

The impact of SARS-COV-2 (Covid 19) on the Romanian penitentiary micro-society

Dan Vasile ARDELIAN^{1,2*}, Elena GRIGORE³, Dana Maria CONSTANTIN (OPREA)³, Elena BOGAN³, Florina TATU³

¹University of Bucharest, "Simion Mehedinți-Nature and Sustainable Development" Doctoral School - PhD Student

² Prison Police Officer – ANP

³ University of Bucharest, Faculty of Geography, Romania

*Correspondence: dan-vasile.ardelian@drd.unibuc.ro

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Abstract: The health of prisons also represents a component of the public health. The management of the epidemiological situations, regardless of the environment in which they occur, is, in itself, a major public health issue. The World Health Organization (WHO) reports confirm that the risk of contamination in the prison environment is similar to that in the residential environment. In general, the infection rates in prisons followed those of the population. This virus affects everyone, both detainees and employees of this system. Even in these special conditions, the Romanian prisons did not become sources of infection out of control. The present study will highlight the impact of this virus on the prison environment. According to the latest official reports of the National Administration of Penitentiaries (ANP), the vaccination of the prison population is confirmed in the proportion of 77.4% (currently over 16.0% of individuals being released). Following this pandemic, the ANP leadership together with the responsible national institutions are launching new norms and procedures with immediate applicability, in general, aiming measures to prevent the spread of the airborne diseases.

1. Introduction

Over time, the human society has faced various epidemics, which had, more or less, significant consequences on the population. Charles Edward Amory Winslow, on February 9th, 1920, in the lecture *Untapped areas of public health*, argued that the public health can be defined as: " ...the science and art of preventing disease... prolonging life and improving the quality of life through organized efforts and correct information of the society, organizations (public and private), communities and people ..." (Winslow, 1920). Being a concern of all citizens, the state of health means that the health in prisons must also be assimilated and analysed as a component of the public health.

The human micro-societies specific to the carceral environment are permanently subject to the phenomenon of transmission of various airborne diseases. This closed environment is recognized as one with a high risk of transmission of various diseases. Also, in this type of closed environment, the internal conditions favour coexistence spreading. For example, overpopulation, prison mobility, poor hygiene conditions etc. transform the penitentiary into a fertile and ideal area for viruses. We have specified these things because the Coronavirus is a transmissible disease, from human to human, with a rapid spread. The World Health Organization (WHO) is still evaluating the general and particular condition developed by this virus. Thus, research is ongoing, and updates are daily, as needed.

Since 2016, prisons have been said to be epicentres for infectious diseases. The level of the closed environment is high as a risk factor for infection, because contact is

inevitable, the areas are often overcrowded and poorly ventilated. To all this, we can add inadequate sanitary facilities and poor access to health services in relation to the civil population (Dolan et al., 2016). Infections can be transmitted in several ways: between prisoners; through staff; through visitors; between penitentiaries through transfers; staff relocation/secondment etc. As such, prisons and other places of detention are an integral part of the public health (Simpson and Butler, 2020), and the response to virus disease is everyone's responsibility. As we have presented above, epidemics have always existed. For example, smallpox, cholera, measles, tuberculosis and, above all, the much-dreaded plague, repeatedly struck the world population, having a strong impact on society, economy, political relations and helping to shape history (Hays, 2005). In other specialized works on the emergence of epidemic diseases, it is said that they coincide with the start of the agricultural revolution, through the transfer of bacteria and viruses from domestic animals to humans, a process also facilitated by the creation of sedentary human communities, whose density increased due to the improvement of agricultural technologies (Diamond, 1998). Another well-known example is that of measles and smallpox. Measles arose from the domestication of dogs, while smallpox appears to have passed from cattle to humans (Dobson, Carper, 1996). Another line of research considers that technological progress presents the disadvantage of rapid transmission of pathogenic factors. This process of transmission is accelerated by the increase in the density of human settlements or population and the emergence of circulation between them. Low human immunity and exposure to bacteria and viruses also lead to a high rate of infection and a considerable number of deaths.

The most well-known pandemics reported in the last 120 years have been presented on weather.com and worldometers.info (Table 1), to which current information from the World Health Organization (WHO) has been added. These sites used information provided by Tognotti in 2009 and Saunders-Hastings & Krewski in 2016.

