

Second assessment of migrant health needs Lampedusa and Linosa, Italy

Lampedusa & Linosa

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Lampedusa
& Linosa



Abstract

In 2011, there was an unexpected flow of migrants to Greece, south Italy and Malta; about 60 000 migrants from Africa debarking on the Italian island of Lampedusa alone, historically a prominent destination for migrants seeking to enter the European Union (EU). In consequence, the WHO Regional Office for Europe carried out a series of assessment and operational missions in these countries; in Italy, the islands of Lampedusa and Linosa, in particular, were in focus. The main objectives of the missions to Italy in 2011 were: to review the situation and the readiness of the Italian health system to deal with displaced populations, migrants and refugees arriving in the country as a result of North African crisis; and to assess the preparedness of the system for coping with the possible public health consequences of a potential massive influx from North and Sub-Saharan Africa to the islands of Lampedusa and Linosa. In this regard, at the request of the Ministry of Health of Italy, a second assessment mission to these islands took place on 16–19 May 2012 with the overall purpose of providing recommendations to the Ministry of Health of Italy on the development of preparedness guidelines for use by the local health authorities in the event of a large flow of migrants.

Keywords

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Acronyms



BOD5	five-day biochemical oxygen demand
CIE	Centre for Identification and Expulsion
CRI	Italian Red Cross
CSPA	Centre of First Assistance and Aid
EMS	emergency medical services
IOM	International Organization for Migration
MEDEVAC	medical evacuation
MDR TB	drug- and multidrug-resistant tuberculosis (resistant to isoniazid and rifampicin)
GP	general practitioners
MSF	Médecins Sans Frontières
NGO	nongovernmental organization
OCHA	Office for the Coordination of Humanitarian Affairs
PHC	primary health care
STP	Italian acronym for “temporarily present foreigner”
TB	tuberculosis
UNHCR	United Nations High Commission for Refugees

Glossary

Displaced population	Persons who have fled their country due to persecution, generalized violence, armed conflict situations or other man-made disasters. These individuals often flee en masse. (1)
Migrant	The term migrant is usually understood to cover all cases where the decision to migrate is taken freely by the individual concerned for reasons of “personal convenience” and without intervention of an external compelling factor. This term therefore applies to persons, and family members, moving to another country or region to better their material or social conditions and improve the prospect for themselves or their families. (1)
Refugee	A person, who “owing to well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country” (<i>Convention relating to the Status of Refugees, Art. 1A (2), 1951 as modified by the 1967 Protocol</i>) (1).

The definitions of ‘Displaced Population’, ‘Migrant’ and ‘Refugee’ have been extracted from the IOM Glossary on Migration

Executive summary

A meeting held in February 2011 between the Minister of Health of Italy and the WHO Regional Director for Europe within the context of the evolving crisis in North Africa initiated an intensive collaboration on the possible public health implications of migration. This led to a series of WHO Regional Office for Europe assessment and operational missions in Italy, particularly on the islands affected by migration. The main objectives of these missions were: to review the situation and the readiness of the Italian health system to deal with displaced populations arriving in Italy as a result of the crisis in North Africa; and to assess the level of preparedness of the Italian health system to cope with the public health consequences of a potential new influx of displaced populations, migrants and refugees to the islands of Lampedusa and Linosa¹ from North and Sub-Saharan Africa. With regard to the latter objective, an assessment mission took place on 16–19 May 2012 with the overall purpose of providing recommendations for the Ministry of Health of Italy for use by the health task force established to deal with the new wave of migration and support the coordination of health-preparedness efforts in south Italy.

In 2011, there was an unexpected flow of about 60 000 migrants from Africa to the island of Lampedusa, historically a prominent destination for migrants seeking to enter the European Union (EU). This route was closed in 2008–2009 through enhanced police efforts in Italy and Libya. During the 2011 crises, there were concerns about the welfare of migrants arriving on the island, which houses a single contention centre, which is designed to hold 800 people but which reportedly contained several thousand at the time of the mission. The United Nations High Commissioner for Refugees (UNHCR) had also expressed concern about the welfare of the many migrants with limited resources who were forced to sleep outdoors. Many were relocated to Sicily and to the Italian mainland where additional processing capabilities exist and some (about 1260 in 2011) were directed by the Italian Coastguard to the island of Linosa, which lies 35 miles north of Lampedusa. Those arriving in 2011 were mainly African migrants (mostly Eritrean and Somali) fleeing Libya and Tunisian migrants having left their home country because of political unrest.

In response to the 2011 migratory events and as a result of a European Council decision taken on 25 March 2011, the EU border management agency, Frontex, announced on 26 March 2011 that its two current maritime and terrestrial joint operations, Hermes and Poseidon Sea, which initially focused on the Pelagian Islands in the Mediterranean Sea, south of Sicily, were to be extended, Hermes to include the Region of Sardinia, and Poseidon Sea to include the island of Crete and the Aegean Sea. The North African crisis has created a moment of strategic importance in revising health-care preparedness and identifying gaps in this area.

