UNICAMILLUS

UniCamillus Global Health Journal

no. 2 | issue 1 | pages 76 | June 2022

tab edizioni

Editor-in-Chief: Gian Stefano Spoto
Scientific Editors: Alessandro Boccanelli e Laura Elena Pacifici Noja
Registration no.: 103/2021, Ordinary Court of Rome
2 issues per year
ISSN print: 2785-3713
ISBN print: 978-88-9295-550-9
ISSN open access: 2785-4329
ISBN open access: 978-88-9295-551-6
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No. 2 | issue 1 | 2022
First edition June 2022

tab edizioni

viale Manzoni 24/c
00185 Roma
www.tabedizioni.it

UniCamillus Global Health Journal

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and Laura Elena Pacifici Noja

no. 2 | issue 1 | June 2022

Table of Contents

Perspectives

Rethinking Policies to Manage Immigration in Europe

by Francesco Aureli*

Abstract
Migration and integration are key issues in high-income countries. The need to develop new policies that take into account the many variables involved is a priority in Europe and particularly in Italy which has always represented a gateway to the old continent for migratory flows. An eye on the future is needed to rethink the old rules and design new policies.

Keywords
policies, migration, Europe, Italy, immigration, migrant, integration.

Last summer, in addition to the Afghan crisis, another one exploded at an international level, which saw Poland and Lithuania accusing the Belarusian government of pushing migrants from Syria and Afghanistan, but also from African countries such as the Democratic Republic of the Congo (DRC) and Cameroon, to go beyond the borders of the European Union[1,2,3]. On this occasion EU countries have erected barriers, increased border patrols, pushed back and restricted access to humanitarian organizations at the borders with Belarus. We witnessed once more how the mental and physical health of migrants and asylum seekers is often at a major risk. Victims of violence on both borders, trapped in inhumane conditions, some died, while other reported different mental and physical traumas[4,5].

Today with this new war between Russia and Ukraine, millions of refugees are heading to Poland, Romania and many other countries to escape the war. Before the war there were about 250,000 Ukrainians only in Italy and it is expected that many more than the almost 100 thousand who already arrived in this country will try to reach them, especially if family members[6].

The European Union and the countries directly involved are called to rapidly organize effective reception and, most of all, integration systems for this new humanitarian emergency. This is also happening against the backdrop of a renewed sensitivity of European and Western public opinions in general, and this could be an opportunity to propose a

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change of approach, because these public opinions were struck by the tragedy that Afghans are experiencing, by what has happened on the border between Belarus and Poland and, today, by the tragic outflow of Ukrainian refugees.

However, it is necessary to dwell on a fact. Migrants fleeing persecution, wars, natural disasters, hunger and poverty, especially in the last decade, have arrived in Europe mainly by sea. The flows are probably destined to remain important, as well as the statistics of the dead and missing, and unless reforms at the European level are implemented, it will not be possible to treat the phenomenon in a structural and not perennially emergency form.

These are reforms which, in addition to allowing lives to be saved, could prove to be less expensive than what was spent in the last decades to tackle the migratory phenomenon in such an emergency manner. Important innovations can be brought by Italy and other Mediterranean countries, which could allow us to further increase our negotiating strength with origin and transit countries.

Today a foreigner can immigrate and then remain legally in European countries practically only if upon arrival he applies for Asylum, and subsequently obtains a Refugee Status. However, net of the recent humanitarian crises mentioned above, since 2011 we continue to note that 80/85% of migrants who arrive every year at the Mediterranean borders by sea are not entitled to obtain the refugee status. They are the so-called economic migrants. Furthermore, to remain in Italy as an example, demographers foresee a decrease in the population by 2050 equal to about 10% less than the actual inhabitants. Moreover, the Italians who emigrate every year are between 100,000 and 200,000, and the pension system together with the economy are bound to come under increasing pressure[7,8].

It, therefore, appears necessary to adopt policies that encourage births and prevent emigration. But we can also plan to review the management of the migratory phenomenon, modifying our approach. Also because from an health point of view it appears urgent to intervene.

Migrants suffer more than other groups from the obstacles related to health determinants and universal health coverage, both as IDPs and in transit or hosting countries if reception and integration systems are not well prepared. Addressing migrant and refugee health is complex, of course, and conditions surrounding the migration process can also increase the vulnerability to ill health. Thus, it is critical to address both the factors influencing migrant access to health systems as well as health-related goals and targets outlined in the 2030 Sustainable Development Agenda to ensure "no one is left behind"[9,10]. Tackling mental health and the well-being issues of immigrants is vital to guarantee human security and the well-being of the incoming and hosting communities. We must focus on how to change approach from a policy point of view and facilitate the creation of a different environment that may strengthen regular immigration in Europe and therefore guarantee better and more effective integration paths for immigrants, ensuring the health and well-being of both migrants and hosting communities.

It could, then, be wise to take into account that for years, now, data from Inter-

national Agencies have told us that regular immigrants in Europe contribute 70% to employment flexibility, and that the continent needs 3 million immigrant workers every year[11]. The Covid-19 pandemic has highlighted how immigrant workers make up for those jobs that the natives no longer want to do (e.g. collecting food products in the agricultural field, housework and wellbeing support, construction). Official statistics tell us that foreigners regularly present in Italy, for example, work legally and contribute about 9% of gross domestic product (GDP), with a positive annual surplus for the state coffers which in the last 5 years has reached up to 4 billion euros, depending on the year[12].

These are very significant figures, from which we could start to reimagine a change of direction in our migration policy: reviewing the existing legislation to allow migrants to enter on a regular basis not only to apply for Refugee Status, but, also, to legally work in Europe.

To take the Italian case as a possible example from where to start, it would be sufficient to review the actual legislation, reopening the entry quotas for work reasons, having perhaps, identified in advance, with the business and trade associations and with the local authorities, the economic sectors and geographical areas where there is the greatest need for work and population growth in our country. This would also avoid having thousands of illegal immigrants who work illegally and are channelled towards deprivation and marginalization, rather than being inserted into reception and integration paths for the benefit of all, and would allow the organization of a structural reception and integration system, a system that could become weighted and effective, being able to predict numbers and places of entry each year.

Furthermore, this objective would also be possible in consideration of the fact that the countries of origin are interested, more than anything else, in the remittances that arrive from their compatriots who reside and work regularly abroad. In 2020, global remittances sent to their country by migrants working abroad amounted to 470 billion dollars. And at least another 40% is estimated to be untraceable[13,14]. While public development aid and private foreign investments in developing countries were respectively 161 and 229 billion dollars, for a total of 390 billion dollars (World Bank data). In this context, it does not appear unrealistic to imagine that the countries of origin themselves would be interested in entering into agreements to limit and control the departures from their countries, in the face of greater guarantees on the possibility, for those who leave, to work and reside regularly in the country of destination, with prospects of integrating and bringing added value to the general health and wellbeing, to one's life, to the GDP of the countries of origin and to the economy of the hosting countries.

Thanks to a greater opening of the working-quota system, the issuance of entry visas could be increased in a weighted form, pre-departure training modules on site could be provided, especially for the most fragile categories, and coordinated repatriation from European countries to the countries of origin by the IOM (International Organization for Migration) could be agreed in an orderly and safe manner.

A revision of the current legislation on the management of the phenomenon would therefore bring benefits in demographic, employment, economic terms and, thanks to a more efficient organization of arrivals, also in terms of health and wellbeing. It is a great opportunity for which Europe is ready.

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From Pandemic to Conflict(s)

Global Health Under Attack

by Renato Mannheimer, Laura Dryjanska, Ugo G. Pacifici Noja, Falu Rami, Giorgio Pacifici*

Abstract
This article aims at critically addressing – from a sociological and psychological perspective – some data (and opinions) related to the impact of Covid-19 pandemic in Western countries. These effects, which were completely negative for the entire European population, have been particularly painful for some social groups, causing many problems related to global health that are far from being absorbed in the short term. While a period of "relief" and reintroduction to normality would have been necessary, the international community has been hit by another serious trauma: the Russian-Ukrainian conflict, which resulted in v ery serious effects on global health as well.

Keywords
Covid-19, European population, conflicts, social groups.

1. Covid: Which Destiny? Global Data to Date: Cautions and Approximations

Until April 21, 2022, according to public data shown by international organizations, people infected by the Covid-19 virus would have been 507,390,109; the dead ones 6,234,286; the cured ones 459,729,315.

It is therefore the most serious modern pandemic so far recorded after the so called "Spanish" flu pandemic of the years following the First World War. However, these data must be observed with great caution since for several reasons they can only be considered indicative.

Reasons of internal politics, for instance. The People's Republic of China, after a few months from the beginning of the pandemic, decided to stop providing data on infections, healings and deaths. Other countries have provided data that cannot be considered reliable for internal political reasons as well. The difficulties of some countries in recording pandemic data, especially in non-urban areas of certain African, Asian, and Latin American countries, are well known. Indeed, there has been a substantial diversity in the

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classification of Covid-19 as the leading cause of death, by individual countries. The same substantial diversity can be observed within some countries when local health authorities have established the classification criteria.

2. The Divides Crossing the Social Areas

The waves of the pandemic that have followed one another so far have brought with them (or, in some cases, have deepened) certain rifts in the social body in almost all the European countries.

Let's give a thorough look.

3. Young – Elderly people

This divide represents the most important one. Many young people, in all European countries, have been persuaded that Covid was an "old man's disease".

When interviewed, in most of the cases they always have said: "Covid? That's the disease of the old people". In this regard it has to be considered that a good part of the European media has reinforced their belief thus leading to three consequences.

First. Many young people have neglected the standard precautions prescribed by health and administrative authorities. This mostly happened during major events (concerts, shows, raves) but also in school and after school meetings and with friends (outings, parties).

Second. Many young people seem to be totally unprepared for the possibility of new pandemics or the resumption of Covid.

Third. A good part of intergenerational solidarity has represented up to now one of the strong glues of the social body[1]. As a result of these and other reasons, however, a certain intolerance towards the elderly has emerged in the context of social media and television, in some European countries more than in others. The consequence has been a blaming attitude, which has led to proposals for ghettoization such as: "Why this general imprisonment to protect 'them'?", "Could not restrictive measures be established only for them while we young people continue our normal life?".

The danger of this fracture has also been noticed by the European Union which created a special project "Generations against isolation and Covid" aiming to unite generations that have diverged from each other.

4. Affluent – Poor People

The gap between affluent and poor people has created a double divide in the collective culture.

There is no doubt that the difference between the different classes influenced how they managed to deal with the effects of the pandemic affecting their respective economic conditions, and it should be added that this is more evident in certain types of consumption.

The measures deliberated in many nations to help the social groups most affected by the crisis (including the so-called "ristori" decrees in Italy) have only partially succeeded in reducing the devastating effects of the phenomenon. While in many cases there has been a progressive impoverishment, in others the situation has remained fairly stable and in a few cases there has even been an "enrichment" with the consequence that the inequalities of economic resources – and therefore of lifestyles – have definitely increased. Furthermore, this "objective" gap has taken on a more "subjective" value since it is associated with the perception of a growing

distance between those who can afford health care and those who cannot, between those who can recover and those who cannot, between the *haves* and the *have-nots* of our time.

This vision should be further investigated to highlight the link between some health determinants and the strongly negative attitude towards pandemic prevention through vaccine and virus treatment[2]. The idea that Covid-19 essentially affected "the poor" has found a partial confirmation in pandemic trends in some less wealthy areas such as Latin America or the Indian subcontinent.

But the most serious cost of the pandemic – in terms of loss of life in absolute values – has so far been paid by Europe and the United States.

Even If we consider the losses in terms of percentage of the population, among the most affected, immediately after some Latin American countries such as Brazil and Peru, we find European countries such as Hungary, the Czech Republic and Bulgaria[3].

5. Cultural Divide

What everyone assists to is that in the course of the pandemic a real and deep cultural divide has been created that is also practical, as in the case of the one between those who own the technological tools (and know how to use them) and those who do not have them (or do not know how to use them proficiently). Although the measures of isolation and containment have affected everyone, it was the poorest groups who suffered the most, especially as regards social relations, economics and employment.

Only the ones who had a minimum of technological knowledge were able to attend webinars, listen to online conferences and concerts or make virtual visits to museums, experiences that only the richest groups could afford. only the ability to access the Internet or e-mail has allowed some groups to maintain contact with their world and overcome confinement.

Even more relevant were the consequences of the digital divide at work and in the economy.

While the privileged with mental agility, competence and economic means to use technology could evidently switch to smart working, with much greater effectiveness and productivity, or benefit from distance learning in school, the "others" found themselves doubly penalized under all points of view.

6. Population – Health Authorities

In many countries, the gap among population/citizens/administrators on the one hand and administration/government/health authorities on the other has deepened.

The reasons can be sought in the many uncertainties and consequent differences of opinion within the medical and administrative class (on the origin of the virus and its possible treatments, on the adoption of preventive measures such as physical and social distancing or the use of gloves and masks, on the effectiveness of different vaccines and vaccination strategies)[4].

Perhaps this is why the authorities that handled the pandemic in its early stages adopted health strategies for which they were held accountable (even if their responsibility was not theirs alone) and which were not fully accepted by the public.

But whatever the reasons, the deepening of this gap has sparked anti-government

protests. Regardless of their validity, these protests had as a common basis the unease for social and economic situations and the tendency to "take advantage" of every occasion, more or less contingent, to express it.

The phenomenon of protests by anti-Covid skeptics against government initiatives started in France with the demonstrations of the so-called gilets jaunes and multiplied in Germany, Italy, the Netherlands, Poland, Romania and Spain[5]).

While it is true that the ultra-right managed to hegemonize much of these protests, it would still be too easy to label them as mere right-wing demonstrations.

On the contrary, they represented rather the renewal of a form of intolerance, an "anarchist" intolerance that has always been present in many European countries (and sometimes even in the United States of America) with respect to any form of standardization by the "authority". These anti-Covid measures (lockdowns, mandatory vaccinations for health care workers, etc.) have sometimes been perceived by the masses as highly restrictive of personal freedom and protests have often ended up taking a "conspiratorial" turn.

This conspiracy perspective was ready to see in Covid-19 the perfect opportunity for the government to implement initiatives designed with the sole intent of imposing unnecessary regulations. In other cases it was also seen as a way to bind the will of citizens, in particular with the mandatory need for the so-called "Green pass". Even worse was the theory of an international machination conceived and carried out by ultra-powerful and evil groups.

For many conspiracists, Soros was the ultimate evil *par excellence*. In this case, t he confluence of an antisemitic component rationally unrelated to the pandemic problem, shows how many of these eventscan be traced back to the "extra-political" sphere, rather than to policy-specific sectors.

It is reasonable to predict that all these divides will not fail to bring consequences in the global health of European society in the near future as well.