Table 1. Pandemics reported in the last 120 years

| Name of pandemic | Year / period | | Number of deaths – stated / approximately |
|-------------------------|----------------------------|------------------------|--|
| Russian flu | 1889 | in Europe worldwide | 250,000 1,000,000 |
| Spanish flu | 1918 – 1920 | | ≈ 50,000,000 |
| Asian flu | 1957 – 1958 | | ≈ 4,000,000 |
| Hong Kong flu | 1968 – 1970 | | ≈ 4,000,000 |
| Swine flu | 2009 – 2010 | | 575,000 |
| Covid 19 | December 2019 - present | 30.04.2020 | 243,074 |
| | | 17.04.2021 | 3,404,353 |
| | | 10.07.2022 | 6,372,358 |

2. Datasets and methodology

Since December 2019, the rapid spread of the Sars-CoV-2/Covid-19 virus has generated an unprecedented global crisis. In this context, scientists and researchers have made a series of efforts to stop the spread of the virus and to find quick and appropriate treatment solutions. The attention, in the case of this study, was directed to the situation of persons deprived of liberty, analysing the impact of the pandemic on this closed environment, with certain particularities of coexistence, subject to clear and fully applicable regulations. The analysis highlights the period between 2020–2021. The attention being directed to the workforce of persons deprived of liberty. Regarding other specific aspects in the current analysis, the situations are presented according to the statistical data provided by the Romanian authorities. The main objectives of the study were to: identify the impact of the pandemic on the prison population; to identify the methods of managing the activity necessary in the case of the pandemic; to highlight the relationship of the prison authorities with the prisoners and with the rest of the bodies

involved in the activity of stopping this pandemic. For the public health, Sars-Cov-2 outbreaks in detention facilities become important because an explosive outbreak can overwhelm health care services within prison facilities and overburden facilities in the public health network. It should also be taken into account that, worldwide, annually, approximately 30 million people are released and that prison is a vector for the community transmission of potential infections, which will have a disproportionate impact on marginalized communities (Akiyama et al., 2020).

The present study is developed based on the accumulation of statistical data officially provided by both the World Health Organization (www.who.int), and the national official websites (www.mai.gov.ro, www.insp.gov.ro etc.), the website of the Ministry of Health (Corona forms platforms and alerte.ms.ro). After the accumulation of the statistical data, we also applied a series of processing. In this sense, we used specific programs from the Microsoft Office package. In the case of the present study, as it is a special environment, that of persons deprived of liberty, the specific statistical data were provided by the National Administration of Penitentiaries (ANP).

The Coronavirus pandemic, being a health crisis, affects the health of the population. Also, crisis causes loss of human life and puts a high pressure on the health care system of the affected states. In this context, the number of illnesses, the number of deaths and the state of the health care system in prisons are at the center of analyses dedicated to the impact of the virus on the population. The analysis of mortality data gives us an overview of the impact of the epidemic. Based on this data, the political decision-makers adopt certain public policy measures to limit the spread of the infection (ICCV Social Report, 2020). WHO on May 16th, 2020 issued a document in this regard – *Annex I: WHO International Guidelines for Certification and Classification (coding) of Covid-19 as cause of death*. By inserting the disease codes, a useful and adequate transmission of the overall situation to the population was possible. Thus, the statistical data began to be officially communicated by codes for a proper ranking. Statistics becoming clearer, distinguishing between the data related to cases of illness and the data referring to deaths, respecting the general classification: U07.1 - death from Covid-19 with identified virus and U07.2 - death from Covid-19 with an unidentified virus.

In the case of the penitentiary system, the WHO directive specific to this environment was also used – *Preparation, prevention and control of Covid-19 in prisons and other places of detention: interim guidelines March 15th, 2020*. Thus, WHO, through regulations presented by the Regional Office for Europe, fully support the WHO Guidelines on Prisons and Health approved since 2014. This document highlights the following: “... *prisons and other places of detention are closed environments where people (including staff) live in close proximity...each country has the responsibility to and increase preparedness, alertness and response to identify, manage and care for new cases of Covid-19...countries should prepare to respond to different public health scenarios...there is no one-size-fits-all approach to managing cases and outbreaks Covid-19...*”. In the case of Romania, after repeated erroneous declarations, by the Order of the Minister of Health 526/19.04.2021, a commission was also nominated to verify the way of reporting of Covid-19 deaths, even though data collection was initially regulated by the Order of the Action Commander 75988/ 27.04.2020 regarding the establishment of measures for the collection, centralization and reporting of specific Covid-19 data, later supplemented by order 75991.

