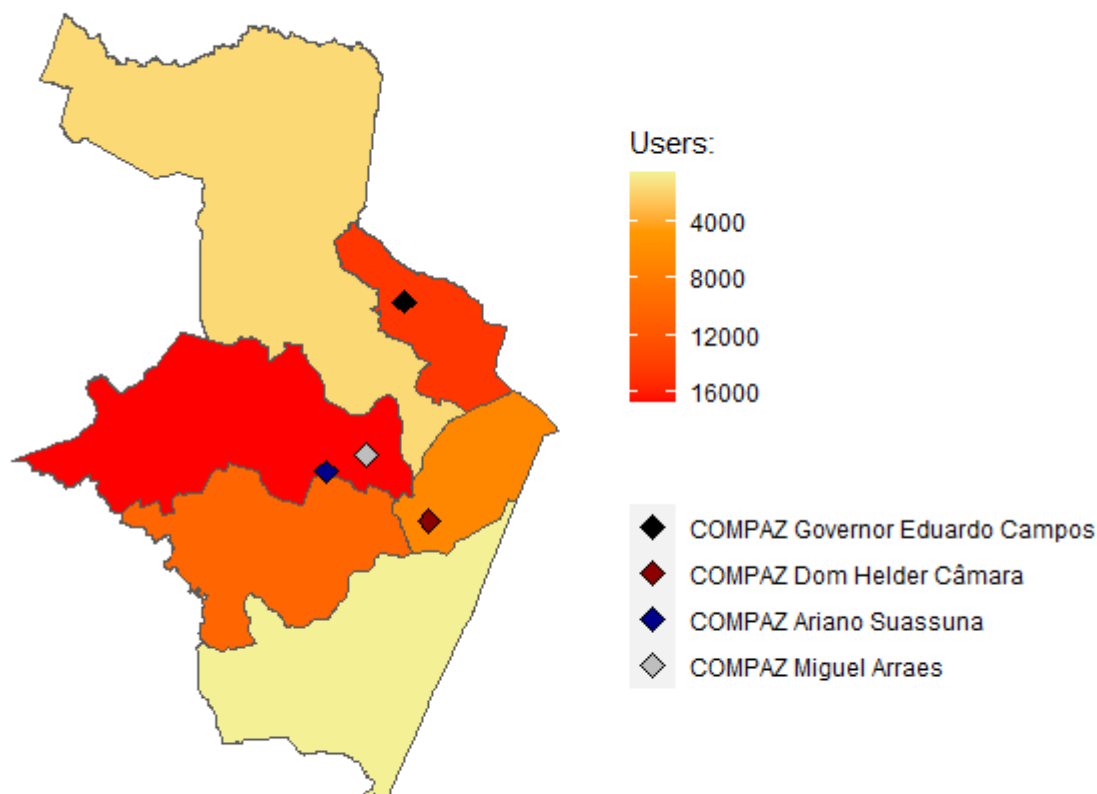


Source: Citizen Security Secretariat  
Elaborated by: NAPCD

### 3.2 COMPAZ and the dynamics of violence in the territory

The definition of COMPAZ as spaces for citizen coexistence aimed at preventing violence by reducing inequalities and offering educational, cultural, sporting and citizenship services activities, aligned with the contents of the culture of peace and promotion of human rights, requires a careful look at the dynamics between these equipments and violence in urban territory. All four centers are located in areas of great social vulnerability, identified from the survey of official violence indicators, especially those of CVLI which includes the occurrence of homicides, robbery and injuries followed by death.