7. The Impact of the Covid-19 Pandemic on Mental Health

The Covid-19 pandemic has had severe consequences on mental health of populations across the globe. From the early stages of the pandemic, there has been a dire need for counseling and psychotherapy related to the conditions of lockdown, resulting in isolation, loneliness, and lack of social connectedness, as well as dealing with fear of death and grief after losing loved ones due to the disease. Since the beginning of the pandemic, psychologists have also provided assistance to healthcare personnel and other essential workers who have been reporting high levels of stress, strain, and burnout. In the United States, among 20,000 healthcare workers surveyed between May and October 2020, 43% were suffering from work overload, 38% reported anxiety and depression, and 49% felt burned out[6]. Similar impact on mental health has been reported in other countries, for example in Spain[7] and in Italy[8].

General population has also suffered mental health consequences due to the Covid-19 pandemic. According to the Centers for Disease Control and Prevention data[9], adults in the United States have reported anxiety and depression at rates about 4 times higher between April 2020 and August

2021 than the rates reported in 2019. Asian Americans, young adults, males, and parents with children at home seemed to be impacted even more than other subgroups. The pandemic has also resulted in much higher levels of stress compared with the previous years. Annually, the American Psychological Association conducts the "Stress in America" survey. According to the latest data, the effects of the Covid-19 related stress consist of multiple daily struggles, unhealthy behavior changes, poor decision-making, and a general sense of uncertainty. 63% of participants in the survey reported feeling stressed due to uncertainty about what the next few months would be like, and 49% believed that the Covid-19 pandemic has made planning their future seem impossible[10].

In order to understand the consequences of the Covid-19 pandemic on mental health, Boden and colleagues[11] have identified and classified the pandemic stressors, including exposure to the virus, media, and death. Firstly, anxiety and distress can easily result from the threat of being infected with the Covid-19 due to physical exposure to an individual who was or feared to be infected. Secondly, media exposure has been known to increase the perception of threats, loss and deprivation, according to Garfin and colleagues[12]. Thirdly, witnessing or receiving news about the death of a family member, friends, colleagues, or patients increases the risks of depression, traumatic stress and complicated grief. According to Wallace and colleagues[13] (2020), coping with the death and the dying condition has become more challenging during the pandemic due to their suddenness and unexpectedness but also because of difficulties in communicating prior to death and limitations to social support and mourning rituals.

So where are we today, considering the psychological impact of the Covid-19 pandemic? A growing body of research has been dedicated to the topic of vaccination, especially in terms of vaccine hesitancy, misinformation, conspiracy theories, or even using psychological tools to help patients overcome their injection fear. On the other hand, organizational psychology has been researching and identifying best practices for workers' wellbeing, strategies to overcome and prevent burnout and stress, and support mental health of employees in general, while assisting organizations in understanding how to navigate change with agility and flexibility. Social psychologists have emphasized how the Covid-19 pandemic brought up even more inequalities in our societies. For example, it has been found that couples were falling back into traditional gender roles when managing responsibilities during the pandemic[14]. In fact, according to the International Labour Organization[15], on a world scale, women's employment dropped by 4.2% between 2019 and 2020, compared with 3% for men. Furthermore, developmental psychologists who focus on children and adolescents, have also noted severe mental health consequences of the Covid-19 pandemic. Minors have been facing trauma because of the loss of family members or/and caregivers, as well as daily anxiety about the virus, changes in their home environment, remote learning, unpredictable routines, and health concerns[16].

8. Post-pandemic Forecasts

The post-Covid society cannot be prefigured from an exclusively sociological point of view precisely because it is a reticular society. A more comprehensive

and interdisciplinary analysis of the entire network is needed, with both a political contribution and a contribution from social psychology. Thus, some open questions remain.

The transformations that have taken place will only be temporary or will they permanently mark our society?

What will be the impact on global health of the post-Covid-19 era?

Will the long crisis create new opportunities?

Does t he growing fear of authoritarianism have its own rational justification?

Today, only a few questions can be answered by provisional and fragmentary responses.

As for the "new normal", according to Adli Najam, a Pakistani intellectual who teaches at the Pardee School of Global Studies at Boston University, there will never be a return to the past.

Ahmad Bhat, of the European Respiratory Society – ERS, believes that the habits acquired during the long period of crisis will be maintained.

It is reasonable indeed to assume that many of the innovations related to "smart working" (e.g. remote meetings), thanks their practicality, economy and effectiveness, will be maintained and become part of current practice.

The effects of the pandemic on the Global Health of European society are very articulated and affect the research, the health care organization, and the distribution of medical and nursing staff.

9. Research

Significant resources from Foundations and public-private partnerships by Covid-19 are being studied.

Funds that under different circumstances could have been employed to medical and biological research in other areas.

10. Healthcare Organization

Millions of European s had their health calendar been postponed and a significant number of surgical interventions and specialist visits were considered non-urgent.

Many departments that had intrinsic validity have been dislodged, sometimes abruptly, to make room for the Covid-19 intensive care units.

11. Health Personnel

The pandemic resulted in the detection of relevant shortages in the amount of medical and nursing personnel.

These deficiencies, in most cases completely unsuspected by public opinion, were also reported in non-European countries and only the political sphere can take the appropriate decisions to solve the problem.

According to the most accredited opinions, the improvement in the global health of the European post-Covid society could only come from a general rethinking of health logistics, new investments in training, the timely acquisition of medical and nursing personnel, and from a more integrated vision at the European Union level[17].

The new opportunities arising from the exit from the pandemic crisis have been widely emphasized by several authors and they are undoubtedly linked to a better general use of information technologies.

For companies, these new opportunities are mainly indicated in innovation and development, and in a new relationship with the environment, also with regard to climate change and energy production.. This future seems to be accompanied by the fear of a new "authoritarian democracy",

with its new rules that cannot be explained or controlled. Igor Grossman and Oliver Twardus of the University of California have clearly expressed the relationship between the post-Covid situation and a possible emergent authoritarianism[18].

In this field European public communication has made multiple mistakes, thus damaging the image of many Institutions and men statesmen[19].

12. New Real Powers

The long periods of isolation, combined with the spread of unverified information and the rise of irrational fears, have led to the rise of new real "strong powers" which in the post-Covid period have largely replaced traditional powers. The three main ones are:

1. The power of social networks and social media, and the economic and financial level of the digital platforms do not seems easy to control, nor it is circumscribable without an adequate mechanism within the European Union.

Social media combines professional improvisation and the absence of any ethical foundation.

The increasing medias' weight is a natural consequence of the collapse of traditional journalism. The concept of public opinion is shrunken and impoverished by social media once again after the advent of the myriad television channels. By now, there are many small "public-private opinions" which tend to be structured with the sectarian characteristics of total self-referentiality[20].

When we speak about the power of new technologists, we especially mean those who deal with cybersecurity. Therefore, they perceive themselves as guardians, custodians, but also referees. This power is even less circumscribable from outside. Social media instead of news or images, operate immaterial objects, unknown to the majority of people.

Though, there is nothing magical or irrational about them, they are hardly accessible, and ensure that technologists constitute a new caste: they are admired, with considerable financial means, and close relations with the world of finance, the secret services and the police.

2. The power of hope. It is the power of those who manage the production and disposal of vaccines and medicines while establishing their characteristics, prices and conditions of distribution.

This power of hope has grown exponentially with the pandemic, and the leaders of these enterprises have treated heads of state and government on an equal footing, taking part in decisions that have charted the fate of entire human groups.

3. These new powers interact with the great techno-digital powers.

Alphabet, Amazon, Apple, Facebook, Microsoft now dominate the expectations economy and have now replaced for levels of capitalization and revenues the *big names* in the oil or automotive sectors.

Some private for-profit subjects, which at first glance would therefore be defined as companies, have taken on an absolutely different subjectivity on the international scene.

Partly as a result of the pandemic, they have formed public-private partnerships, established foundations and negotiated with state institutions and international organizations.

By their very nature, the new powers and techno-digital one s, which have now become

"techno-financial", do not seem to need to carry out lobbying in defense of their interests, leaving the "small powers" with the task of carrying out lobbying initiatives with European and national institutions.

13. Winners and losers

Among the great winners of the Covid period are distance learning, electronic commerce as a whole and online sales, smart working (i.e., bureaucratic and professional work done from home). Globally, therefore, the victory of the "immaterial" over the material. But it should be noted that all this virtualization of relationships also has a profoundly de-socializing effect on the social body. Basically, everyday life lacks work colleagues, schoolmates, "my bar's friends", "my peers", and "that little store where I used to stop and chat with the owner and the other customers".

All those informal groups that, from Norway to Gibraltar, contribute to the characteristics of European society. How much these informal ties were – and are – important had been ascertained at the time with business research, which had established that the time spent by employees chatting in "coffee breaks" was positively offset by the strengthening of ties.

Interpersonal relationships – and consequently a sense of group – belonging to the company. It's no coincidence that business consultants today are developing techniques and solutions to develop "group belonging" in the era of smart working.

Significant, however, in the era of the pandemic, is also the victory of the disvalue of "secrecy".

A tool dredged up from medieval darkness, which has defeated the postmodern value of transparency. But paradoxically in an antinomian way: the dissemination of information and private news about citizens prevails over a privacy that increasingly appears to be respected only in a formal way. A kind of chatter or gossip institutionalized through "traceability".

Naturally, travel, the tourism-hotel cluster and retail sales take on themselves the negative consequences for many important sectors of the economy and employment. What we say is not on the economic side but on the psychological one. Interpersonal relations, public communication, in particular the communication of health authorities, are also defeated[21].

The debate that has developed in the scientific world, with sometimes spectacular implications, has also compromised in a certain sense the image of the medical-biological sciences[22].

The question remains whether European society and its ruling class have learned anything from the harsh lessons of Covid, and whether they will be able to respond more effectively to possible new emergencies.

14. The Russian-Ukrainian conflict and the new stress of global health

While the European and world population were slowly recovering from the heavy legacy of Covid-19 and planning for a difficult post-Covid, a new traumatic event occurred. On the night of February 23-24, 2022, the Russian Federation, after declaring that it would not conduct any war actions against Ukraine, decided to undertake a "special military operation" on Ukrainian territory, with deployment of large contingents of men and means, and began a series of aerial bombardments on the

capital and several cities on Ukrainian territory. The intertwining issues in this new Russian-Ukrainian conflict are extremely numerous. As in almost all modern conflicts, military strategy and human rights, geopolitics and minority rights, power politics and international law, ideology and public communication, economic policy and anthropology are intertwined and, in the practical case, they may be antinomian to each other. It is not our task as social researchers to analyze them here, nor to make predictions about the outcome of this war, but some general considerations are necessary. The events of the war, and the decisions taken at the political level by European capitals as sanctions against the Russian Federation, have and even more will have a profound influence on global health, in particular:

1. Food sector.
2. Energy sector and environmental choices.
3. Immigration and refugee reception.

14.1. *Food sector*

Taking into account that before the conflict Ukraine was one of the largest producers and exporters of wheat in the world and that this year sowing and harvesting will not be able to take place normally, it is possible that some importing countries will have to face to serious food shortages.

14.2. *Energy sector*

The decisions taken by western governments to reduce up to block imports of gas and oil from the Russian Federation have already made their effect felt not only on Russia but also on the same countries which decided them, raising the prices of many raw materials, and therefore affecting the choices of final consumers. With the immediate consequence to constitute an important part of the inflationary phenomenon that is hitting Europe hard. The decision to diversify sources of gas and oil imports has been a necessary consequence for many western countries, but public opinion has not failed to note how some of these producer countries that are now seen as "alternative" are politically linked to the Russian Federation for example Algeria and some African countries. The orientation towards nuclear energy – already abandoned by Italy since 1987 – does not appear to be a global solution. Renewable energies, i.e. solar and wind power, are much more accredited, also from an environmental and global health standpoint. But even in this case, in order to be of international importance, decisions would require European political unity and significant economic investment, and also some time before becoming operative.

The problem triggered by the Russian-Ukrainian conflict has overshadowed the correct concerns that many European countries had about the environmental damage caused by an economy that relied too much on fossil fuels. All the projects to achieve a *green* economy in Europe, and to face the climate challenge, have been postponed. And this can be considered another serious "collateral damage" caused to global health by the current conflict.

14.3. *Immigration*

Following the conflict there have already been large movements of Ukrainian population who left their country to enter the territory of the European Union[23], in particular toward Poland, Romania, Moldova, also with the intention to later

reach other countries such as Germany, France, Italy, USA, Canada, Israel. As to the number of refugees, it is extremely difficult to make a precise global calculation, and even more difficult to formulate hypotheses on possible new population exoduses.

Such a large demographic movement has the capacity to disrupt the European "post-Covid" period under the socio-economic, socio-political and socio-cultural profile. But we cannot overlook the potential consequences in terms of global health, taking into account both the low rate of vaccination of the Ukrainian population and their habit of living in very different climatic conditions.

The attitude of many European countries – in particular Poland, which had expressed extreme opposition to accepting refugees from the Middle East and Africa – has been completely reversed in the case of Ukrainian refugees. According to a poll, 92% of Poles are in favor of accepting Ukrainian refugees[24]. In this case, there were probably deep anthropological affinities that determined at a social level a desire not only not to reject refugees, but "to take care of them". However, not dissimilar percentages are found for Germany (90%), and Italy (89%), while France stops at 80%, substantially confirming the opinion expressed a few days earlier in another poll 79%[25].

A question remains, however, as to how much this economic burden of reception and insertion/integration can weigh on the economy of individual countries, especially in the long term, without the Union taking charge.

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The Epidemiological Transition from Acute to Chronic, Health Inequalities in India

by Dagmar Rinnenburger*

Abstract
An epidemiological change has already taken place, and also in the post coronavirus phase the number of chronic diseases will be higher than acute and communicable ones. According to the WHO (2), in 2015 5.8 million people in India died of NCDs (non-communicable diseases), i.e. chronic diseases: cardiovascular and lung diseases, cancer, and diabetes. In 2015 diabetics were 69.2 million and will be almost 100 million in 2030. The complexity of interventions is linked to socio-economic conditions and, in particular, to access to education and drinking water. In Mumbai 40% of the population lives in slums. Four main social factors impact the health of people living in poverty: dirty water, low education, physical inactivity, and transportation. These elements cause situations to further deteriorate, and chronic disease plays a complex role. There are no easy solutions to this: India, which is both very rich and very poor, requires specific interventions aimed at different contexts, and it must be noted that a shift towards an anticipatory and proactive approach can be found both in rich and in poor countries.

Keywords
Epidemiological change, India, slum, global burden of disease, diabetes, rural public health system.

All over the world cronicity is rising. In the developed world people get much older and multimorbidity is more frequent, acute infectious diseases were under control until the pandemic of SARS-CoV-2 started in 2020. In emerging countries like India acute and chronic stay together in a different way. Its growth rate is similar to that of China – its GDP (Gross Domestic Product) increased by 8.2% in 2016 and by 6.1% in 2019; also, the gap between rich and poor seems to be widening. There is a rich India, similar to Western countries, where the "middle class" is on the rise and poverty is dropping.