3. Results and discussion

The way the virus spread made the pandemic caused by Sars-CoV2/Covid19 fall into the category of new risks. The first illnesses were reported in China in the last days of December 2019 (WHO, 2020). On March 11th, 2020, the World Health classified the general situation in the category of pandemics. According to the reports of this organization, 114 countries transmitted 118,000 cases of illness and 4,291 deaths were reported (WHO, 2020). Also, among the most well-known vectors of the reported

infection transmission, there was the relatively long incubation period between 2 and 14 days and the fact that some of the infected remain asymptomatic. Added to these factors was the free movement of people between many of the world's states. Freedom led to the elimination of epidemiological triage at border crossings (MacPherson, Gushlak, MacDonald, 2007). The virus has spread very quickly over long distances, affecting directly or indirectly the entire population of the Globe (ICCV Social Report, 2020). Following Tedros Adhanom Ghebreyesus' statement, the general director of the World Health Organization, who said "*we made an assessment, and the situation generated by Covid-19 can be characterized as a pandemic*", WHO declared a Coronavirus pandemic on March 11th, 2020. In Romania, the first case of infection with Sars-Cov2 officially reported in the Romanian press was on February 27th, 2020, after a series of investigations (stirioficial.ro, 2022). This case arose as a result of a direct contact of a resident of Gorj county with a contaminated Italian citizen who was in Romania at that time.

The National Penitentiary Administration, following the official news and being a responsible organization that applied and complied with the directives of the WHO Guidelines on prisons and health approved in 2014. ANP created *the Plan of measures to prevent illness and the spread of the infection with Covid-19, among the staff and private persons to be released*, on February 24th, 2020. According to the information bulletins on the anp.gov.ro website, the plan aimed to implement three categories of measures for Covid-19, respectively: general prevention measures; specific intervention measures for detainees extradited from areas with epidemiological risk; crisis intervention measures in case the laboratory results confirm the infection of persons deprived of liberty. Later, in March 2020, the official reports on the website also signalled other preventive measures that were taken. The General Director of the National Administration of Penitentiaries issued the decision to establish a *Technical-Medical Support Group* responsible for *managing and proposing measures regarding the epidemiological situation, monitoring the implementation of the Plan of measures, centralizing relevant data to the current epidemiological context and ordering urgent measures, in the event of an increase in the incidence of confirmed Sars-CoV-2 cases at national level* and the *Intervention Methodology to combat the Covid-19 infection in the penitentiary system*, on the medical line. All decisions have proved to be in accordance with the Ministry of Health Order 489/23.03.2020, published in the Official Gazette of Romania 264/31.03.2020.

Thus, the Bucharest-Jilava Penitentiary Hospital was designated *on the list of health units that will carry out priority actions for the monitoring, treatment and care of patients with emerging and re-emerging diseases such as Covid-19*. The general director's decision ordered that, during the maintenance of the state of emergency, the *Anesthesia and Intensive Care section*, within the Bucharest-Rahova Hospital Penitentiary, to be subordinated, from an operational point of view, to the one in Jilava. Also, financial resources were allocated to ensure the necessary funds for the purchase of sanitary materials and protective equipment for the prevention of illness with Covid-19 in the amount of 1,232.1 thousand lei. Also, the development of 8 action scenarios regarding the management of problematic situations due to the evolution of the Sars-CoV-2 infection at the level of the penitentiary system were officially announced. In Romania, the state of emergency was established on March 16th, 2020 (Decree 195/16.03.2020), and on March 22nd, 2020, measures to prevent the transmission of the virus were adopted, respectively border closures and isolation at home. Analysing the evolutionary picture of the way the virus is transmitted, in Romania it was found that the number of cases is increasing significantly. On May 1st, 2020, the following values were recorded: 12,567 cases; 726 deaths; 4,328 healings. The analysis of data on the evolution of the pandemic in Romania highlights a constant increase in confirmed cases and the number of deaths. The evolution of cases shows an increasing evolution "*in the teeth of a saw*" of the number of confirmed cases, of patients admitted to ATI, of active cases and the number of deaths and a decrease in the mortality rate (UEFISCDI, 2020).

