

Violence Against Women in Italy: Understanding the Recent Dynamics after the Impact of Istanbul Convention

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Abstract Reports of violence against women in Italy have increased significantly over the past decade, with a surge in 2019. The aim of this work is to understand the changes this phenomenon is having in Italy and whether these changes are related to the policies implemented by the Italian Government. For this purpose, we have applied the social network analysis to the historical series provided by ISTAT regarding reports of violence against women. The analysis, in the evolution of the phenomenon, highlights two different historical periods, characterized by different dynamics. The transition coincides with the impact of the application of the Istanbul Convention in Italy through the implementation of two anti-violence plans.

Keywords Violence against women, Women population dynamics, Social network analysis, Public policy impact

1. Introduction

To understand how the phenomenon of violence against women is continuously changing in Italy, it is necessary to reflect on the connection between changes in the attitude of the female population to disclose the situation of violence and the public policies adopted and implemented by the Ministry of gender equality. At the beginning of our work we asked ourselves: why did calls to 1522 (a public service, promoted by the Presidency of the Council of Ministers - Department of Equal Opportunities, activated in 2006 with the aim of combating the phenomenon of intra and extra-family violence) increase from 2013 to 2020, especially with a surge in 2019? What has impacted on the habits of the female population and on the way they use the anti-violence number? Certainly the increase from March 2020 to October 2020 can be attributed to the pandemic situation: women were forced to stay at home with their abuser and this increased stress, risk and violence. But what other more structural and long-term reasons impacted on the increase in calls? This article, using a Social Network analysis, analyses the changes in the use of the anti-violence public utility number 1522 from 2013 to 2020. The results highlight an increase in calls that, in Italy, can be contextualised in a series of public policies put in place to implement the principles of the Istanbul Convention (2011). The rest of the paper is organised in the following way. In the second section, we list the legislative context and the

public policies implemented to applied the principles and the legislative framework in the Italian context. In the third section, we introduce the statistical methodology applied to data collected by National Institute of Statistics. Then, we discuss the main results in the fourth section. Finally, the fifth section provide the discussion and conclusion of our study.

2. The legislative Framework

In outlining a legislative framework on violence against women, it is worth mentioning the Council of Europe Convention on preventing and fighting violence against women and domestic violence' (adopted in Istanbul on 11 May 2011 and ratified by Italy with law no. 77 of 27 June 2013). This is of particular relevance, indeed it plays a key role in the organisation of national policies on handling all forms of violence against women. The two main instruments to implement the Istanbul Convention in Italy have been two Anti-Violence Plans (2015-2017 and 2017-2020) of which the National Research Council is in charge of evaluating the interventions. The intervention strategy of the two Plans is primarily aimed at pursuing the objectives indicated in the Convention promoted by the Council of Europe on preventing and combating violence against women and domestic violence adopted in Istanbul on 11 May 2011 (known for this reason as the 'Istanbul Convention') and entered into force on 1 August 2014 following Italy's ratification (by Law No. 77 of 27 June 2013). This is the first legally binding international instrument that proposes a comprehensive and integrated legal framework to protect women against all forms of violence.

In order to promptly implement some of the measures

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provided for by the aforementioned Convention, during the session of the Council of Ministers of 8 August 2013, Law Decree No. 93 of 14 August 2013 was approved, containing "Urgent provisions on security and for combating gender-based violence, as well as on civil protection and the commissioning of provinces", containing, among other things, measures aimed at strengthening both the protection, including criminal protection, of women victims of violence and at preventing the phenomenon of gender-based violence. The measure, subsequently converted with amendments by Law no. 119 of 15 October 2013, updated and reshaped the instruments for preventing and suppressing gender-based violence, also domestic violence. In order to define a comprehensive intervention strategy, Article 5 of the same law provides for the adoption of an extraordinary Action Plan against sexual and gender-based violence. Moreover, in order to strengthen the relief and assistance structures for victims, it introduced a specific article (Art. 5 bis). The 'Extraordinary Action Plan against Sexual and Gender-based Violence' represents, therefore, the first attempt to make operational a system of public policies consistent with the principles laid down by the Istanbul Convention and supplementing, from the point of view of interventions, the criminal provisions contained in the above-mentioned law. The two-year Plan was adopted by Decree of the President of the Council of Ministers of 7 July 2015 and registered by the Court of Auditors on 25 August 2015. Subsequently, during the meeting of the Council of Ministers on 23 November 2017, also in order to give continuity and further development to the interventions implemented in the previous three-year period, the Government approved a new National Strategic Plan on Male Violence against Women 2017-2020, with a three-year duration. This document defines an intervention strategy characterised by a logic of partnership and integrated policies, providing for the accountability of all those who are called upon to implement it. The strategic lines of the new plan were drawn up by a special working group set up ad hoc in agreement with representatives of the central, regional and local administrations and the relevant associations, together with the major trade unions.