India still struggles with infectious diseases such as AIDS and malaria; it struggles to treat about 400,000 children who die of diarrhoea and hosts about a quarter of the world's cases of tuberculosis. When we think of India in terms of health, infectious diseases and starvation come to the fore. Infectious diseases, although slowly decreasing, still absorb a considerable amount of resources.

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"With a population of 1.34 billion, the burden of disease in India is closely monitored by scientists interested in health globally. India's burden of disease is dominated by 2 apparently divergent clusters of disease – on the one hand, cardiovascular conditions that are classically associated with overnutrition and affluence; and on the other, diarrheal disease and lower respiratory tract infections that are classically associated with undernutrition and poverty. This paradoxical mix of diseases reflects an ongoing epidemiologic transition, which has emerged alongside the transition from a low-income to middle-income economy. India boasts one of the fastest growing economies in the world, but economic gains have been heterogeneously distributed across the population. Against this dynamic epidemiologic and economic backdrop, there is growing interest in disaggregating national health statistics by socioeconomic groups, in part to inform discussions on allocation of finite resources for health and health care"[1].

According to the WHO[2], in 2015 5.8 million people in India died of NCDs (non-communicable diseases), i.e. chronic diseases: cardiovascular and lung diseases, cancer, and diabetes. One in four people in India are at risk of dying of a chronic disease before reaching the age of 70. India is also a country with a huge number of diabetic patients. According to the WHO, in 2015 diabetics were 69.2 million and will be almost 100 million in 2030. The consequence is a large number of patients with kidney failure.

In December 2017 «The Lancet»[3] published an epidemiological report on India titled *Nations within a nation: variations in epidemiological transition across the states of India;* 18% of the world's population lives in India: 1.340 million people; here states are more similar to nations. The conclusion of the article is that in India in the past 25 years, NCDs (Non communicable diseases), which are chronic diseases, have surpassed CMNNDs (communicable, maternal, neonatal and nutritional diseases), at a rate that varies greatly from state to state.

Maternal diseases and perinatal deaths are a very important factor, although they appear to be constantly decreasing. According to the Unicef website more than 60,000 children are born every day in India – that is one sixth of global births. We may take a European country such as Italy to make a comparison: in 2018 about 1,200 babies a day were born here. Perinatal mortality in India has dropped significantly in the last 25 years. In 2018 about 30 children died in India for every 1000 (in Italy 2.59), but in 1996 there were still 76 deaths for every 1000 births (WHO source). The reduction has been achieved by working on the safety of mothers and newborns, on the conditions that allow women to give birth in protected environments: most deaths of mothers and children occur in fact in the 48 hours around delivery.

Vast resources still go to infectious diseases, while the threat of chronicity is looming, and affects not only the elderly. As a tracer of epidemics we may take diabetes, as suggested by Gavino Maciocco in the book *La salute globale* (Global Health)[4]. The choice of diabetes is due to the fact that this disease occupies a middle position: towards the top of the curve we have risk factors and obesity in particu-

lar, towards the bottom there are cardiovascular diseases and a series of related conditions (from kidney failure to blindness), more frequent among diabetic patients than in the rest of the population. In India, type 2 diabetes is more frequent and is correlated with lower body weight than in other countries.

The most striking fact is that the rapid increase in diabetes and insulin resistance in India is not only linked to an increase in obesity: both abundant nutrition and malnutrition of pregnant women are to blame. A real paradox. The fact that low birth weight is a risk factor for the development of type 2 diabetes, especially in women, was the subject of an article published in 2015[5]. It means that in order to effectively prevent diabetes, it is necessary not only to improve people's diet and enhance physical activity but also to improve nutrition for pregnant women. Diabetes in India starts earlier, at a younger age, and has less to do with obesity.

Ketoacidosis, retinopathy neuropathy, nephropathy and coronary heart disease and foot infections are the sad consequence of poorly managed diabetes, so the question is: can we afford to be ignorant and continue spreading false information about the disease? The poorer a country is, the less we can afford the price of ignorance. The conclusion is that prevention should begin in school. Siddartha is a young man and type 1 diabetes affects only 10% of Indian diabetics, but the difficulties in finding the right treatment and the prejudices related to the disease are similar in other cases. In fact, there is a strong prejudice against diabetes also outside India.

How can such a huge nation react to this challenge? The Kaiser Permanent Model (Kaiser Permanent is one of the largest non-profit Health Care Plans in the United States) clearly shows that 5% of the most severe cases absorbs 70% of the resources. The challenge is: not to allow these cases to reach such an advanced stage, but act much earlier, with a model centred on prevention.

In India it is very difficult to access treatment, especially in rural areas, and in the enormous slums of big cities, because of lack of infrastructure. The National Health Service is free and is used by the less well-off. The rich generally seek private healthcare. However, the figures in table 1 show that the service is clearly unable to guarantee universal coverage.

The guidelines that apply in the Western world are not always applicable throughout India. In particular, they do not apply to poor people, for whom access to care, from a logistical and economic point of view, is an insurmountable problem, especially in rural areas. Chronic diseases such as diabetes are not funded as much as AIDS, for example. The costs of treatment are an important factor and often push people to seek alternative, non-validated herbal therapies. Also, not all general practitioners treat diabetes and patients are often sent to specialists who in many cases cannot be reached. Although adapted to the Indian context, many recommendations based on guidelines are difficult to implement in the context of rural and in particular urban poverty. Poverty in India means living in a slum. When the coronavirus pandemic struck in April 2020 the «Financial Times» noted that in India 101 million peo-

ple live in slums, 24% of the population.

The definition of slums given by the United Nations is: "highly populated urban residential area consisting mostly of closely packed, decrepit housing units inhabited primarily by impoverished persons". In Mumbai 40% of the population lives in slums. Of course most of the inhabitants are poor. Personal conditions vary. Mumbai is an extremely expensive city and some workers actually choose to live in a slum to save on rent and utilities. Clearly in this context it is impossible to keep a safe distance and often even wash one's hands, as has become essential since the start of the coronavirus pandemic.

In situations such as these, where does one locate chronic diseases, such as diabetes? An article published in 2018[6] seeks to understand the main difficulties of slums and the way problems overlap, something that contributes to the complexity of this scenario. It concludes that four main social factors impact the health of people living in poverty: dirty water, low education, physical inactivity, and transportation. These elements cause situations to further deteriorate, and chronic disease plays a complex role. The low level of education is linked to cardiovascular diseases. The lack of public transport leads to increased use of mopeds, which reduce physical activity: this leads to an increased risk of cardiovascular disease and diabetes. Standing in line for hours to collect water increases stress and blood pressure. The analysis of the complexity of these interactions could motivate politicians to change the situation. Socio-economic and epidemiological changes do not stop in the poorest part of society, where people live in slums and in poor rural areas. The risk factors of diabetes is the same everywhere: a sedentary life, a poor diet, excessive weight and heredity.

To this one must add that there is no public healthcare system. In Dharavi, the largest slum in Mumbai, in India and in the world, there are reports[7] of many unregistered improvised healthcare services that operate in the field of diabetes. Here many have been diagnosed with diabetes, though at an advanced stage, and are given unregistered over-the-counter medicines. Poor diabetics pay for this delay with their lives. To apply the Kaiser Permanente Model would be unthinkable here, a model that dedicates 70% of resources to the top 5% of severe cases.

Change can only happen through healthcare policies and government action. Jeremy Ang's[8] article comes to the same conclusions as those reached by Julian Hart in England in the 1960s: "India will have to radically transform her mode of healthcare delivery from one that is reactive to one that is anticipative, from a system that treats episodic illnesses to one that conducts periodic checkups. Policy will also have to be 'health-centric' rather than healthcare-centric. For a country as large as India, the only way to bring this up to scale while improving efficiency and effectiveness is via a 'Primary Health Care approach'.A more proactive role in preventing the urban poor from falling ill is needed".

The complexity of interventions is linked to socio-economic conditions and, in particular, to access to education and drinking water. An image of the Dharawi slum illustrates the fact that encouraging physical activity in an environment where streets are often no

wider than 70 cm and temperatures are very high makes no sense, especially in the case of women who very often never leave the slums.

An epidemiological change has already taken place, and also in the post Coronavirus phase the number of chronic diseases will be higher than acute and communicable ones. There are no easy solutions to this: India, which is both very rich and very poor, requires specific interventions aimed at different contexts, and it must be noted that a shift towards an anticipatory and proactive approach can be found both in rich and in poor countries.

Julian Hart (8) more than 50 years ago spoke of initiative anticipatory medicine, which requires a different organizational and conceptual model. And healthcare structure to intercept people who might not know they are ill. Today the coronavirus pandemic forces us to admit that everywhere the territorial dimension has been neglected. The much discussed triad applicable to infectious diseases – test, trace, treat – can only work with a functioning territory: for example, the same network that tracks and follows diabetics can be used in cases of infectious emergencies. It requires organizational creativity outside hospitals. We have seen strong healthcare systems collapse, for instance in Italy, Spain, England and especially in the United States, where the focus was on the large hospital network, because that is where the ill went for help. It would have been necessary to reinforce the system and implement prevention at a territorial level, to isolate new infections and flatten the curve which overwhelmed hospitals, and caused situations we thought were unthinkable – trucks carrying corpses in Bergamo, Italy, and refrigerator cells being used for bodies in New York. Territories and medicine for chronicity are intertwined with acuity, especially with infectious diseases, and it is wrong to focus on the various specialised branches inside public hospitals or private clinics of excellence. We now see that the lesson of chronicity also applies to an acute context, it is an opportunity for improvement.

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The Right to Asylum

Gender as a Protected Social Group

by Maria Angela Maina*

Abstract
This article examines the need to review and amend the Convention Relating to the Status of Refugees (1951) in order to expressly include gender as a ground of persecution within the requirements for obtaining refugee status under Article 1(A)(2), as opposed to the current practice of classifying asylum seeking women as "members of a Particular Social Group (PSG)". This paper concludes that recognizing gender, as a nexus ground for protection, will give the victims appropriate protection from gender related persecution and will provide host States with a uniform legal standard for determining asylum applications with the discretion to conclude individual cases based on the evidence provided.

Keywords
refugee convention, asylum seekers, persecution, gender, gender related persecution, gender-based violence.

1. Introduction

The problem with the Convention Relating to the Status of Refugees (1951) is that it offers neither a comprehensive nor a flexible response to the diversity and complexity of forced population movements that are occurring today: It was designed for a different era[1]. The contentious decade-long debate in this arena revolves around the express inclusion of gender as a protected group within Article 1(A)(2) of the 1951 Convention Relating to the Status of Refugees (the Refugee Convention).

This article provides an overview of the stipulated requirements for obtaining the status of refugee and an analysis of how the Refugee Convention is interpreted and applied today, with the assistance of case law to point out the irregularities arising from the *non liquet*. Its conclusion contains a summary of findings and recommendations on the possible best way forward.

2. Overview: International Requirements for Obtaining Refugee Status

Today, the 1951 Refugee Convention is legally binding to its signatories, with the requirement that no reservations may be made on Article 1 (definition of a "refugee"),

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among others. Consequently, Article 1 of the Convention plays an important role in determining refugee status internationally, since it stipulates who receives successful protection deriving from refugee rights. Article 1(A)(2) of the Convention which defines a refugee, *inter alia*, is itemized to provide the requirements an asylum seeker must satisfy to obtain the status of refugee, which is that the individual[2]:

1. Has a well-founded fear of persecution.
2. Fears persecution on the specific grounds of race, religion, nationality, membership of a particular social group or political opinion.
3. Is outside the country of his/her nationality or habitual residence and is unable or, owing to such fear, unwilling to avail him/herself of the protection of that country.

It is therefore imperative to understand the aspects that contribute to persecution.

"Persecution" = Violation of Human Rights or Serious Harm + The Failure of State Protection[3]

Prima facie, Article 1(A)(2) of the Convention displays a difficulty in directly addressing the needs of asylum seeking women, especially amidst the global increase of gender-based violence cases, of which – globally – 736 million women are currently victims[4]. The present state of the Convention requires deeper interpretation by decision-makers and legal practitioners to effectively determine in which specific ground under Article 1(A)(2) they can place asylum seeking women to effectively grant them protection. Honestly speaking, it seems that nobody or nothing will effectively protect these victims if the Convention stands as is.

3. Gender as a Particular Social Group: Inconsistencies of Application and Interpretation

Women and children are deemed as vulnerable, especially in times of conflict, and form the bulk of those in refugee camps who suffer human rights abuses[5]. In this case, gender related persecution is primarily used to underscore the fact that structural and gender-based power differentials place women and girls at risk of multiple forms of violence with little or no protection from their States of origin. In order to receive protection under international refugee law, these acts of violence need to have been perpetrated by either a State agent or a non-State actor. In the case of violence perpetrated by a non-State actor, international protection is received when the State is unwilling or unable to protect the individual accordingly.[6] Female Genital Mutilation (FGM) is a common claim and one of the few reasons why women choose to flee their home countries in search of international protection.

3.1. *Case Study: Female Genital Mutilation (FGM)*

To begin with, acts of domestic violence and sexual violence, such as FGM, are often perpetrated by non-State actors. Thus, they are often viewed as private matters and, in most cases, the victims are not able to qualify for asylum[7]. Today, FGM is actively practiced and it is estimated that 68 million girls are at risk of being victims by 2030[8]. Incidentally, laws criminalizing FGM are present in various regions where this practice is prevalent but there is no con-

sistent enforcement of these laws. Many women and girls have sought asylum because of FGM practice within their community and this has led to challenges in assessing their claims since the Refugee Convention has a vague wording, which leaves room for creative interpretation and expansion[9].

Nevertheless, there has been a more benevolent application of the Refugee Convention due to the UNHCR Guidelines on Gender-Related Persecution, where those fleeing FGM are classified as part of a PSG that appears to brand women either according to protected characteristics under persecution or socially, for simply being women within a discriminatory environment. For instance, the UK House of Lords considered women in Sierra Leone as part of a social group within Article 1(A)(2) of the Refugee Convention as they were all socially inferior to men and living with an imminent threat of FGM as an expression of discrimination against them[10].

Moreover, the asylum seekers are required to establish the well-founded fear of the particular persecutory act by demonstrating the subjective and objective fear of persecution on a balance of probabilities[11]. In France, an Appeal was accepted on the basis that the National Court of Asylum understood the balance of probability and claimed that FGM objectively represented a social norm in Somalia and, thus, children not subjected to FGM constituted a PSG[12].

Contrary to the principles of the Refugee Convention, US case law requires a PSG to be a specified group with a constricted number, hence preventing women from seeking asylum because of gender related persecution.[13] In further consideration, their case law presents the various applications and definitions granted to a PSG, as elaborated within the case of *In re CA Respondent*, which creates even more confusion as to the true qualifications that are required[14].