Concerning at the percentage analysis, there may be found out that of the death rate share is 6.0% and the share of the cure rate is 34.0%. On April 30th, 2020, analysing the

statistical data provided by the WHO worldwide for Europe, for example, a percentage of 46.0% of illnesses and 63.0% of deaths were provided. Most cases were recorded in Spain, Italy, Great Britain, Germany and France (Kluge, 2020). It is estimated that the actual number of cases of infection is 4 times higher worldwide than the number of diagnosed cases, but this number varies from country to country (Bohk-Ewald et al., 2020). The National Institute of Public Health, on July 10th, 2022, publishes the global situation of those who have fallen ill with Covid-19. Thus, it can be noticed that there are 560,194,870 confirmed cases of Coronavirus infection (Figure 1) of which 6,372,358 deaths.



Figure 1. Current global situation of Coronavirus cases – screenshot after <https://who.maps.arcgis.com/home/index.html>, July 10th, 2022

At the end of 2020, at the National Penitentiary Administration level, there were reported a total of illnesses:

- among the persons deprived of liberty, 826 persons (Table 2) and 5 people who died because of Coronavirus as a comorbid condition (those who died had various respiratory diseases);
- among the employed staff – 1254 people (Table 3).

Table 2. The monthly number of persons deprived of liberty and the monthly number of confirmed cases with Sars-CoV-2, period 2020 – 2021

| Year / Month | 2020 | | 2021 | |
|--------------|-----------------|-----------------------|-----------------|-----------------------|
| | Total effective | Total infected people | Total effective | Total infected people |
| January | 20,570 | 0 | 21,899 | 177 |
| February | 20,626 | 0 | 21,990 | 105 |
| March | 20,666 | 0 | 22,233 | 368 |
| April | 20,302 | 0 | 22,526 | 333 |
| May | 20,096 | 0 | 22,714 | 66 |
| June | 20,318 | 0 | 22,900 | 2 |
| July | 20,779 | 0 | 23,057 | 1 |
| August | 20,932 | 0 | 23.104 | 2 |
| September | 21,128 | 5 | 22,920 | 263 |
| October | 21,466 | 214 | 22,862 | 753 |
| November | 21,625 | 227 | 22,900 | 600 |
| December | 21,753 | 522 | 22,953 | 261 |

source: statistical data processed according to ANP, 2022

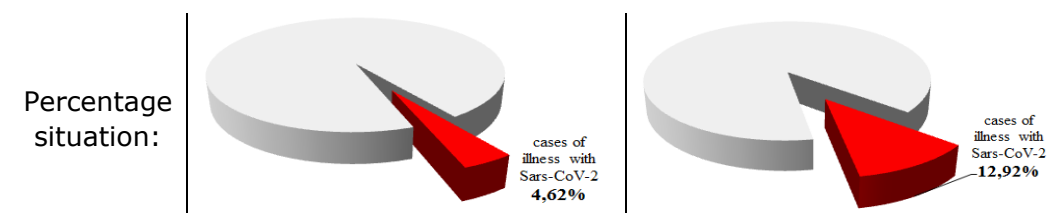


Table 3. The number of confirmed cases of Sars-CoV-2 among the NAP employees, period 2020-2021

| Year | Total monthly infected people | | | | | | | | | | | | Total |
|-------------|-------------------------------|-----|-----|----|----|----|-----|------|-----|-----|-----|-----|-------|
| | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | |
| 2020 | 0 | 0 | 0 | 20 | 10 | 12 | 59 | 49 | 55 | 275 | 478 | 296 | 1,254 |
| 2021 | 165 | 110 | 308 | 73 | 6 | 1 | 4 | 31 | 223 | 524 | 102 | 36 | 1,583 |