In line with the framework of the Istanbul Convention, the first anti-violence plan (2015-2017) represents the operational translation of the political awareness of the persistence and danger of male violence against women in Italy. Furthermore, it highlights the connection that exists between discrimination and violence in a social model where the construction of roles still corresponds to the real power relations between men and women. In particular, violence against women is considered as a violation of human rights

(as established for the first time in the European Union in 1992 by CEDAW Recommendation No. 195) as well as a form of discrimination that severely inhibits women's ability to enjoy rights and freedoms on an equal basis with men. In this regard, it is recalled that violence against women is a manifestation of the historical, cultural and social inequality between genders. This inequality takes the form of multiple forms of inequality and discrimination that affect women and their social relations in different contexts.

The plan therefore proposes a holistic and multilevel approach to gender-based violence, combining the necessary measures to punish perpetrators and support victims - not only to provide relief but also empowerment – aiming at changing collective conceptions of the role of women, still strongly anchored to traditional and stereotypical models, either symbolically and materially. From this framework, four levels of intervention are derived:

- Preventive, with the aim of promoting a change in attitudes, gender roles and stereotypes that make male violence against women acceptable.
- Protective, for the implementation of measures that protect and support women and their daughters in the individual project of emancipation from the state of vulnerability that violence determines.
- Punitive, for the effective prosecution of crimes committed in the context of gender-based violence.
- Assistance and Promotion to collect properly data and to develop an evaluating and monitoring system to study the phenomenon of violence against women.

The second tool, the Strategic Plan 2017-20207 proposes the four strategic axes of the Istanbul Convention, already mentioned above. The Operational Plan 2017-2020 further defined the priorities for action, the target population and the cross-sectoral nature of the interventions, particularly in relation to the strategic commitment of the various ministries in their areas of competence. The strategic commitment of the various ministries in their areas of competence also aims at approaching the phenomenon of violence against women in a cross-sectoral and integrated way, thus acting through the definition of multi-level policies. In particular, it also adds: a transversal Axis of support for the implementation of integrated policies, the construction of an integrated data collection system and the and monitoring and evaluation activities. In addition, throughout the Plan there is also a specific focus – absent in the previous plan - that, transversal to the different axes, identifies migrant women, refugees and asylum seekers as the target of intervention.

To better focus on our analysis it's important to deeply describe some critical issue and related priorities to achieve of both plans:

Critical issues	Priorities
The existence of multiple discrimination and intersectionality based on race/ethnicity, gender identity, disability status, sexual orientation, religious belief, age	Strengthening measures to prevent and combat violence against women who are or may be victims of intersectional discrimination, such as women with disabilities, women belonging to minorities (ethnic and/or religious), women from Roma, Sinti and Camino communities, migrant and