Overall, the inconsistencies in the interpretation and application of the Convention in considering membership of a PSG, leads to insufficient protection; lack of clarity as to who exactly constitutes a PSG is left to an open interpretation and, as such, causing the rejection of some applications for not meeting the required standards of proof. A present-day news report on an FGM victim's third application for asylum in the UK, proves the urgent necessity of this debate to be taken seriously. Asylum rights advocates affirm that the bar for granting asylum is too high and the grounds on which it is granted are extremely strict, tight and narrow[15] which could potentially create a humanitarian crisis.

What's more, the PSG ground is criticized by scholars as being one with the least clarity in the Convention, calling for a need of a more orderly approach in order to prevent instances of refoulement and further violations of human rights. Evidently, the UNHCR reports that 76% of resettlement case[16] were of victims of torture and violence with legal and physical protection needs, particularly women and girls.

4. Conclusion and Recommendations

There is more than a dire need to amend the Refugee Convention. The original Refugee Convention drafters did not consider gender at all[17] as a PSG because of the social

and political context that triggered its creation[18]. Of course, time has passed, causing exigency for a review of its provisions to fit the context of today where there is the rise of gender equality, increase in cases of gender-based violence and amplifying concern over human rights violations within the 21st century.

Some domestic Courts have attempted to use the justification of the intention of the drafters to exclude gender while making their interpretation of the Convention. All the same, this approach is truly flawed and does not contribute to the cause of justice. It forces women to return to or resume living in hostile environments that lead to further violations of their human rights. It is imperative for laws to apply prospectively – looking into the future for possibilities to address gaps and possible situations that may arise. In addition, legislators, magistrates and – generally – men of law should not simply debate and make laws, but rather review them in light of fundamental current affairs such as the global Sustainable Development Goal (SDG) no. 5 to eradicate gender inequality.

While critics believe that expressly recognizing gender in the Refugee Convention will open the floodgates for overwhelming asylum application from women, the Canadian Supreme Court differs whereas it holds the view that: "'Gender' can be the immutable characteristic that defines a PSG, and there has been no "explosion" of gender-related claims in Canada. On a more fundamental level, floodgate concerns ignore the essential nature of refugee status determination; that it is a highly individualized, case-by-case process. While recognizing 'women' as a PSG may make it easier for prospective claimants to meet the 'membership of a PSG' ground, they would still have to satisfy other elements under the refugee definition, none easier than the other"[19].

Indeed, today the fight for gender equality is stronger than ever. Yet, true justice can only be achieved from a collective change in social norms, cultural attitudes and policies. There is a symbiotic relationship between law, behavior and attitudes. FGM is an example of this symbiotic relationship. There is international human rights law against FGM and various national laws on the same, but the lack of enforcement and the still present attitude towards controlling women is the reason why it still predominantly happens in Africa, in the Middle East and in South Asia[20]. We must strive to unify laws, social behavior and attitudes to achieve true gender equality. We can hold all the conventions and actively advocate against these acts, but if the laws and policies do not change to reflect this attitude, then nothing will truly change. The book, "The Right to Asylum from a Gender Perspective" by The Thinking Watermill Society, with the cooperation of Pavia e Ansaldo law firm, discusses this topic in totality.

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Housing in Mental Health as an Educational European Road towards Civil Rights

by Emanuele Caroppo, Paola Cavalieri, Josè Mannu, Vincenzo Francesco Scala*

Abstract

Housing in mental health is a complex process that requires qualified interventions and the activation of skills and competencies of local community actors. The international community with the experimented limits and potentials already knows experiences of de-institutionalization, therapeutical communities and shared supported apartments. Housing represents today an advanced strategy of the social inclusion process with widespread experiences in different European countries. It is closely connected to the internationally well-known and diffused approach of "recovery". The excessive institutionalization of people with mental health issues encumbers on public finances and it has repercussions on the quality of care services. With this paper we want to present the HERO project and its outputs to the scientific community. HERO (2016-2019) is a project funded by Erasmus+ program and aims to develop: – Updated, interdisciplinary information appropriate for all interlocutors, that circulates among all the actors involved in the different stages of Housing. – A flexible educational model to Housing, addressed to local communities, developed starting from the experience of those directly or indirectly involved with housing. HERO's target groups are local community actors where Housing is active or can be activated, interested in non-formal and informal learning: – Mental Health Services and professionals. – Other public Agencies (schools, job centres, companies, etc.). – Communities (volunteers, neighbours, shopkeepers, etc.). – People with mental health issues and their families. Two main outputs of the project: 1. the eBook: Housing and mental health. Quality indicators toolkit for local community. 2. Curriculum: training pathway for local communities. The indicators, which give the eBook its title, represent the synthesis of a survey that integrated bottom-up and top-down methodologies, were the starting point for HERO's constructive comparison of Housing experiences in various European countries. They allowed the HERO partnership to develop the training Curriculum on Housing for local communities. The proposed model is to build a system of relationships in which people find possible to live well with, and despite, their mental health issues. If, as the UN report states, "we are all potential users of mental health services", then the goal is "to make possible" a satisfying life in which everyone is able to express their abilities and desires.

Keywords

housing, mental health, civil rights, mental illness, complexity, local communities involvement-inclusion.

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1. Introduction

If we acknowledge "Law n. 180" as a new paradigm of mental health, we must find a solution to the multiple issues that find their origin within this paradigm.

A paradigm is "a way of seeing" the world, a "construction of the world" from which new issues are generated.
The new issues require new planning, namely new organizational patterns: "Planning means organizing: a plan is an organized and organizing organization. A pattern cannot be reduced to an organized scheme, as refined as it can be. We must build it and read it through its organizing potential"[1].

Housing is a complex system in which an individual expresses his potential; in other words, an individual can express his identity "by mingling in multiplicity".

"Independence is based on dependence towards the environment; the concept of independence becomes complementary to that of dependence. To become independent, one needs to be dependent"[2].

Is there a connection between paradigm and organizing potentialities? We believe that a connection lies in "civil rights". Whereas in a Psychiatric Ward, the hospital took over these rights and it defined them, in the new paradigm, civil rights define the hospital, and they outline it and its new issues. One of the issues concerns the concept of "housing".

We believe that the "targets" of the housing project are people affected by mental illnesses as well as their families, mental health operators, public and private employees, and citizens in general.

When we refer to target groups we must always take into account that each individual is the result of his relationships, experiences, etc. Therefore the concept of "housing" implies "education" not just for one person but also for the other people who populate his environment.

But apart from this, placing the individual in a complex context means detecting resources that cannot be identified with the person's illness:

On a cultural level people are prepared to accept a clear division between the opposite concepts of "health" and "illness" which sound as obvious as the conflicting ideas of "rain" and "sun". As they are perceived as unconditional concepts (positive versus negative) a connection and a dialectical relationship between them cannot be established, thus denying the fact that illness can represent a phase in someone's life, an opportunity to appropriation of self, of one's own body, of one's experiences and therefore of one's health[3].

And more: Very few morbid conditions today can be described as "bacteria-generated illnesses;" there are often numerous interacting causes and concurrent factors. Obesity may predispose one to diabetes and arthritis, which hinder physical exercise and affect blood pressure and cholesterol levels. All these factors, exception made for arthritis, may lead to stroke and coronary artery disease. It may happen that the effects (i.e. depression following a heart attack or a stroke) may turn into causes, therefore leading to relapse[4].

2. Methods

2.1. *The project: An Educational European Road towards Civil Rights*

"Housing" is more than a supported apartment; it is a system of social facilities into

a network of human relations in a safe neighbourhood. The safeguard of mental health is becoming increasingly important in the world. In the past few years, the World Health Organization has launched a number of initiatives to raise awareness about the various degrees of disability that can be generated by mental illness.

According to the opinion expressed by Mrs. Margaret Chan, Director General, World Health Organization, during the Presentation of "2013-2020 Action Plan for Mental Health" Mental well-being has been defined as essential to general health according to the WHO. Good mental health generates personal fulfillment, the ability to cope with ordinary everyday tensions, professional behavior and productivity, and a positive contribution to the community. To give this subject the attention it deserves, all over the world there is still much work to be done. Many things must change if we are to reverse unfavorable trends and end human rights violations and discrimination against people affected by mental disorders and psycho-social disabilities. This global action plan recognizes the essential role mental health plays in reaching our overall health objectives. Based on a lifelong approach that aims to achieve equality through universal health coverage with a focus on prevention, the plan revolves around four core principles: an effective leadership and governance in the field of mental health; the availability of integrated, comprehensive mental health and social services that meet the needs of the community; the implementation of prevention strategies; and the dissemination of in-depth information through the gathering of more scientific evidence and promotion of research. The objectives of this action plan are certainly ambitious, but the WHO and its Member States are fully committed to achieving them. (Mrs. Margaret Chan, Director General, World Health Organization, Presentation of "2013-2020 Action Plan for Mental Health").

The action plan is complementary to the "Quality Right toolkit" by the WHO, here the standards supporting Housing are defined in according to the five topics of the UN "Convention on the Rights of Persons with Disabilities":

1. The right to an adequate standard of living and social protection.
2. The right to enjoyment of the highest attainable standard of physical and mental health.
3. The right to exercise legal capacity and the right to personal liberty and the security of person.
4. Freedom from torture or cruel, inhuman or degrading treatment or punishment and from exploitation, violence and abuse.
5. The right to live independently and be included in the community.

Therefore, a significant change underlies the concepts of illness, health and hope. But there's another element that enters into our work: the life of an individual is strictly connected to that of an entire social fabric. The concept of "housing" is based on an untested "nucleus" – as Imre Lakatos suggested – according to which "civil rights come before the hospital" and on the paradigm intended by Thomas Kuhn, which is the principle expressed by Law n. 180.

The Housing Project cannot only be founded on such concepts as "House first" or

"Step by step" but on a system based on social and individual culture where houses, relationships and rights are interwoven.

The World Health Organization has introduced the diagnostic tools "ICF", an acronym for "International Classification of Functioning, Disability and Health", as parallel tools to ICD (International Classification of Diseases). Their aim is to introduce the importance of functioning as it is experienced by people: It is a universal experience where body, person and society are interconnected. Over the course of their lives, people can have different functioning experiences, associated with congenital disorders, physical damage, acute or chronic pathological conditions, or aging[5].

HERO is a project that revolves around places: Urban environments are constantly subject to change, and they are interconnected. In these places, the only fixed concept is the idea of transition[6]. Housing is an English word which indicates the act of inhabiting and the 'ing' suffix evokes the idea of progress: this means that inhabiting is not a fixed concept, but rather implies change and evokes a path, a neighborhood and a city where relationships are built among people who know one another or who are meeting for the first time. Neuro-scientific research reveals that the brain is an organ that lives and grows through relationships: The idea of mind and by extension of selfhood that I want to bring forth through the notion of extended self is that of a self that is located neither inside nor outside the brain/body, but is instead constantly enacted in-between brains, bodies and things and thus irreducible to any of these three elements taken in isolation[7]. We believe that mental health cannot be achieved in one single place. After speaking with Ronald Laing – as reported in *Crimini di pace* (1975) – Franco Basaglia wrote: "Laing [...] now proposes again [...] the building of an 'asylum' which responds [...] to the need of a shelter to protect those who experience a 'different' existence. This should be a place where 'different' people are able to express themselves without limitations and where they learn to live with their differences. As much as Laing incites us to resist and fight within the institutions, we encourage him to try and prevent the 'asylum' from becoming another kind of institution, as it will inevitably be integrated into the social and economic area in which it will be built [...] Although this project focuses on the individual, it does not feature any in-depth analysis of the political and social environment in which the individual is to be assimilated. It is not correct to presume that there can be a place where patients can be cured without any social and political intervention: Health lies in diversity, in new possibilities, in one's faith in a different future"[8].

"Between 1950 and 1960 many European clinicians and politicians carried forward the idea that mental treatment did not require a long stay in a mental hospital [...] They were opposed to the old-fashioned psychiatric wards as they considered them 'anti-therapeutic'. However, their approach was quite naïve, as it aimed at changing the structures and not the methods"[9].

If the structures were too large, smaller buildings were built; If they were remote from the center, they were moved into the city. However,

this didn't work. Even in the smaller centers the so-called "new chronicity" persisted. HERO proposes something different: It allows one to live with and in spite of his or her suffering, with awareness of one's differences, and to be integrated into a network of relationships formed in places designed to improve mental health (community, apartments with customized facilities, etc.) and are based on social resources (cultural centers, theatres, recreational centers, etc.), on therapeutic activities within the facilities (such as multiple family groups) and offsite groups (such as "Hearing Voices", music events, sports events, etc.), on work (according to personal abilities and opportunities). They promote volunteering services to help overcome the difficulties of establishing relationships and communication with people who are generally considered "unpredictable" and "different". Of note is that these places are interconnected, accessible, habitable and modifiable. They are places where everyone feels welcome, respected, not judged or stigmatized, and can become aware that mental health (and not only that) is a status that can be obtained if everyone is involved, because it involves everyone. We are convinced that the surrounding territory must be strictly connected to the "places" where patients are staying: these places should always be considered in relation to the surrounding environs. As early as 1994 Marc Augé affirmed that "It is necessary to overcome the restrictive notion of whole cultures as independent entities forced to co-exist"[10]. We should be building a system to find a new language that is not the sum of different languages, but rather one that produces a new culture inspired by social well-being and psychic health.

This is our goal.

3. Conclusion: a Training Curriculum on Housing and Mental Health, for Local Communities

Writing a training Curriculum on Housing and mental health has been particularly important for the partnership because it has helped us spread knowledge and skills about housing in local communities. The objective was to promote housing as a strategy that can promote inclusion in our society, with a particular focus on mental health issues.

The "generalist" architectural approach that characterized the second half of the 1900s and the first years of 2000s, mostly produced "uninhabitable" buildings, and this is especially visible in many cities' outskirts.

Urban outskirts originated around the idea that new environmental homogeneity was needed.

Our work "in progress" aims at increasing attention to people's diversified needs.

It is therefore becoming more and more urgent that we populate the environment with real relationships and connections, create an ambience where differences are welcomed, and draw attention to the concept of 'good living' and the direction we should take in a society whose framework makes us experience loneliness 'without ever being alone'.

For more details: www.housing-project.eu.

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Authors' note

This Paper was possible as a result of the three-annual Project "Housing: an educational European Road towards Civil Rights" (2016-2019), co-funded by the Erasmus+ Programme of the European Union [Project n. 2016-1-IT02-KA204-024078].

The partnership was composed of six organisations from different EU countries: ASL Roma 2 as leading organisation (Department of Mental Health), with the University Pshychiation Hospital Vrapce (HR), Merseyside expanding Horizons (UK), PEGODE (BE), PEPSAEE (GR), Don Luigi Di Liegro International Foundation (IT). For more details: www.housing-project.eu.