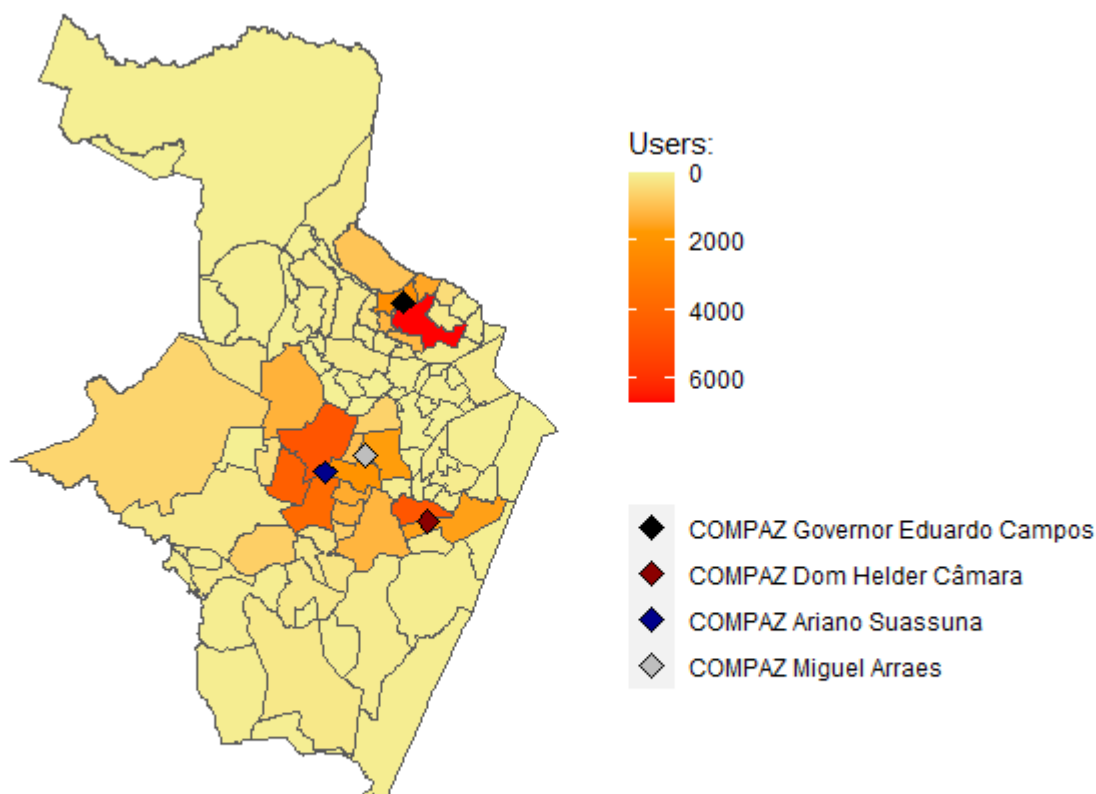
Although the criterion for defining the location of the units has privileged the most violent regions of the city, within a violent neighborhood, or even within a broader set of violent neighborhoods, crime tends to be more concentrated in certain regions of space. The set of evidence presented seems to corroborate the importance of this location to enhance the impacts on reducing local crime.



Source: Citizen Security Secretariat  
Elaborated by: NAPCD

The two maps above show the distribution of COMPAZ users by neighborhood and RPA — Administrative Political Regions — in Recife. What the distribution of users reveals is that each equipment has a concentrated local effect, mainly in the neighborhood where the equipment is located and in the surrounding neighborhoods. An analysis of the number of subscribers by distance, for the COMPAZ units, shows us that, on average, 56% of registered users are located at a distance of up to 1 km from the equipment, this percentage rises to around 80% when considering a distance up to 2 km.

As a way to assess the dynamics of CVLI in regions benefiting from the presence of public equipment, it was decided to build an evaluation of the average of occurrences before and after installation of the equipment, as well as an analysis of the behavior of the moving average of the CVLI throughout of the historical series. For this purpose, objective criteria were adopted to define the groups of treaties and control, taking the neighborhoods of the municipality as the observation unit (the most disliked unit of information on the place of occurrence of the CVLI).



Source: Citizen Security Secretariat  
Elaborated by: NAPCD

The group of neighborhoods treated was chosen based on the distribution of those registered by neighborhood. If 5% or more of the analytics equipment registrants are neighborhood residents, then the neighborhood is considered treated. Otherwise, it is considered as part of the control group, which is made up of the other neighborhoods in the city. Care was taken, however, not to include, as a control for other equipment, the set of neighborhoods that are already part of another treaty group. This was avoided by building the analysis by date of inauguration of each equipment.

The 24-month moving average consideration period was chosen as a way of observing a possible medium-term trend in the dynamic of the CVLI in the two analysis groups – neighborhood from the treaty set and neighborhood from the control set. Also, due to the Covid-19 pandemic, which significantly changed the dynamic of urban daily life, enhancing the situation of social vulnerability to which the poorest are subject, it was decided to use the CVLI historical series up to March 2020. During this period, not only the dynamics of urban violence deserves special attention, with studies that take into account the new dimensions imposed by greater social isolation, but also, due to sanitary restrictions at the requested time, the equipment needed to interrupt activities with face-to-face care, remaining closed during March 2020 until April 2021.

There are three main channels through which we can discuss, at first, the impact of equipment on the dynamics of urban violence. First, in light of the theory of routine activities explained by Cohen and Felson (1979), which treats the execution of violent crimes as dependent on the relationship between three elements: a potential perpetrator, a potential victim and the absence of a capable security system. to prevent the occurrence of the crime. Based on this theory, the presence of public equipment and its influence on changing the dynamics of the population's presence in the region would reduce the chances of crime occurring in the region.