source: statistical data processed according to NAP, 2022

In the case of the employed staff (those who have a permanent connection with the outside world), there were reported illnesses starting April (Table 3), and in the case of the persons deprived of liberty, starting September (Table 2) and they also had the first recorded deaths. At the end of 2021, the reports indicate a total of illnesses: among the persons deprived of liberty – 2,931 persons (Table 2); among the employed staff – 1,583 people (Table 3). This year, the cases of illness have recorded a radical change. In the case of the persons deprived of liberty, there is a significant increase compared to the previous year, such as sudden increases in spring and autumn, and decreases during the summer (Table 2). In the case of the employed personnel, an insignificant increase is noted, compared to the previous year (approximately 300 cases) and lower than that of the prisoners (approximately 1,400 cases) (Table 3). Both the evolutionary types followed the rate of infection manifestation at the level of Romania, respectively decreases during the summer and increases during the spring and autumn.

Taking into account that at the level of the organization, preventive measures were taken in time and they were applied appropriately and responsibly at the level of the organization, the number of illnesses and deaths among the persons deprived of liberty were kept to a minimum, without the danger of the rapid expanding of the crisis expanding. It can be seen by analysing the centralization of the data in Table 3 that, relative to the total number of the detained persons, the percentage of Sars-CoV-2 cases registered shows low values, respectively 4.62% in 2020 and 12.92% in 2021. Compared to the situation in Romania, the disease share of the persons deprived of liberty did not exceed 0.15% of the total declared at the country level (0.13% in 2020 and 0.15% in 2021).

Regarding the situation of vaccinations, the access of the persons deprived of liberty to vaccination against Sars-CoV-2 was ensured from January 2021. At the end of this year, approximately 80.0% of the incarcerated people were immunized. Compared to the national average, this percentage is significantly increased. On December 27th, 2020, at the national level, the vaccination campaign was started. ANP was among the first institutions that responded positively to this campaign, being registered the first 4 vaccinated persons deprived of liberty, on January 2nd, 2021. A graphic with three stages of immunization of people in custody was also created. At the same time, the vaccination campaign for the employed personnel also started. Thus, at the end of 2021, approximately 68.0% of employees were immunized by vaccination against Sars-CoV-2 infection. Analysing the general situation of immunization through vaccination at the level of the ANP component units (44 penitentiaries and 4 specific units), through processing, there were found the following situations:

- in the case of the persons deprived of liberty: in 4 penitentiaries, the immunization was over 90.0% (Craiova, Bucharest-Jilava, Baia Mare, Tg. Ocna-hospital); in 19 units, the percentage varied between 80.0 - 90.0%; in 11 units between 70.0 -

- 80.0%; in 4 units between 60.0 - 70.0% and in other 5 units, the percentage is below 60% (the lowest values recorded being approximately 37% in Brăila and Buziaș);
- in the case of the employed personnel, the analysis indicates: 1 penitentiary with a percentage over 90.0%, respectively Brăila-Tichilești; 6 units with a percentage which varies between 80.0 to 90.0%; 12 units with a variation between 70.0 - 80.0%; 11 with the variation between 60.0 - 70.0%; 19 units under 60% immunized (the lowest recorded values of 36.0% were in the Sovata and Flamingo units and 42% in Bucharest-Rahova).

Filippa Alves de Costa, consultant for the Prison Health program run by the WHO together with 11 news agencies from the European Data Journalism Network, have collected statistical data from 32 states, regarding the situation of cases of illnesses, deaths, progress of the immunization campaign and the measures taken, first of all, to confirm that the risk of contamination in closed environments specific to prisons is similar to that to which the people living together in residential facilities are exposed. In the following, there will be presented part of the conclusions of this investigation, such as the data on the proportions of infection and vaccination rates at the European level. In Figure 2 a, where the share of infection is highlighted, one can observe the following situation in the European countries in 2021, where cases in prisons are more than the cases in the total population and cases in prisons are less than in the total population. Figure 2b shows the share of vaccinations compared to the total vaccinated population, being indicated the vaccinated persons at least once and vaccinated with the entire schedule.