All authors agree to be accountable for the content of the work.

Chronicles of a Possible Future

Home Therapy Strategies to Reduce the Spread Of Infections

by Gilda Stivali, Stefano Collatina, Simone Naso, Louise Whitehead, Thomas Keaskin, Rosario Valles*

Abstract
today, Healthcare Acquired Infections (HAI) and Antibiotic-Resistance (AR) are two of the main threats to the human health. While healthcare settings are increasing their biosafety, one of the possible resources to prevent HAI and AR seems to be home care pathways, supported by innovative digital health technologies. This paper presents three examples of home care settings: Home Parenteral Nutrition, Automatic Peritoneal Dialysis and OutPatient Antibiotic Therapy. In these three examples, digital health technology is supporting and contributes to its efficacy. A set of innovative digital health technologies is then described including process orchestration, which seems to be the most promising approach.

Keywords
digital health, homecare, home parenteral nutrition, peritoneal dialysis, OPAT, outpatient antibiotic therapy, infection prevention and control, antimicrobial resistance, antibiotic stewardship, process orchestration, interoperability.

1. Introduction: the Role of Healthcare Associated Infections

The pandemic influenza (H1N1) in 2009, the Ebola virus threat in Western Africa in 2014, and Covid-19 in 2020 show that international threats through new infections can emerge at any time. Particularly, the Covid-19 pandemic brought an unprecedented challenge to public health, it highlighted the need to invest in health systems, to be prepared to manage global health emergencies and, possibly, to prevent them.

Infectious diseases are not only representing the leading cause of global crisis but are still the principal cause of death worldwide, especially in low-income countries and in young children.

In 2019, two infectious diseases – lower respiratory tract infections and diarrheal diseases – were ranked in the top ten causes of death worldwide by the World Health Organization (WHO)[1].

In parallel to community-acquired infection, Health care-associated infections (HAIs) are emerging in recent years. HAIs are those infections that patients acquire while receiving health care"[2].

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For many years, the spread of infections has been closely monitored by specific national and international agencies such as the Centre for Disease Prevention and Control (CDC) in America and in Europe (ECDC), with the mission of identifying, assessing and communicating current and emerging threats to human health posed by infectious diseases.

Thanks to these surveillance systems, most frequent HAIs reported in Europe are well known and reported below[3]:

- Respiratory tract infections (21.4% pneumonia and 4.3% other lower respiratory tract infections).
- Urinary tract infections (18.9%).
- Surgical site infections (18.4%).
- Infections of the bloodstream (10.8%).
- Gastrointestinal infections (8.9%),

with *Clostridium difficile* infection representing 44.6% of the latter (4.9% of all HAIs).

Over the past few decades, many hospitals have put in place surveillance and tracking programs, along with robust prevention strategies, to reduce HAIs rate. Nosocomial infections are often linked to antibiotic-resistant infections, and, for that reason, they have an impact not only on individual, on single patient, but also on the local communities where this individual belong to.

Antimicrobial resistance (AMR) refers to the ability of microorganisms to withstand antimicrobial treatments[4]). The excessive use, misuse, and self-administration of antibiotics (especially in Italy which ranks first in Europe together with Greece for deaths from antibiotic resistance[5]) has been linked to the spread of microorganisms which are resistant to them, rendering treatment ineffective and posing a serious risk to public health.

Despite many alarms raised by WHO and multiple international campaigns set up worldwide, the number of deaths from antibiotic resistance grew and will grow every year up to reach 10 million/death per year figure in 2050[6].

The issue is that bacteria not only become antibiotic-resistant, but they are also able to transfer the resistance to future bacterial populations. This means that the population of resistant bacteria is growing so fast that resistant pathogens will extend quickly to human-linked environments (such as airports, public transports, schools, workplaces, gyms, etc...).

For infections caused by bacteria it seems clear that the solution cannot be sought by increasing the use of new antibiotics but developing comprehensive plan and guidelines for the prevention of HAIs, more effective and timely diagnostic systems, both in health care facilities and at home.

2. Home Care is a Possible Resource?

Moving patients from hospital care to home care would have a series of positive effects, such as a lower spread of infectious diseases in the environment, a reduction in the risk of contracting infections by patients already weakened by chronic diseases, a greater availability of clinical facilities for patients who especially need to be hospitalized and, finally, a reduction in costs for health care systems[7].

Already in early 2000, several remote patient monitor-

ing initiatives were published to support the ability to treat patients at home with the aim of improving the effectiveness of the treatment and the associated outcome[8]. In the following years, integration of non-homogeneous clinical information into healthcare workflows has started through the increasing adoption of data and process interoperability standards[9], leading to the current scenario where, as described in the following chapter, modern digital health technologies could bring a sensible boost to the home care.

This section describes three home care scenarios where already available today digital technologies are integrated in the management of chronic patients. Home care programs together with digital tools may support health care professionals to overcome the critical aspects that could arise when moving chronic patients from hospital to the territory, and that could limit (or even preclude) the home care application.

Our experience is mainly focused on home parenteral nutrition (HPN), peritoneal dialysis (PD) and outpatient parenteral antibiotic therapy (OPAT), but there are many other therapeutic areas where home care is applicable today and even more soon.

2.1. *Home Parenteral Nutrition*

Parenteral Nutrition (PN) is a lifesaving therapy provided through the intravenous administration (IV) of nutrients (such as amino acids, glucose, lipids, electrolytes, vitamins, and trace elements), outside of the gastrointestinal tract. Total parenteral nutrition (TPN) is when the IV administered nutrition is the only source of nutrition the patient is receiving.

The main adverse effects associated with PN can be due to metabolic abnormalities, infection risk, or venous access associated[10].

The transition from hospital to territory-based parenteral nutrition can limit/prevent the exposure of the patient to nosocomial infections but can also pose significant risks and additional vulnerabilities of the patient if these are not systematically monitored and addressed.

As a result, the treatment benefits of HPN may be hampered by complications and adverse events otherwise avoidable[11].

The ways in which the healthcare organizations implement continuity of care have a strong impact on the safety of HPN programs.

The risks for patient's safety at the time of discharge can be high and could lead to a high rate of return to hospital[12]. However, these problems can be prevented by adopting adequate strategies and clear protocols[13]. Often, the critical issues determining patient's readmission increasing the risk for his/her safety are direct consequence of a lack of coordination between territorial and hospital systems. These criticalities cause interruptions in the information flow, management, and coordination[14].

Modern digital technologies (Figure 1) allow the implementation of automated processes through the introduction of web platforms for the coordination of activities provided at the patient's home (for example, nursing assistance, raw materials, clinical data sharing) and the management of unexpected situations with the possible involvement of hospital clinicians and / or external personnel.

An efficient and effective HPN service can only be pro-

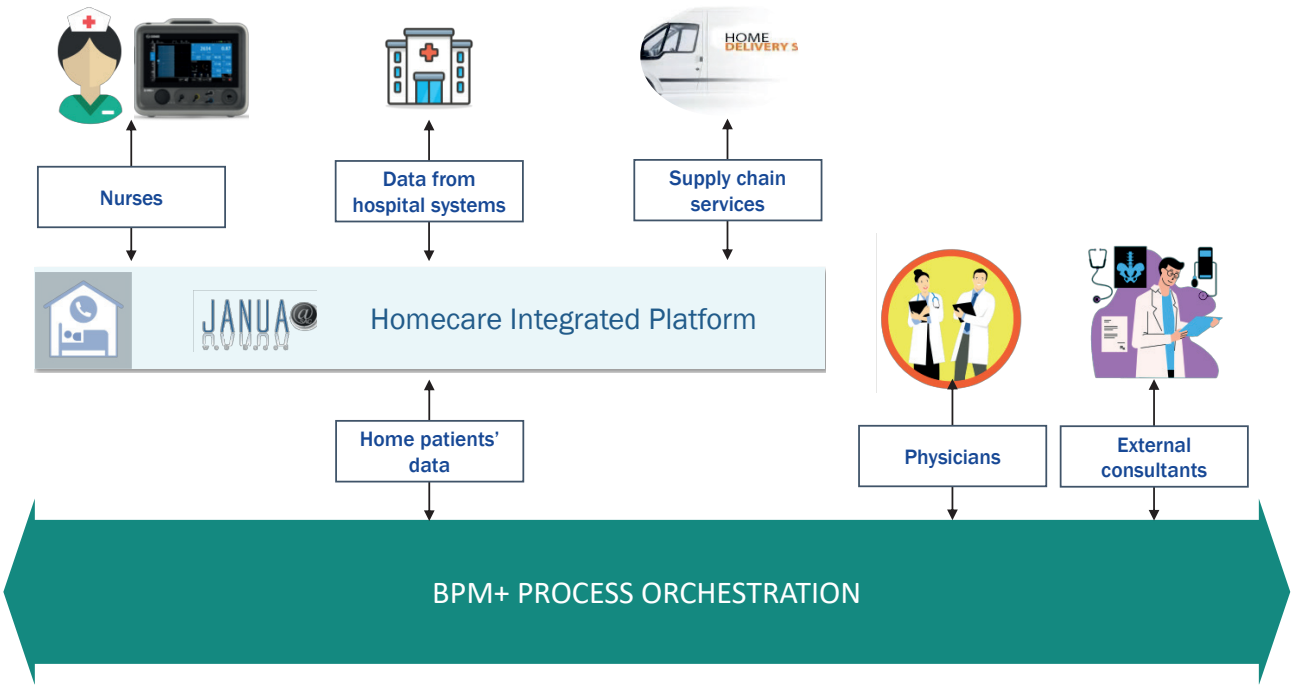

Fig. 1. Digital Technologies supporting Parenteral Nutrition Home Care program.

vided by implementing a constant and timely coordination of all activities ranging from taking charge of patient to the procurement of raw materials and the related administrative management of the entire process.

The adoption of a web platform designed to support this process allows to:

- Manage the continuum of care in real-time.
- Share information in the transition from hospital to home and vice versa.
- Provide an integrated and ideal patient management.
- Monitor the performance of the service provided.

2.2. *Home peritoneal dialysis*

In addition to the benefits already addressed deriving from the home care setting, the possibility to manage patients with chronic kidney disease undergoing renal replacement therapies at home with peritoneal dialysis (PD) is a precious resource that allows patients to lead a quasi-normal life.

The rapidly evolving digital technology now opens the doors to numerous opportunities such as remote patient monitoring (RPM) whilst performing PD at home with latest generations of PD cycler (Automated Peritoneal Dialysis – APD)[15].

During APD, RPM with wireless sensors enable a constant patient biometric data acquisition from the cycler for the entire duration of the treatment (Figure 2). Health care staff (dedicated physicians and PD nurses) can be assigned and authorized to access to these data through pc/tablets/phone to monitor patient treatments monitor at any time, from everywhere.

The new generation cyclers today assigned to the patient

Fig. 2. APD system architecture.

at home, can communicate autonomously with the Hospital (where operational clinical centre sit) and allow patient data collection at the end of the each single APD treatment.

Data collected from patient, both biometric and APD treatment-related, are constantly analysed by the *System* and can be transformed into alarms/alerts to the healthcare professionals responsible for patient's management.

Doctors and nurse can remotely check patient data and decide to change PD regimen/prescription remotely, if necessary.

The impact of adapting treatments/medical prescription remotely can augment patient's compliance, optimize patients' outcome, and enhance patients 'safety.

On top of that, avoiding multiple accesses of the patients to their reference hospital for reviewing/changing the treatments, has the potential to reduce the burden felt by families delivering care at home, to improve treatment adherence, and through real-time feedback loops to improve knowledge through individualized education.

2.3. *Outpatient Parenteral Antibiotic Therapy*

The concept of Outpatient Parenteral Antibiotic Therapy (OPAT) born in the early 1980s in the United States with the aim of bringing together a costs reduction and an improvement in the patient's quality of life resulting from a shorter hospital stay,

and from a more welcoming and comfortable environment surrounding the patient[16].

However, for the OPAT to be carried out independently by the patient, the following steps must be guaranteed:

- Correctness of the dosage of the drug and its components.
- Absence of environmental contamination.
- Correct rate of administration.

Today it is possible to manage the OPAT through a home-based process (Figure 3) and the adoption of modern biomedical technologies.

With the use of these innovative technologies, patients/caregivers that are not able to mix the antimicrobials in the traditional way, can be trained on the use of aseptically filled elastomeric devices premixed by external pharmaceutical suppliers.

Using 24-hour continuous infusion devices, beta-lactam antibiotics such as flucloxacillin, benzylpenicillin and piperacillin with tazobactam can be self-administered by patients themselves, avoiding hospital for the duration of therapy.

Elderly patients or patients with dexterity issues, patients on complex and multi-drug regimens and those for whom continuous beta-lactam antibiotics were the preferred treatment can now be de-hospitalized by providing them with an elastomeric device, which con-

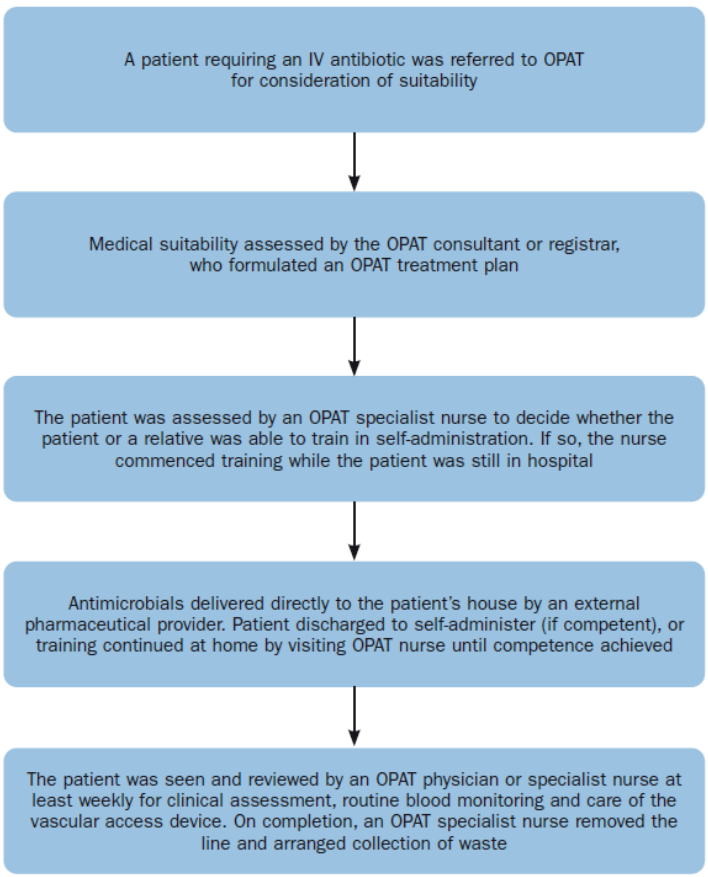

Fig. 3. OPAT home-based process.

tains an elastomeric "balloon": as this deflates over time, it gently pushes the antimicrobial through the intravenous infusion set which carries the drug from the device to the catheter / port, providing a reliable and accurate flow rate.