A second channel refers to the impact of the instruments on populations that, within the demographic structure, are potential perpetrators (or victims) of CVLI. It is, more specifically, the proportion of young men in the population. As Thornberry (1996) points out, crime is not a constant in the individual's life cycle and there are several studies that link not only gender, but also age, to greater chances of victimization. Based on this theory, by adopting as a target group citizens in their adolescence and early adulthood, COMPAZ would act by interrupting this cycle of violence among the younger population.

Finally, in a longer-term perspective, the effects of reducing violence would result from a reduction in the social vulnerability of communities — and a consequent reduction in inequalities. Within this perspective, by spreading the culture of peace, establishing itself as an element of the presence of public authorities in the region, with the provision of services in various spheres, COMPAZ will act by modifying social interactions and changing perspectives — professional and life — of future generations.

### 3.2.1 — *Compaz Governor Eduardo Campos*

COMPAZ's first unit, inaugurated in March 2016, on Recife's 479th anniversary, the public equipment is located in a region of high social vulnerability, on the border between two low-income neighborhoods — Água Fria and Alto Santa Terezinha — lacking a whole range of public services that make up COMPAZ.

From the distribution of subscribers by neighborhood, given the criterion adopted to establish the control group, 6 neighborhoods stand out, which together contain 84% of those enrolled in the unit. This set of 6 neighborhoods was the treated group, while the other neighborhoods of the city composes the control group. The average of occurrences, per month, was obtained weighted by the population of the neighborhood and the moving average, built (also per month), takes into account 24 months (2 years).

The red line shows the moving average behavior for the set of neighborhoods that make up the group of treaties, while the blue line shows the CVLI dynamics for the other neighborhoods in the city. Although in a downward trend, it is worth noting that after the instrument's inauguration, there is a significant detachment of the two series, especially during 2017 and 2018, when there is a reduction in the CVLI moving average in neighborhoods with greater presence of subscribers to the equipment, accompanied by a growth in the scenario of urban violence — measured by the CVLI — in the other neighborhoods of the city.

Time period (months)	Treatment Group	Control Group
0	1.81	1.83
24	1.56	2.16
48	1.44	1.77

The table above shows the average behavior at 3 different times. In period 0, which corresponds to the moment the program was launched, there is no significant difference between the two groups. 24 months after the equipment's inauguration, however, the moving average of the treated group has fallen by about 14%, while that of the control group has risen by about 18%. 48 months after the inauguration of the equipment, the moving average of the treated group, in relation to the base period, fell by about 20%, while for the control group there was a reduction of about 3.2%.



Source: Social Defense Secretary  
Elaborated by: NAPCD

### 3.2.2 — COMPAZ Ariano Suassuna

According to the equipment inaugurated, delivered to the population in March 2017, the Compaz Ariano Suassuna is located in a region with a high CVLI index, in a point in the neighborhood that optimizes access to public equipment, close to an avenue with high circulation of vehicles (public transport) and people.

When the equipment was inaugurated, there was already a difference between the two groups of neighborhoods. It is noteworthy that the control group does not consider the set of neighborhoods treated by the first equipment launched. As result, there is a 5% reduction in the moving average for the treated group, while this value remains stable for the control group.

During the period from March 2020 to March 2021, there was not only a restriction on movement (use of equipment) and interruption of all activities carried out in person but also the entire dynamics of everyday urban life changed. For this reason, the 48-month analysis was not carried out until ongoing studies on the impacts of the pandemic on the various dimensions of urban dynamics are completed.

## 5. Conclusions

The day-to-day life in Brazilian urban centers contributes in different ways to the production, support, and maintenance of violent processes. Younger generations are particularly affected by these scenarios. The absence of common consensus and normative values is directly reflected in the formation of individuals. In light of what has been exposed in this report, it is clear that COMPAZ serves, in a more significant way, the population in a situation of higher vulnerability, acting as equipment aimed at preventing violence.

The presence of the users in different age groups reveals that, in addition to the priority target group, COMPAZ acts (and serves) users in all age groups, acting as a space for integration between generations. The high number of unemployed users also reflects the focus as a space for the formation of opportunities. While these findings alone are not sufficient as an argument for the eventual success of the equipment in promoting peace and preventing violence, the subsequent analysis by CVLI, presented in this report, guides the relationship between the equipment and the surrounding urban dynamics.

For the two types of equipment analyzed – Compaz Governador Eduardo Campo and Compaz Ariano Suassuna – there was a reduction in the CVLI moving average in neighborhoods where a greater number of users use the equipment. These results are enhanced by the observation that in the control groups (other neighborhoods in the city) there was an increase in the moving average of the number of cases, indicating an increase in violence in other regions.

A large, light blue watermark of the Recife Prefeitura logo is centered on the page. It features the coat of arms and the text "RECIFE" and "PREFEITURA" in a large, bold, sans-serif font.