	asylum-seeking women, women belonging to the LGBTI community, elderly women, prostituted women and women who abuse drugs.
Underreporting of violence against women, especially in civil courts, and low conviction rates, resulting in impunity for perpetrators of violence, also due to the practice of minimising and justifying perpetrators	Ensuring fundamental rights, equality and the avoidance of all forms of discrimination by overcoming cultural and structural barriers to violence
The persistence of harmful cultural practices and forms of coercion involving women and girls (genital mutilation, trafficking, early or forced marriages, early motherhood, etc.).	
Lack of common guidelines for training of staff in anti-violence centres, shelters and batterers' centres and certification of their skills	Structuring appropriate training courses for public and private social workers involved in the process of leaving violence behind (e.g. from police authorities to hot spots or from social workers/psychologists to shelters).
Misrepresentation of women and violence against women in the media and social networks and increasing prevalence of violence against women on these communication channels (abuse, harassment, threats, discrimination, stalking, sexting, revenge porn)	
Lack of systematic awareness-raising campaigns against violence against women and lack of evaluation of impact and effectiveness	Raising awareness in the private communication and media sector about the role of stereotypes and sexism in male violence against women
Insufficient measures to ensure that the media (advertising, press, social networks, television broadcasting, etc.) stop any practice that may constitute discrimination against women	
Persistence of deep-rooted stereotypes and prejudices concerning the role of women in the family and in society, which perpetuate the opportunity gap between men and women in every sphere of life	Raising the level of public awareness about the structural roots, causes and consequences of male violence against women.
The lack of studies on the structural causes of gender-based violence against women and on the causes of violent behaviour	
Lack of an integrated information system available to women about the different types of support services available and the legal measures they may require	More widespread dissemination of information on support services and legal measures available to victims of domestic violence and other forms of violence against women, so as to facilitate access to different forms of support for women victims of violence including the most vulnerable groups (e.g., refugees, asylum seekers, disabled, elderly, drug addicts).
Lack of effective territorial planning, regulation and coordination at national level of the centres for battered men, and therefore of homogeneous guidelines on the purpose, approach, minimum operating requirements, methods of collaboration with the other subjects of the network and connection with the judiciary, mechanisms for monitoring and evaluating effectiveness.	Implementation with programmes and guidelines for perpetrators of violence in the range of instruments available to institutions in response to violence against women.
poor coordination and lack of an integrated intervention approach between specialised and general support and protection services	Development of a coordinated multi-agency response among support and protection services for victims of violence.
Lack of recognition of the seriousness and extent of witnessing violence and its consequences, resulting in inadequate protection and support systems for children who witness violence and in inadequate systems for punishing perpetrators.	Implementation of actions to promote the protection and support of children who witness violence.
The lack of measures aimed at women's empowerment (especially in terms of work, housing and, more generally, economic autonomy), and a logic of intervention that is primarily welfare and emergency	Implementation of effective actions for economic and financial empowerment, employment and housing autonomy paths.
The lack of a comprehensive and harmonised framework, including clear procedures, guidelines and standards, for the identification and assistance of persons with special needs and vulnerabilities, especially refugee and asylum-seeking women and girls	Establishment of sound procedures to protect and support girls and women migrants, refugees and asylum seekers.
High recidivism rate of perpetrators of violence	Mitigating the risk for women in situations of immediate danger
Weaknesses in the data collection and processing system, both from institutional (judicial, health, social) and non-institutional sources, to improve the knowledge of the phenomenon and to measure the economic impact of violence against women: incompleteness of indicators, territorial inhomogeneity in the survey system, poor integration of data sources, unsystematic surveys	Ensure continuous policies for the collection and processing of data and the effective monitoring of the implementation and evaluation of measures taken to prevent and combat violence against women.
Lack of a monitoring and evaluation system for policies against gender-based violence	

According to these critical issues and related priorities, a set of actions have been planned, for example:

- the construction of an integrated information system - in line with the aim of providing for the collection of data on the phenomenon, also by coordinating the already existing databases. The Plan envisages the creation of a national database on the phenomenon of violence against women for the study of the phenomenon of gender-based violence and for the consequent definition of actions and intervention policies.
- raising the awareness of media operators for communication and information. This may include commercial respectful of gender representation and, in particular, of the female figure also through the adoption of self-regulatory codes by the operators and through the involvement of all those working in the various areas of communication.
- to identify homogeneous modes of intervention at national level, integrating the most effective and appropriate care for women who have suffered violence by men.
- to intervene by identifying coordinated actions between all the public and private figures involved and set up by territorial networks - mainly aimed at strengthening the measures for building a support relationship in favour of victims and the services dedicated to them.

3. Methodology

The social network analysis (SNA) is one of the important quantitative techniques in the process of effective decision-making process that uses graphical approach to represent relationships.

Network analysis provides the capacity to estimate complex patterns of relationships and the network structure can be analysed to reveal core features of the network.

For analytical purposes, a SNA can be seen as a graph and the aim is to provide direct mapping of ties showing their clustering as well as scatterness. In a graph a variable can be a vertex or a node. A tie between two node indicates the presence of the relationship connecting them. Absence of a tie indicates absence of relationship. The size of the lines (edges) vary to reflect the varying strength of relationship between the variables.