3. Present and Future Digital Health Technologies for Infection Management

Modern digital technologies are valuable resource for tackling the spread of infections and supporting the transition from hospital to the patient's home.

The implementation of digital devices both in hospital setting and at home, can:

- Facilitate early identification of infection risk and allow prompt intervention by the medical and nursing staff.
- Allow a more prudent management of broad-spectrum antibiotics, more effectively prevent antibiotic resistance, and improve type of and dosages of the right antimicrobial therapy.
- Maximize environments biosecurity.
- Guarantee the governance of therapeutic services provided to the territory, thanks to real-time performance monitoring.

Some examples of these technologies are described in the paragraphs below.

3.1. *Web Platform for Infection Surveillance*

Up until a few years ago, infection surveillance activities were carried out by interdisciplinary medical teams who analyse data extracted from various hospital information systems like e.g., the Electronic Medical Record and/or the Laboratory Information System (LIS).

Today, the healthcare emergency related to hospital infections caused by antibiotic resistance puts the spotlight on health surveillance teams, which have increased the need for an automated and more frequent extraction of a growing number of non-homogeneous clinical data.

Providers of medical information systems are lagging on innovation in infection surveillance, which has led many healthcare organizations to equip themselves with specific tools for surveillance and advanced infection control[17].

A specific infection surveillance platform must be able to transparently collect data from any existing information system within a healthcare organization: admission, discharge and patient transfer registry, microbiology lab, operating theatres, medical equipment, radiology, etc.

The collected data are processed by algorithms capable of immediately detecting potential risks such as:

- The presence, in a specific timeframe, of two or more cases of an infectious microorganism detected on patients hospitalized in the same ward.
- The readmission of a patient who had a severe infection in the past year.

Upon the occurrence of potential risk of infections scenarios, surveillance personnel are promptly notified so that appropriate precautions can be taken to prevent the emergence of epidemic clusters.

Furthermore, these systems can also provide valid support in the antimicrobials stewardship. As an example, the prescription of a broad-spectrum antibiotic could be promptly

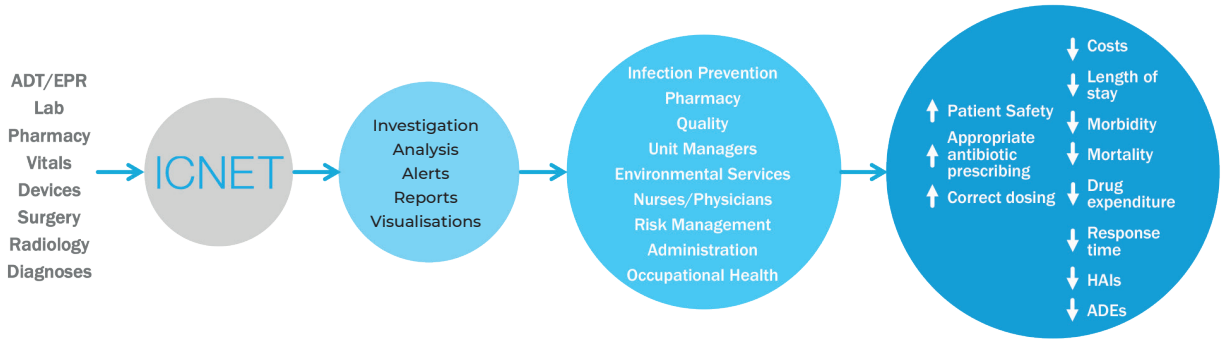

Fig. 4. ICNet infection surveillance platform functioning schema.

interrupted in favour of a targeted drug as soon as the laboratory generates a validate report confirming that a specific pathogenic microorganism has been identified.

Such a platform can bring great benefits within a healthcare facility, such as reducing Surgical Site Infections (SSI)[18], reducing the workload of the infection surveillance team[19], and significantly decrease the broad-spectrum antibiotic drugs prescription[20] and the use of antibiotics in general[21].

The adoption of a specific platform for the surveillance of infections allows greater control in the patients' management and, consequently, favours the possible movement from the hospital to the territory, for example to treat chronic patients and/or for the post-surgery phase.

3.2. *Devices for Sanitizing Rooms Using Lighting Technology*

While providing therapies at the patient's home provides all the advantages described in the previous paragraphs, the home environment may not be able to guarantee adequate biosecurity conditions. For this reason, in the case of particularly delicate or critical patients, it could be useful to adopt a system allowing for the continuous sanitization of environments.

Some very promising technologies have been developed based on the concept of continuous sanitization using frequencies of visible light, without zero ionizing radiation emission, which, while illuminating the rooms, continuously sanitize them. These technologies are designed to provide sanitization without sterilizing the environment and control the proliferation of bacteria and viruses acting in synergy with the natural resilience of the human immune system.

This technology is based on the following premises[22]:

- Avoid "recontamination". "Recontamination" is the re-establishment of a potentially pathogenic microbial population in environments that have previously been treated with chemical disinfectants; as you can easily imagine, once a surface or an environment has been treated through physical or chemical sanitization systems, it is inevitable that it will be re-contaminated as soon as living beings begin to visit it.
- Countering the phenomenon of "resistome" (the resistome is the genetic ma-

terial exchanged between microorganisms that allows the acquisition of genetic information favoring resistance to antibiotics). The reckless use of disinfectants and antibiotics favors the fixation in different populations of microorganisms and mutations that protect them at the expense of sensitive ones. In this way they occupy ever larger living spaces and become fixed.
- Concept of competitive antagonism. It does not eliminate all microorganisms in an uncontrolled way, but, while it eliminates pathogenic germs, it favours the establishment of stable colonies of "probiotics.
- The technology is "customizable", it can be calibrated to ensure the effectiveness required by environments with different levels of microbiological risk.

This technology was found to be effective on different types of GRAM+ and GRAM- bacteria, viruses (including SARS-Cov-2), fungi, spores and moulds, in both in vitro and in vivo tests[23].

Simply replacing the lights with this type of device will allow you to increase the level of biosecurity of the environments, reducing any residual risks of contamination and maximizing their effectiveness.

Furthermore, these technologies can be integrated with IoT sensors powered over the Ethernet network (PoE = Power over Ethernet) which offer the following advantages:

- Low voltage connection, easy installation.
- It integrates the sanitizing light technology described above.
- Detection of presence, temperature, humidity, VOC (Volatile Organic Compound), ambient light, CO_2.
- Integrate indicator lights to support many cases of usage.
- They allow you to identify and show the level of occupancy of a room, define sanitation cycles, manage clinical paths and alerts.

3.3. *Healthcare Process Orchestration*

Whenever a clinical pathway is transferred from the hospital to the territory, it is necessary to adopt tools guaranteeing its governance, i.e., tools allowing effective

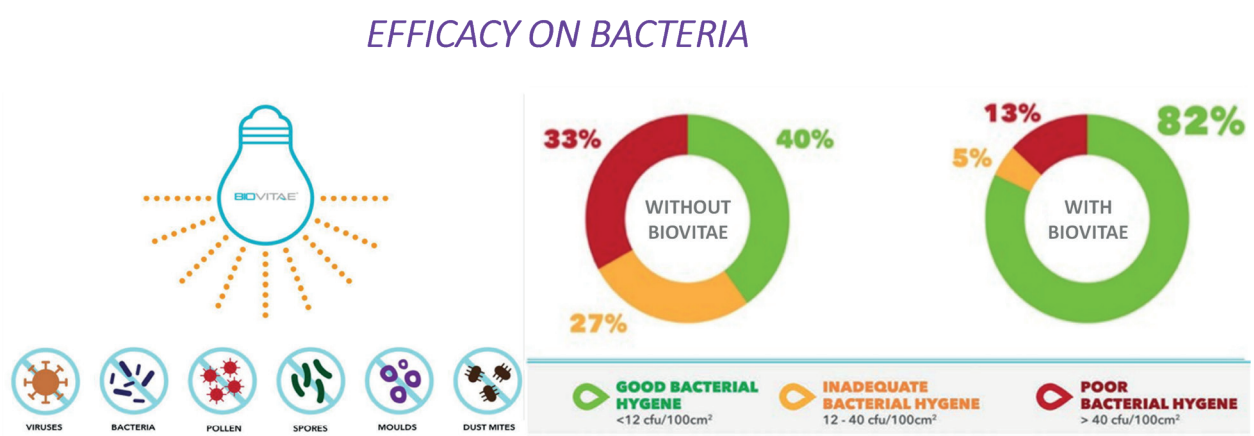

Fig. 5. Results of Biovitae lights application on bacteria.

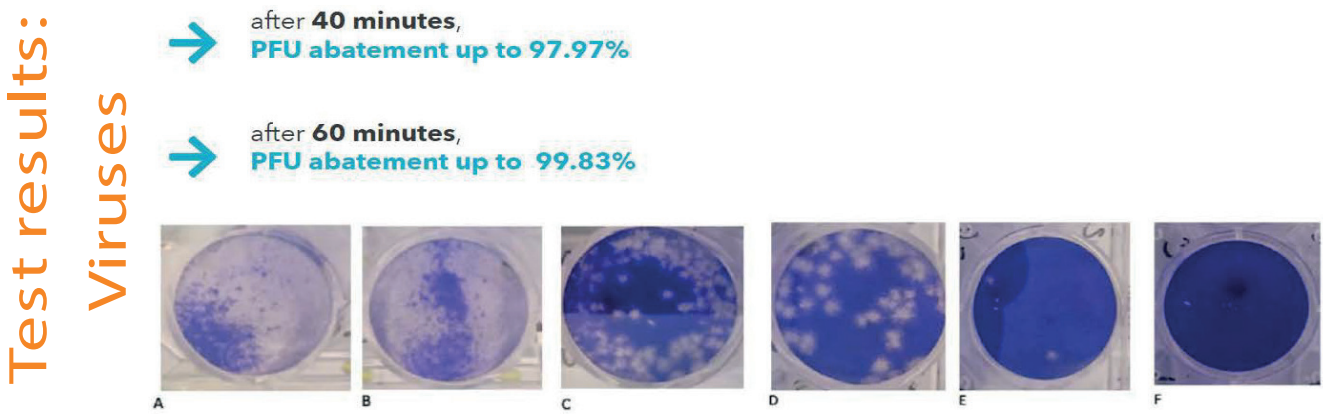

Fig. 6. Results of Bioviae lights application on viruses.

and timely execution, and synchronizing the activities among all the involved operators, increasing the related efficiency.

This level of synchronization – or "orchestration" – is achievable thanks to the use of technological layers already available today:

1. A common repository where to aggregate all the collected clinical data.
2. A common semantic scheme guaranteeing data meaning maintenance during interactions among all involved operators and systems.
3. A means by which the various information systems are able to share not only data and information, but also contextual elements such as events and metadata (ie data relating to data providing context description).
4. The description of the interactions among all involved operators through a standard notation allowing a correct and accurate description of the process and its implementation and synchronization.

Through this approach[24], it will be possible to implement a centralized and integrated tool through which taking care of home-patients: once a patient has been framed in one of the possible home-care pathways, it will be sufficient to create a new instance of the appropriate orchestrated pathway and all the involved systems and operators will be promptly and timely informed about what it is expected from them to do.

Furthermore, it will be possible to analyse the process performances in real-time: it will be possible to spot any bottlenecks, measure execution time of each pathway and constantly measure specific Key Performance Indicators (KPI) to ascertain that the provided service aligns with the requirements.

4. Conclusions

Infectious disease can be controlled, and hopefully prevented, through the implementation of surveillance and educational global programs in health care facilities and the creation of awareness in the general population.

In addition to that, clear global investment, development, and adoption of digital technologies may support worldwide health care system and health care providers to

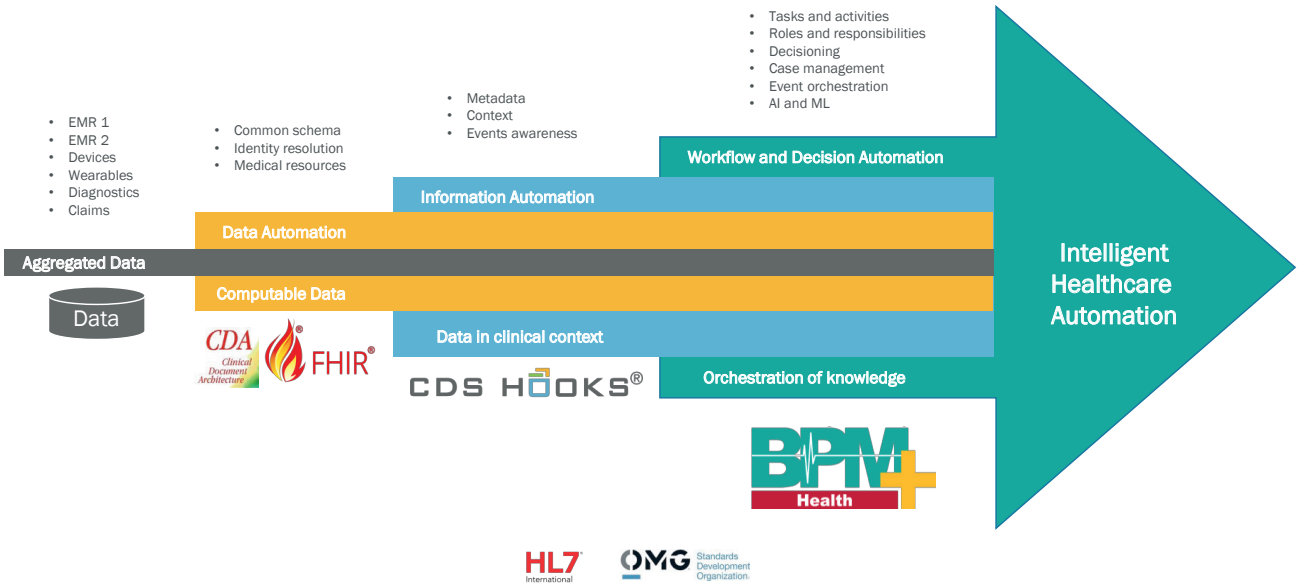

Fig. 7. Digital layers composing an intelligent healthcare automation system.

reduce/manage HAIs and prevent/control infections | whilst increasing/ensuring access to the home care programs to well-educated/engaged patients.