Among the main measures to combat the Coronavirus, taken by the management of the institution we may identify: the designation of some penitentiaries-hospitals to ensure the health and safety services of the patient (Bucharest-Jilava, Constanța – Poarta Albă – for the accommodation of the male persons confirmed with Sars-CoV- 2; Bucharest-Prahova – ATI support; Ploiești and Timișoara penitentiaries – for accommodation of those who have gone through the disease; Aiud, Drobeta Turnu Severin, Baia Mare penitentiaries – areas for quarantine, monitoring and respiratory isolation); the purchase from own funds of two non-invasive body scanning devices; the development of informative materials regarding the psychological effect of the epidemic and various practical application tactics.

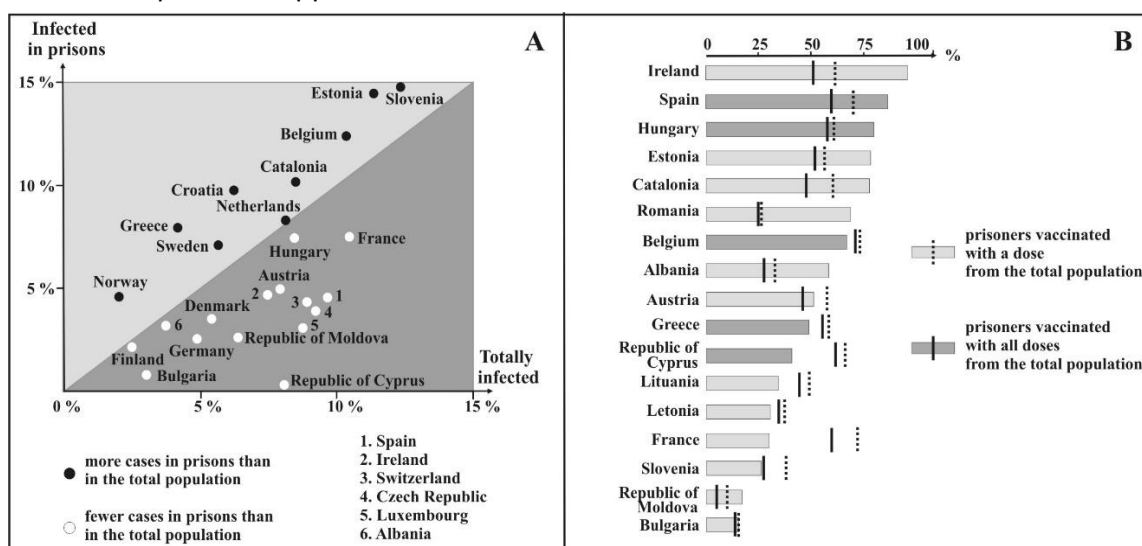


Figure 2. Percentage of Sars-CoV-2 infections (a) and share of vaccination (b) in Europe at the end of 2021, processed data according to the statistical data provided by www.github.com

The allocated funds were 15,085,84 thousand lei for goods and services purchased for the purpose of preventing and combating the spread of the infection, this value representing additional expenses for the protection of employed personnel and persons

deprived of liberty. According to the information on the ANP website, from the 48 units subordinated to the National Administration of Penitentiaries, a number of 31 penitentiary units received donations or sponsorships in the total amount of 177,233.31 lei, based on the contracts concluded with the sponsors, the object of the sponsorship contracts being represented by goods of the nature of sanitary materials and disinfectants necessary to combat Covid-19 (www.anp.gov.ro). At the same time, the National Administration of Penitentiaries received free of charge from the Ministry of Internal Affairs, through the General Inspectorate for Emergency Situations, goods to combat Covid-19 (respectively masks with FFP3 filter, masks with FFP2 filter, UF waterproof coveralls, visors, TP2 disinfectant, protective gloves), totalling 311,230.50 lei, these being distributed to the subordinated units (www.anp.gov.ro).