Networks can be described as being directed (i.e. all edges are directed) or undirected (i.e. no edges are directed). Directed networks can represent causal structures. The network visually represents the pattern of relationships between variables and a network can be estimated using common statistical parameters that quantify relationships, e.g. correlations, covariances, partial correlations, regression coefficients, odds ratios, factor loadings (Scott, 1988).

The aim of this work is to investigate if the Istanbul convention and its ratification in Italy by the law n. 77

(Ratifica ed esecuzione della Convenzione del Consiglio d'Europa sulla prevenzione e la lotta contro la violenza nei confronti delle donne e la violenza domestica, fatta a Istanbul l'11 maggio 2011) and the actions and priorities implemented by the two anti-violence plans in favour of women victims of violence, push more and more women to break the silence and denounce the abuses they are suffering. We wonder if there is any connection between applied policies and priorities to the self determination of women in terms of increase of help and support requests.

SNA is used to analyse the dynamics of violence against women in Italy for the period 2013-2020. At this aim the Horizontal Visibility Graph (HVG) algorithm is necessary (Bezsudnov et al., 2014). The idea is to transform a time series of N observations into a Network of N nodes on which the SNA can be applied to understand and evaluate the changes in the phenomenon under consideration. The HVG is a geometric criterion for mapping an ordered series, for instance a temporal series of N real valued data ($\{x(t)\} t \in [1; N]$) into a graph of N nodes, in particular two nodes j and k are linked by an undirected edge if the associated data $x(j)$ and $x(k)$ have horizontal visibility and so every intermediate datum $x(i)$ satisfies the relationship:

$$x(i) < \inf\{x(j), x(k)\}, \forall i \in [j, k]$$

Following the algorithm, the numeric values of time series (fig. 1a) are the network nodes and are first represented in a bar chart (fig. 1b). The links are drawn considering the visibility criteria (fig. 1c). Once the nodes and the links determined describe univocally the undirected network graph (fig. 1d).

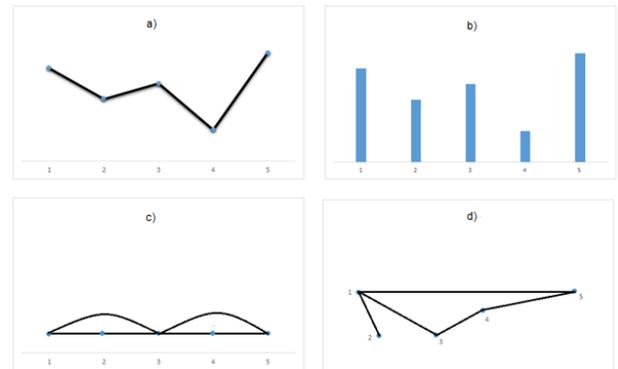


Figure 1. Steps of HVG algorithm

Some practical information can be derived applying the HVG algorithm (Luque et al., 2009): if the distribution of nodal connection $N(h)$ follows an exponential function of parameter λ

$$N(h) \approx e^{-\lambda h}$$

we can decide if our model evolves in stable or complex behaviour or in a chaotic state. In particular, if

- $\lambda < \lambda_c$ the system is characterized by chaotic dynamic.
- values of λ round λ_c the system shows an edge of chaos.
- $\lambda > \lambda_c$ the system is stable and predictable.

where $\lambda_c = \ln(3/2)$, is the exponent of the degree

distribution for null model.

4. Results

In this work, we used the data provided by National Institute of Statistics ISTAT on telephone calls or messages received to the public utility number 1522 in the period 2013-2020 considering the months between March and October to investigate the effects that various legislative measures and the given support to the anti-violence centres have arisen or are rising over women who are victims of violence. The HVG algorithm is used to transform the time series considered into a network then studied applying SNA.

The statistical distribution of the nodal connection of network, obtained with HVG algorithm, allowed us to verify the complexity of the phenomena considered. The figure 2 showed that nodal distribution follows an exponential distribution, highlighting the complexity of dynamics of the system considered. The value of exponent of nodal distribution ($\lambda=0.809$) is higher than critical value ($\lambda_c=0.405$).