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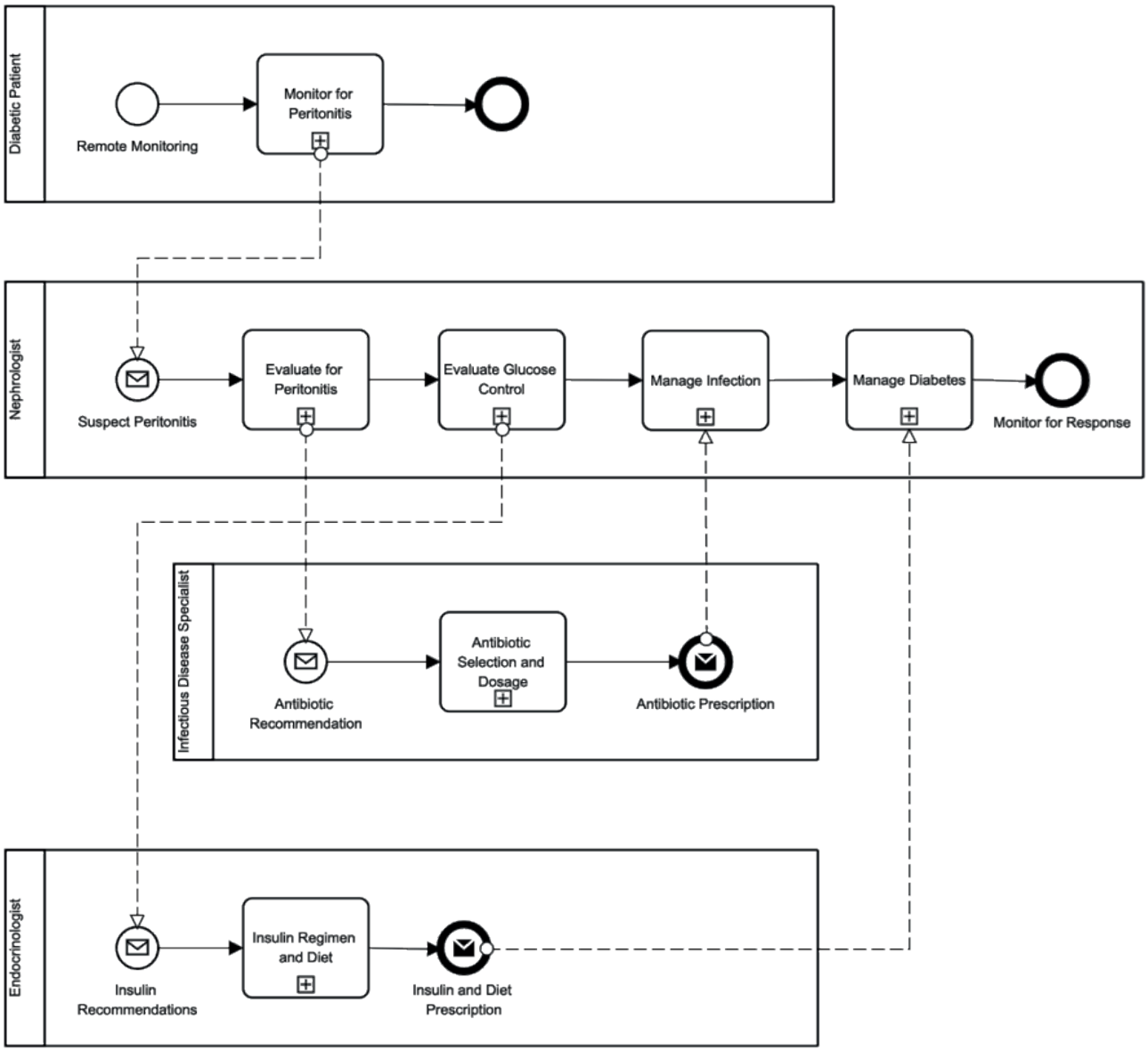

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Tetanus in War Victims in Afghanistan

Lesson from the Field

by Ornella Spagnolello, Mir Abdul Azim Shahir, Gina Portella, Giancarlo Ceccarelli, Martina Baiardo Redaelli*

Abstract
Tetanus represents a significant emergency in low-resource countries involved in crisis scenarios. The management of the disease requires strategies that take into account the lack of health facilities and the necessary tools. This field lesson taken from the experience of the NGO Emergency seeks to clarify the aspects connected with the management of tetanus cases in the setting of Afghanistan.

Keywords
tetanus, low-income countries, Afghanistan, infection, vaccination, surgery.

Tetanus is an acute, potentially fatal non-communicable infection characterized by generalized skeletal muscles spasm that can progress toward respiratory failure[1]. The causative pathogen, the spore-forming bacterium *Clostridium tetani*, is commonly found in contaminated soil and can enter the body trough cut or abrasion. Wounds with a significant amount of tissue injury are more likely to promote spore germination. Tetanus bacilli release tetanospasmin, a potent toxin which binds gangliosides within local nerves terminals and proceed to the ventral horns of the spinal cord or motor horns of the cranial nerves. The net effect is inactivation of the inhibitory neurotransmission of these neuronal pathways which results in increased muscle tone and widespread autonomic instability. The clinical syndrome that follows includes generalized body spasms, acute respiratory failure and hemodynamic instability and might last 4 to 6 weeks. The management of severe cases require intensive care support and the mortality rate is highly impacted by geographic variability[2,3].

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Tetanus is rarely occurring in developed countries thanks to widespread vaccination programs and prophylaxis recommendations. In war-torn countries such as Afghanistan, on the contrary, tetanus represents still a threat for the population. On one side, despite the availability of an effective and inexpensive vaccination since 1930s, vaccinations programs are still sparse in the country, especially in remote areas. On the other side, sadly Afghan civilians are constantly exposed to a major risk of getting involved in explosions, landmines and other tetanus-prone injuries considering the not-deescalating violent scenario. According to the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO), the estimated immunization coverage with Diphtheria-Pertussis-Tetanus (DPT) vaccine in Afghanistan in 2016 was only 73% with the first dose, while coverage with the third dose was just 65%[4,5].

After decades of war, Afghan public health care system still has consistent gaps, and a large part of the population does not have access to this service. Moreover, health care facilities are limited in number and in the level of care offered. Intensive Care Units (ICU) provided by mechanical ventilation are rare also in main cities of the country. Finally, the lack of an adequate health education among the vast majority of the population, prevents people from accessing basic healthcare services even where available. Emergency is an Italian Non-Governmental Organization (NGO) which provides free, high-quality healthcare to victims of war, poverty and landmines without any gender, political or religious discrimination, alongside training local medical staff. EMEGENCY'NGO has been running three hospitals in the Country (Kabul, Lashkar Gah and Anabah) and a network of 42 first aid posts since 1999. The Kabul Hospital is a 100-bed facility with a 6-bed ICU provided by mechanical ventilation. As a war surgery center, criteria for admission include penetrating trauma and all trauma patients in life-threatening conditions[6].

In the last 6 months, a total of 4 tetanus patients (n° 1 adults, n° 3 children) were recorded around all projects run by Emergency'NGO in Afghanistan. Median age was 15 years (min 10, max 30). All patients had no history of known prior vaccination for tetanus. Of them, 3 were initially admitted in Lashkar Gah and 1 in Kabul due to leg war injuries including 3 lacerated bruised shrapnel and 1 penetrating bullet wounds. All diagnoses were suggested by the recent history of exposure to conditions favoring tetanus and by the current clinical picture characterized by signs and symptoms of muscle spasms, muscle rigidity and pain. No confirmatory laboratory tests were performed.

The adopted management strategies consisted in:

1. A prompt wound care to remove debris or foreign objects that may be harboring bacteria in anaerobiosis condition.
2. Antibiotic treatment active against *Clostridium tetani*.
3. Other supportive therapies including treatments to provide breathing assistance and reduce muscle spasms.
4. Antitoxin therapy administration for passive immunization and vaccination with a standard tetanus vaccination to help im-

mune system in fighting the toxins.

Considering the difficulties of transferring critical patients along the country in a war scenario, only 1 patient with severe tetanus managed to be transferred from Lashkar Gah to the Kabul ICU. At the end, 2 patients of 4 finally got access to our ICU. Mortality rate was 25% (1 death in Lashkar Gah).

Some interesting points about tetanus management araised from our experience in the field.

First of all, despite our large volume of patients with tetanus prone wounds, this condition remains rather rare if an aggressive soft tissues debridement is immediately performed and if the patient receive standard prophylactic antibiotics according with our local protocol (Ampicillin plus/minus Chloramphenicol plus/minus Metronidazole). However, considering the lack of an out of hospital emergency care system and the unsafe scenario for transport especially from remote areas, most of our patients are presenting at the hospital way below the "golden hour". Indeed, our recent 6-month case series of tetanus underlies that the time from injury is a relevant risk factor for this condition. This could be explained not only by the chance of spore germination over time, but also by the patient's general conditions that can somehow promote this process. Tissue hypoperfusion in bleeding patients undergoing a long journey to our facilities can furtherly facilitate a local anaerobic environment that might stimulate spore germination.

Another consideration regards the general management of the most severe tetanus cases. ICU is essential as soon as clinical conditions deteriorates, and little can be done without mechanical ventilation and a continue full-parameter monitoring. Therefore, the early identification of these cases and the prompt transfer to an ICU-provided hospital is the first step in the chain of survival. Unfortunately, in Afghanistan this operation does not come without risks (lack of adequate ambulance services and trained personnel, the safety concerns both related to the infrastructures of the Country and the chance of going through active was zones) and most of the times the balance between benefits and risks is weighing towards the latter. Exposing a severely critical tetanus patient to a transfer in pour security and safety conditions is not evident at all, especially considering the low-resource setting and the expected limited outcome of these patients. In one case, our team decided to take the risk to transfer from Lashkar Gah to Kabul (more than 700 km distance) a 10-year boy that presented in our facilities following 5 days from tetanus symptoms onset. After 1 week of hospitalization in Lashkar Gah Hospital the child conditions rapidly deteriorated despite the full medical treatment was ongoing and a tracheostomy was already performed. The consent from the father was collected before the transfer, explain very well that this was a compassionate attempt and that the patients would have not survived without a further upgrade of the level of care (paralysis and mechanical ventilation) and that the son might have died during the journey. Air ambulance service with pressurized aircrafts notably is not available in the country. As expected, during the 14-hour journey by ambulance the team faced multiple challenges. Finally, the patient was admitted in Kabul Hospital and following more than 30 days of ICU care was discharged alive.

The natural history of the disease is often very long: 4 to 6 weeks. Not considering this could lead to excessively quick and abrupt changes in the treatment plan (which should be avoided) and deep frustration from the medical team.

The medical plan should be mainly tailored to respiratory and hemodynamic support together with prevention and treatment of complications of a long ICU stay. Indeed, the plan should not be deescalated to fast and prematurely despite staff natural expectations[7]. This point is particularly relevant in a hospital provided by only 6 ICU beds which is regularly managing Mass Casualties[8].

In conclusion, tetanus is a preventable disease which unfortunately represents a threat in Afghanistan both for the lack of an effective preventive strategy and the lack of ventilated and free of charge ICU beds in the country. A broad program of vaccination should be strongly supported, regardless the decrease of financial support and interest towards the country by the international community after august 2021. At the current stage, an aggressive surgical approach for tetanus prone wounds, together with empirical preventive antibiotic therapy are the main prophylactic measures to be taken on a regular basis[9]. Considering the challenges and the costs of managing severe tetanus cases in a low resource setting, early vaccination and immunoglobulin when feasible and sustainable should be administered to all patients[10]. but especially in those with additional risk factors (presenting following 24 hours from injury, in poor conditions).

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The Evaluation of a Scientific Magazine

by Raffaella Inglese, Siria Grasso*

Abstract
One of the main activities of an academic is the publication of scientific articles related to their research topics. Furthermore, having a good quality evaluation of research is of paramount importance to be able to access to an academic career, as well as the possibility of obtaining state funding. Therefore, to evaluate a magazine in this case, it needs to be in Open Access and periodical, beside having all the essential components as the ISSN number, keywords, an English abstract and a significant scientific committee. This paper aims to analyze all of these structural components and the content of a scientific magazine, by examining especially humanistic and scientific publications – focusing on relevant aspects for an objective evaluation, also from a multidisciplinary point of view –, and an interesting book of Martins Zaumanis published in 2021, "Write an impactful research paper: A scientific writing technique that will shape your academic career".

Keywords
magazine; academic evaluation; scientific articles; multidisciplinary magazine; academic publication.

One of the main activities of a researcher is the publication of articles related to their research topics.

The evaluation of the quality of research is essential to access the funding that can come, for example, through participation in European Projects. When public funding is obtained, it is necessary that the results of the research are then available to everyone free of charge and immediately.

A good Research Quality Assessment is also essential in order to undertake the academic career.

Therefore, in evaluating a Journal today it is very important that this journal is in Open Access, other fundamental characteristics are a regular periodicity, the ISSN code, the translation of at least the abstract into English, the presence of keywords and the presence of a relevant Scientific Committee, possibly international. The journals are mainly divided into two large groups: the scientific ones and the humanistic ones. The former are characterized by the Impact Factor, that is, an index resulting from a relationship between the citations of articles published in the previous two-year period and the total number of articles published in that same two-year period by the magazine. The citations of the articles flow into the Journal Citation

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Report, Scopus and the Web of Science:

- Science Citation Index Expanded covers more than 8,500 noteworthy journals spanning 150 disciplines. Coverage goes from the year 1900 to the present day.
- The Social Science Citation Index covers more than 3,000 journals in the disciplines of the social sciences. The range of coverage goes from the year 1900 to the present day.
- Arts & Humanities Citation Index covers more than 1,700 arts and humanities journals since 1975. In addition, 250 leading scientific and social science journals are also covered.
- Emerging Sources Citation Index covers over 5,000 science, social science and humanities journals.
- Book Citation Index covers over 60,000 books selected in an editorial fashion since 2005.
- Conference Proceedings Citation Index (CPCI) covers more than 160,000 science conference titles from 1990 to present.

For example, calculating IF 2018 for the journal under consideration:

75 2018
Citations of articles published in 2016-17 75
= 0.484
155 Total articles published in 2016-17

The journals of the humanistic type are instead organized into classes: in class A we find the most prestigious journals for each discipline, journals that have undergone a peer review process, which come out regularly, already present for several years, with abstracts in English etc.; to access Class A, a very documented request must be made.

An interesting article by Faggiolani and Solimine on the evaluation issue was published ten years ago on AIB Studi[1]. If we search for it on the page of Aib Studi, we can see various things: on the right where this magazine is indexed (ANVUR, DOAJ, SCOPUS), in the center the DOI, the abstract, all the important data, a graph with the downloads updated up to last month, the references and, lastly, how the article should be cited.