All prevention and combat activities were carried out under the leadership of the Technical-Medical Support Group, established at the level of the prison police, which managed difficult challenges, identified appropriate solutions, with a significant positive impact at the level of the prison population (www.anp.gov.ro). This group together with the penitentiary police confirmed, once again, the determination and professionalism in exercising the responsibilities ensured by the legislation in force. The efficiency of the adopted and respected measures was also proven by the fact that the first case of contamination in the case of the prison population was registered after 6 months, compared to the first confirmed case among the employed staff. Respiratory protection materials, namely masks and/or visors, biocidal substances were periodically distributed to persons deprived of their liberty, in order to maintain individual and common hygiene. In order to reduce for inter- and intra-institutional travel, new methods of communication were implemented, namely hearings through videoconference, and the connection with the family was ensured through telephone conversations and online communications. At the beginning of 2022, the National Administration of Penitentiaries also brings to the attention of the public opinion that it regarded and regards vaccination as an act of individual responsibility, with collective impact and as at the level of the units in the penitentiary police system, there have been permanent informational measures regarding the benefits of vaccination. Also, the information campaigns through the distribution of information materials, Radio-TV broadcasts through the internal studios of the penitentiaries, information sessions/discussions/debates included not only the dissemination of correct information regarding the vaccination against Covid-19, but, above all, testimonials of vaccinated people from the detention environment, who related their post-inoculation experience and emphasized the benefits of vaccination (www.anp.gov.ro).

This health crisis also triggered an economic crisis with social effects, characterized by the sharpening of the social vulnerabilities and the emergence of new ones, adapting all the public policies to the population's adaptation needs, to new living conditions. The current Coronavirus pandemic has highlighted the need for the EU to have a rapid reaction capacity and to have sets of measures that enable it to respond to serious health threats in a coordinated manner. Thus, towards the end of 2021, the EU Commission established the European Health Emergency Preparedness and Response Authority – HERA.

4. Conclusions

For the Romanian penitentiary system, the management of an epidemiological situation, due to an infectious-contagious disease with a high risk of transmission, represents a major public health problem. At the level of the prison population, coherent sets of preventive measures were frequently implemented, measures to reduce the mode of transmission of infectious-contagious diseases and were aimed at being correctly applied by all the component population of the prison world. The appearance of a new form of infectious aggression on the population has reminded, once again, that prisons are favourable environments for the development of infectious diseases.

Human security is frequently subjected to *threats without enemies*, identified in the specialized literature as *grey areas* or *problems without a passport*. These areas are seen as risks and vulnerabilities with several sources of origin. Pandemics and infectious diseases are a frequent cause of mortality in the world. For example, in the HIV/AIDS Strategy of the US State Department in 1995, infectious diseases are viewed as conditions with the potential to "initiate conflicts" and "determine how wars will end".

For the Romanian penitentiary system, the management of an epidemiological situation, due to an infectious-contagious disease with a high risk of transmission, represents a major public health problem. Coherent sets of preventive measures were frequently implemented at the level of the prison population. Also, measures were taken to reduce the mode of transmission of infectious-contagious diseases. Later, these measures were followed to be correctly applied by all the population of a penitentiary. Prisons are favourable environments for the development of infectious diseases. The emergence of a new form of infectious aggression highlighted this aspect of life.

At the level of the ANP institution, the realization of the guidelines for the design and implementation of the prevention plans in order to deal with the pandemic, aimed the following directions: protecting the health and well-being of detainees, custody staff, care staff etc.; reducing the risk of outbreaks; reducing the spread of the virus; risk assessment; proper management of risk management; collaboration with other institutions involved in solving problems in this category through joint planning. The pandemic was a valuable lesson for the entire system, exceptionally for the preparation of specific environments (Kinner et al., 2020).

During the Summit "*Building the Post-Pandemic World: The path to be more sustainable, resilient and safe society*", the NAP was presented as the institution that received a distinction, recognizing its institutional effort to protect life and ensure decent conditions in the Romanian penitentiary system, a remarkable institutional performance. This distinction was awarded by received from the *MediaUno Press Group*, the National Institute of Statistics and the Romanian Academy (reunited in the form of a partnership) and the jury was led by Diana Loreta Păun – presidential advisor, Department of the Public Health.

The pandemic represented a new beginning for the modern society, as well as for specific micro-societies. A reanalysis of the role of the medical function was required. Intelligence in the medical environment must provide the improvement of the ability to anticipate, prevent and manage the medical crisis. Attention must be directed to the epidemiological risk, infectious outbreaks and unconventional medical risks. The medical entity must take into account the estimation of needs. They must check their available resources, partnerships, collaborations, tradition and dominant institutional culture.

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