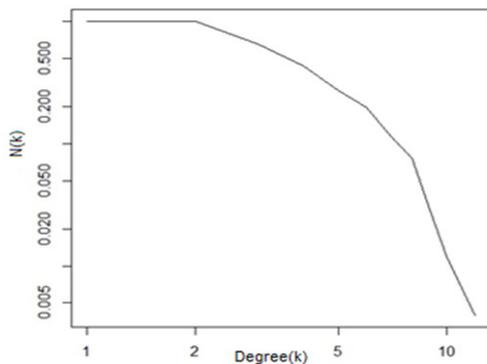


Figure 2. Degree distribution for violence against women

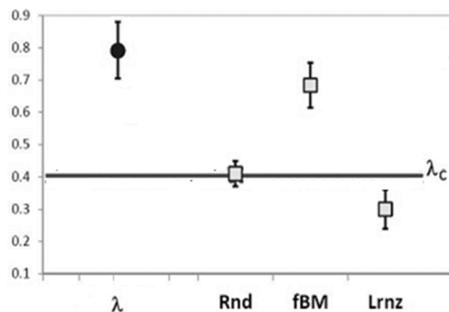


Figure 3. Comparison of degree exponents with other models

For a better analysis of dynamics of our distribution, we computed the exponent of nodal distribution ($\lambda=0.809$) and compared with critical value and the exponent of well-known series: a random series (RS), a time series of fractal Brownian motion (fBm) (Chow, 2011) with Hurst exponent equal to 0.5 and a series derived by chaotic Lorenz map (LM) (Keller et al., 2001). These series were carried out using Stat, Somebm and Gglorenz packages of the R programming environment respectively. The generation of these networks was repeated five times and then results

averaged. In figure 3 is represented a comparison of exponential values with λ_c . The results highlight that λ is higher than λ_c and is quite close to exponential value of fBm characterized by a stable behavior. The findings highlight that system is characterized by dynamics of a complex system but typically does not present chaotic traits and this implies that evolution is linked to phenomena that influence its performance.

In figure 4 is showed the obtained network. The algorithm identifies, with Q value equal to 0.875, the division of network in two principal parts. These groups represent communities of individuals with the same social condition dynamics. Therefore, in the time horizon 2013-2020, two diverse historical periods, characterized by different dynamics, were found.

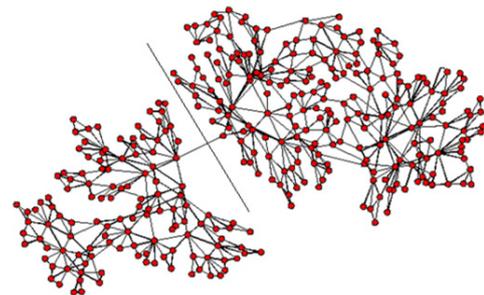


Figure 4. Social network graph

For an accurate study and confirm a change in trend of time series highlighted with SNA, we used Lumsdaine and Papell test (1997) whose aim is to detect the presence of structural breaks in a time series considered. Figure 5 shows the results obtained by test, highlighting that a transition point occurred to the year 2017. The transition coincides with the impact of the Istanbul Convention application in Italy by two Anti-violence Plans especially by the implementation of:

- three public notices implemented and managed directly by the DPO which involved a total of 353 beneficiaries;
- the transfer of financial allocations to the Regions, with the task of implementing the procedures to implement in the territories of their competence the planned interventions through the activation of local actors engaged in various ways in policies to prevent and combat violence against women;
- a set of communications campaigns of Pari Opportunit  Department, such as #Iapartitaditutti.

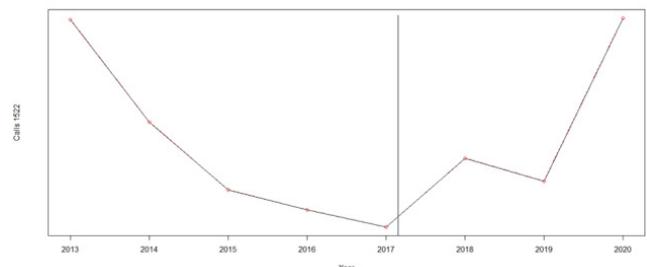


Figure 5. Trend of time series

Hence, the break confirms the presence of changes in the dynamics of the system under study. The three public notices published by the DPO are the concrete action taken by the government to implement:

- Announcement for the strengthening of anti-violence centres and assistance services for women victims of violence and their children, and for the development of a network of women's centres. (a) Notice for the strengthening of anti-violence centres and support services for women victims of violence and their children and for the strengthening of the network of territorial services, 8 March 2016;
- Public notice for the implementation of initiatives in schools for the implementation of point 5.2 of the Extraordinary action plan against sexual and gender-based violence, 11 November 2016;
- Public notice for the funding of projects aimed at preventing and combating violence against women, in women also in implementation of the Istanbul Convention, 20 July 2017. In this notice the call was addressed to projects for promoting local entertainment, communication and awareness-raising aimed to prevent gender-based violence, through communication campaigns, education, cultural, artistic and sporting activities to promote changes in socio-cultural behavior, in order to eliminate prejudices, customs, traditions and any other practices based on stereotyped models of women's and men's roles.

If the impact of public policies is interpreted alongside the massive communication campaigns and the continuous and relentless work of anti-violence centres and the third sector specialized in raising awareness of the phenomenon, one can try to find links with an increase in phone calls during the period of greatest activity and planning of interventions aimed at combating all forms of violence against women.

5. Conclusions

This paper aimed at investigating the connection between changes in the attitude of the female population to disclose the situation of violence and the public policies adopted and implemented by the Ministry of gender equality. Furthermore, the evolution of the phenomenon of violence against women in Italy has been analysed. The real nature of phenomenon is measured with the use of the HVG algorithm, which highlighted

the complexity of the problem characterized by an exponential nodal distribution (degree distribution). From an analytical point of view, this information should push researchers and professionals to abandon performance measurement systems anchored to past operational values and criteria in favour of non-linear indices to measure the intensity of the phenomenon. Furthermore, the complexity is certainly due to some relevant political choices. The results obtained through SNA brought us to discover a structure for phenomenon composed by two communities (modules)

corresponding to major changes in the basic dynamics of the system in the years 1016/2017. The transition coincides with the impact of the Istanbul Convention application in Italy by two Anti-violence Plans.

In fact, these were the main tools by which, in a national and social level, the actions had an impact on women's awareness. The change of attitudes can be measured through the implementation of the data systematisation of The National Institute of Statistics and the Department for Equal Opportunities of the Presidency of the Council of Ministers that made available an integrated information framework on violence against women in Italy.

The aim is to provide quality information and indicators that allow an overall view of this phenomenon, through the integration of data from various sources such as ISTAT, the Department for Equal Opportunities, Ministries, Regions, Anti-Violence Centres, Shelter Homes and other services such as the public utility number 1522. Documents on Italian and European policies against violence, prevention, training activities in schools and among operators, as well as statistical and analytical reports are made available. The system derives from the National Plan against Violence against Women and wants to be a privileged observatory to allow government bodies and all public and private actors involved in combating gender-based violence to monitor the different aspects of the phenomenon and fight it with adequate means in order to achieve the objectives of the Istanbul Convention. All these measures implemented between 2017 and 2020 have led to a concrete change in the perception of the situation of violence and in fact the campaigns against violence against women and the re-launch of 1522 have triggered changes in the use of the public service number. The increase in awareness triggered by the awareness-raising campaigns and the actions taken with funding to support anti-violence centres, shelters and all those projects that have been financed in various ways by public funding from the Equal Opportunities Department, have generated a humus for social change that can be seen in the increases in the use of 1522 since the beginning of the year. Of course, if we look at 2020 we realise that phone calls from the end of March to October had an increasing increase, due to the lock down which meant for many women the beginning of a period of forceful violence. #Stayinghome meant sharing daily space with the abuser and consequently led to an increase of violent situations and calls registered to 1522. However, using the model presented beyond covid-19, it can be argued that the impact of the policies and the implementation of the Istanbul Convention has generated a change in the attitudes of women who are more likely to contact 1522, the national anti-violence number.

The main directions that must be taken to combat violence against women are and remain those identified in the Istanbul Convention on the prevention and protection of victims. To these activities must always be added the repressive action against the guilty. The real difficulty is to consider these aspects at the same time. We can do this by building a complex response through an integrated approach,

starting from the awareness that stricter sanctions already exist and unfortunately are not enough, that it is not enough to “shout emergency”. It is essential to break down, through education, knowledge and training, stereotypes and prejudices rooted and still too widespread in our society.

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