The article highlights that, for publications in the humanities, the monograph is often more significant than the single article and publication in a language other than English is penalized. Often the publications in the humanities are not in multiple hands and this greatly reduces the number of citations. Furthermore, for humanistic journals, the scientific value generally extends for a much longer time, even for many years. The importance of peer review is therefore upheld, although there are also problems in this practice. So perhaps the best solution would be a mixed approach that takes into account some "measurable" factors but also double-blind peer review (mutually unknown authors and evaluators). The article imagines that libraries could give some impetus to understanding the real impact of a publication on the rest of the scientific world, evaluating the existence of remains and the presence in catalogs of prestigious libraries, with methods such as the LCA (Library Catalog Analysis). Other authors, such as Figà Talamanca, launched themselves, twenty years ago, against the use of IF in mathematics, because "friends" quotes were

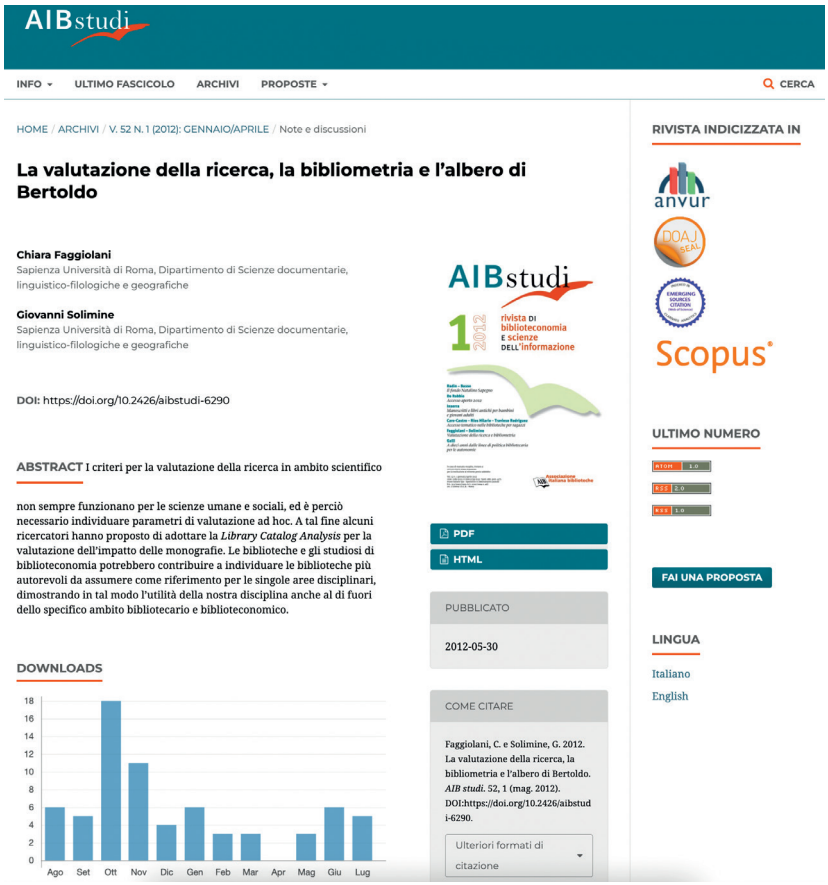

Fig. 1. C. Faggiolani e G. Solimine, 2012, La valutazione della ricerca, la bibliometria e l'albero di Bertoldo, *AIB studi*, 52, 1 (mag. 2012). DOI: https://doi.org/10.2426/aibstudi-6290.

also taken into account, or else "negative" quotes were included in the count. Ultimately, it is not certain that a large quantity necessarily also means quality[2].

According to Antonella De Robbio: "For the purpose of measuring the impact of an author's work within the scientific community, it is essential to start experimenting with new bibliometric techniques within the open archives together with the development of new" open "modalities aimed at satisfying the sophisticated needs for a correct evaluation of intellectual research productions. [...] Open Access opens up new frontiers, not only in the development of new generation bibliometric indicators focused on the single work or in any case on the author rather than on the periodical, but above all in terms of infrastructure useful for wide-ranging impact assessment"[3]. De Robbio also cites Daniel Torres-Salinas's 2009 study on LCA for monographs, which is the most popular product for human sciences[4].

In 2014, Simona Turbanti[5] in *Navigating the sea by Scopus Web Of Science and Google Scholar* describes the research – carried out in the two large citation databases, Web of science and Scopus, and in Google Scholar – of the scientific works of the professors and researchers of the

M-STO sector / 08, archives and librarianship, illustrating the method followed, the main differences in use as well as the limitations of the queried databases. WoS searches in over 12,300 journals, about 150,000 conference proceedings and 30,000 monographic publications, with a clear prevalence of titles from the North American area, while the 'younger' Scopus covers about 19,500 periodical titles, many of which from Europe, over 350 collections of monographs (and, starting from 2013, also single monographs), almost 5,000,000 conference papers and patents.

By consulting the Journal Citation Report, an annual report produced by the ISI (Institute for Scientific Information), where you can find the statistics on the number of citations that are made within a large number of technical-scientific journals, we can find, besides the Impact Factor, other indicators that allow us to understand the value of a magazine:

– *Immediacy Index*: measures how quickly an article from a journal is cited on average and how often the articles from that journal are cited in the current year.
– *Cited Half Life*: measures the average duration of citations of articles in a magazine in the current year, or rather the ongoing relevance of a publication.
– *Rate of Cites Index*: a quality index of the single article, the more the work is cited, the more significant its scientific value.

Citation Impact: results from the ratio between the number of citations and the number of published works. It directly refers to the usefulness that the publications of a nation, university, research structure or even of a single researcher have had in the scientific world.

For example, looking for the Scientific Journal in the JCR Coastal Engineering Journal we find the description of the journal, place of publication, periodicity, IF, with this brief description in English of the IFJ: "it is a journal-level metric calculated from data indexed in the Web of Science Core Collection. It should be used with careful attention to the many factors that influence citation rates, such as the volume of publication and citations characteristics of the subject area and type of journal. The Journal Impact Factor can complement expert opinion and informed peer review. In the case of academic evaluation for tenure, it is inappropriate to use a journal-level metric as a proxy measure for individual researchers, institutions, or articles".

In addition to the numerical data, for example, the IF of 2020 is 3216 (very high) and by eliminating self-citations, it is 2811, that is still very high. It is interesting to also see the trend of the IF in a graphic representation.

The classification of humanistic journals is an activity carried out by ANVUR (National Agency for the Evaluation of the University and Research System) for the purpose of calculating the indicators of the National Scientific Qualification starting from 2012. It is also needed for the purposes of accrediting PhD courses, in relation to requirement A4.3 starting from the XXXIII cycle (a.y. 2017-18), carried out exclusively for the sectors envisaged by the relevant legislation, that is, those that are part of the human and

social sciences and identified as "non-bibliometric". The classification is divided into 6 Areas:

- Architecture (Area CUN / VQR 8.a).
- Ancient, philological-literary and historical-artistic sciences (Area 10).
- Historical, philosophical and pedagogical sciences (Area 11.a).
- Legal Sciences (Area 12).
- Economic and statistical sciences (Area 13).
- Political and social sciences (Area 14)[6].

According to the ANVUR regulation, in order to be included in the list of class A scientific publications, a journal must ensure 'double blind' refereeing procedures (double blind review). On the contrary, the evaluation of research products through the VQR is only 'one-side blind review' because the evaluator is aware of the identity of the author. This lack of anonymity can lead to evaluating the author rather than the work.

Therefore, before deciding where to publish, a shrewd researcher chooses a Journal that has a good Impact Factor or is in Class A.

What happens instead for multidisciplinary journals, as in the case of our UniCamillus Global Heath Journal? That is, that they cannot be inserted within these two categories?

On the ANVUR website on 15/02/2016, therefore now 6 years ago, it is specified as follows: "Clarification on the treatment of multidisciplinary journals (such as Nature, Science, etc.) in bibliometric evaluation. The articles published in these journals will obviously be accepted for evaluation, and can be evaluated with the bibliometric method. As already indicated in the accompanying document to the publication of the Web of Science data and in the clarification note on the application of the bibliometric algorithm, in fact, the products published in these journals, during the bibliometric evaluation, will be evaluated using the thresholds of the SC a to which the majority of the articles cited by the product in the bibliography belong and those that have cited the product itself".

Therefore, the majority of the articles published in the journal will be considered for evaluation purposes.

An interesting little volume was recently published in the USA: Zaumanis M. (2021), *Write an impactful research paper: A scientific writing technique that will shape your academic career*, ISBN 13 9798680546949.

The author is a young PhD scholar in the USA, currently a researcher in Switzerland at Empa (a research group that is part of ETH).

The book aims to show strategies and tools in order to direct aspiring academics and authors towards the good writing of successful scientific articles. It is aimed at readers specialized in any scientific and humanistic field. The intention is to reach above all young researchers, even (but perhaps above all) without publications. The attempt to stimulate this type of audience masks the subtle criticism of the multidisciplinary academic world, at times so elitist and frightening as to seem unattainable. The text is divided into two parts.

1. Part 1: the Leap Writing Approach

LEAP academic writing approach is a schematic and systematic approach to the paper and an indication for selecting the right periodical in which to publish it. From

a linguistic point of view, reference is made to both the form and the vehicular language of the research. The importance and effectiveness of a scientific article reside in the message you want to communicate to the reader, not in the selection of high-sounding and superfluous terms that could only confuse. As for the choice of English as a vehicular language, it is undoubtedly the most sensible choice to reach a wider audience, nevertheless it is not necessary to have a high level of competence and command of it. As for the contents, every academic work deserves attention, as well as the idea behind it and the results obtained.

1.1. *The LEAP principle*

L: *Layout*, graphs and tables act as a fundamental support for the presentation of a scientific article. The images (simple and sometimes even self-describing) represent a great resource for the reader, as well as for the author. Reading becomes faster and more explanatory, as well as less demanding. Zaumanis provides the link to a site (https://peerrecognized.com) specifically for the creation of an article, it contains all the necessary tools in this regard.

E: *Explain the results*. While writing the article it is essential to always keep in mind the message you want to communicate; it must be direct and "easy" to understand, despite the complexity of the research carried out. Thus we move on to the explanation of the objectives, the results and the methods used (all this will be refined each time also from the linguistic point of view). The aim will be to make every reader come to the same conclusion. The importance of the sources and the bibliography consulted for the work should not be underestimated, it is important that users can verify the veracity of the research to deem it reliable (and then cite it and exploit it in other fields of study). Each initially set goal must find its own answer within the conclusion. The importance of consistency.

A: *Advertise*. The research requires a solid and coherent structure for a quality publication. This means that the structural order of the article will be relevant to the impact it will have on readers. Abstract and title will be essential to attract the reader's attention and encourage him to read the paper. This means that an easy-to-understand abstract will be more stimulating for users.

P: *Prepare for submission*. The quality of the paper will certainly be relevant for a publication. What is even more important, however, is the selection of the right newspaper or magazine in which to publish it. There are some important selection criteria in this regard; objectives and history of the magazine / newspaper; required content; access to the public; periodicity; ranking and reliability.

2. Part 2: Know the rules of the game

Eight rules to follow for publication with the aim of achieving success and a high level of academic resonance.

Publish a lot at the beginning of your career: it is important to create a certain frequency with regard to publications. If you do not make mistakes (sometimes fatal), the result will be optimal and the fame will grow more and more.

Publish high impact papers.

Co-author efficiently: it is difficult and extremely important, in the case of col-

laborations, to find valid and collaborative co-authors at the right point. Knowledge of the other is the basis of everything. This is followed by the elaboration and definition of the objective. The division of tasks: always summarize all the decisions made by making written outlines.

Build an online presence to keep up with the times and with the technological resources that fortunately we have available. Creating a name will not be easy but a good online presentation of your person is an excellent springboard for the publication and dissemination of your research works.

Prioritize journals over conference proceedings: it is good that a research work is completed before any presentation of the same, during a conference. The presentation of the results obtained then, during debates and conferences, will make it possible to reach an even wider audience than that of the journals.

Advertise in conferences importance of peer recognition. The 5 S pyramid for presentation. Substance (at the base of any scientific presentation); Structure (if a thesis must respect the intro-method-results-conclusions structure; in a conference the important thing is to be clear and direct with the audience); Show Stories (short, evaluable and interesting to get your message across to the public); Speaker (presence and attitude are very important).

Publish open access increases credibility, allows possible collaborations; greater visibility from large companies and publishers; sharing of knowledge; more quotes.

Review others' work. Be critical but always impartial! Criticism must be constructive, and must be able to produce more knowledge.

In conclusion, while reiterating that before deciding on which journal, even of a multidisciplinary type, it is better to publish, it is convenient to carefully consider:

- Editorial board.
- Reputation of the journal in its disciplinary field.
- Circulation of the magazine.
- Impact factor or belonging to class A.

Here are some useful databases with free or reserved access (to some universities) for information:

- *Journal of Citation Reports* (restricted access database) which evaluates scientific journals by processing statistics based on the analysis of citations.
- *Scopus Journal Metrics* (restricted access database) which provides a quick and transparent analysis of the progress of a journal.
- *Scimago Journal Rank* free database that generates statistics on article citations also at country level.
- *Elsevier Journal Finder* tool developed by Elsevier to select the most suitable journal starting from the abstract that is produced.
- *JournalGuide* free site useful for easy and reliable recognition of authoritative journals where from the title of a journal we can find links to: Journal website, Author instructions and Submission page.
- *ThinkCheckSubmit* site born from the initiative of some publishers to facilitate the researcher in choosing reliable journals.

Notes

1. Faggiolani C., Solimine G. (2012), *Research evaluation, bibliometry and Bertoldo's tree*, in «AIB Studi», 52(1) [available at https://doi.org/10.2426/aibstudi-6290].

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3. De Robbio A. (2009), *Open Access as a strategy for evaluating intellectual productions*, in «CIBER 1999-2009» Ledizioni, Milano, and "New Frontiers of Scientometry: Open Access as a Tool for Research Evaluation", CNBA Seminar. "The weight of research. Evaluating a humanistic subject: Architecture, for example", Bologna, 22 May 2009.

4. *Daniel Torres-Salinas Lybrary Catalog Analysis as a tool in studies of social sciences and Humanities: An exploratory study of published book titles in Economics 2009,* <eprints.rclis.org/15705>

5. Turbanti S. (2014), *Navigating the sea of Scopus, Web of science and Google Scholar: the launch of a research on the vitality of Italian archival and librarianship disciplines*, in «AIB Studi», 54(2/3) [available at https://doi.org/10.2426/aibstudi-10266].

6. See for Area 14 http://www.sisec.it/wp-content/uploads/2019/01/SISP_SISEC_Proposta-per-la-valuzione-delle-riviste-22-1-19.pdf proposed by Società Italiana di Political Science (SISP) and Italian Society of Economic Sociology (SISEC): in the conclusion "the integration of the two methods (peer judgment bibliometric indicators such as hindex) seems to us to offer the best system to arrive at a classification that holds together both the qualitative-reputational and quantitative-citational aspects".

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Cover image: *Hundreds of wars tearing apart so many parts of the world make the task of those working for global health even more difficult* (Gian Stefano Spoto).

euro 14,00
issn: 2785-3713
isbn 978-88-9295-550-9

www.tabedizioni.it