The WHO Regional Office for Europe, in a joint effort with the Italian Ministry of Health, the Regional Health Authorities of Sicily, The National Institute for Health, Migration and Poverty (INMP/NIHMP), the Lampedusa Municipality and other key government officials involved in preparedness planning efforts, conducted several missions in (Lampedusa, Linosa and Sicily) between March 2011 and May 2012 to assess what was needed to cope with the emergency and any similar future scenarios. The mission teams used the WHO health-system framework (2) as a basis for their assessment of and recommendations on crisis preparedness on the islands, and the 2011 assessment report, *Increased influx of migrants in Lampedusa, Italy* (3), as reference basis. They also piloted the testing of the WHO *Toolkit for assessing health-system capacity for*

¹ Lampedusa and Linosa are Sicilian islands of the archipelago of Pelagie. They are located in the Province of Agrigento in the Italian region of Sicily, about 300 km south of Palermo, 220 km south west of Agrigento and about 260 km south east of Tunis.

crisis management (4), which incorporates a standardized methodology for self-assessments by countries to identify gaps and monitor progress in improving emergency preparedness. Fig. 1 exemplifies the result of a country assessment using this tool.

Fig. 1. Example of a health-system crisis preparedness assessment



Source: *Assessment of health systems' crisis preparedness. Poland. October 2009 (5)*.

In 2011, the public health conditions in the migrant centre on Lampedusa, with a capacity of 800 beds, deteriorated seriously due to the daily arrival of approximately 500 migrants. During that year, riots and clashes with the police occurred after migrants set the overcrowded centre on fire in protest of Italy's policy of forced repatriation.

Italy has been sending the bulk of the Tunisians who do not qualify for political asylum home but residents on the island have complained that they are overwhelmed by migrants and that they are bearing the entire EU immigration burden alone. As a result of violent disturbances on Lampedusa, including the afore-mentioned fire that damaged the migrant centre, the Italian officials took drastic response measures, declaring the island's port unsafe and transporting rescued migrants to Sicily.

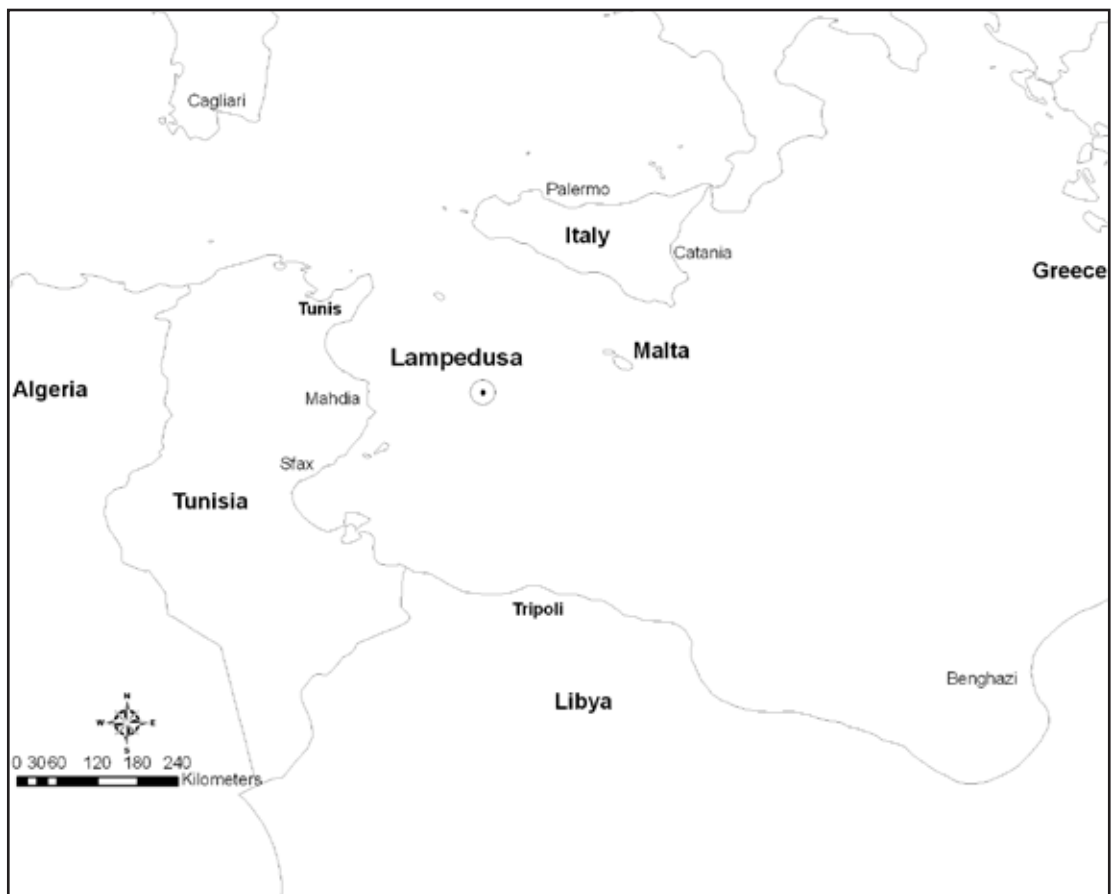
To respond to possible related health-care challenges, an immediate improvement of several existing facilities on Lampedusa is required. The missions revealed that the migrant centre, which is the first point of assistance, has been partially rehabilitated and that its current capacity is 250 beds. However, the island is faced with the urgent necessity to increase the quality and availability of, and access to, water and sanitation, and to improve the infrastructure. Contingency plans should be developed to deal with potential emergency scenarios resulting from an influx of migrants significantly exceeding the capacity of the current water and sanitation installations, and to secure health-care access for migrants while maintaining the quality of services for the resident population.

The report also addresses the possibility of a worst-case scenario, where Italy could be affected by a mass influx of displaced populations as the result of a severe humanitarian crisis.

1. Introduction

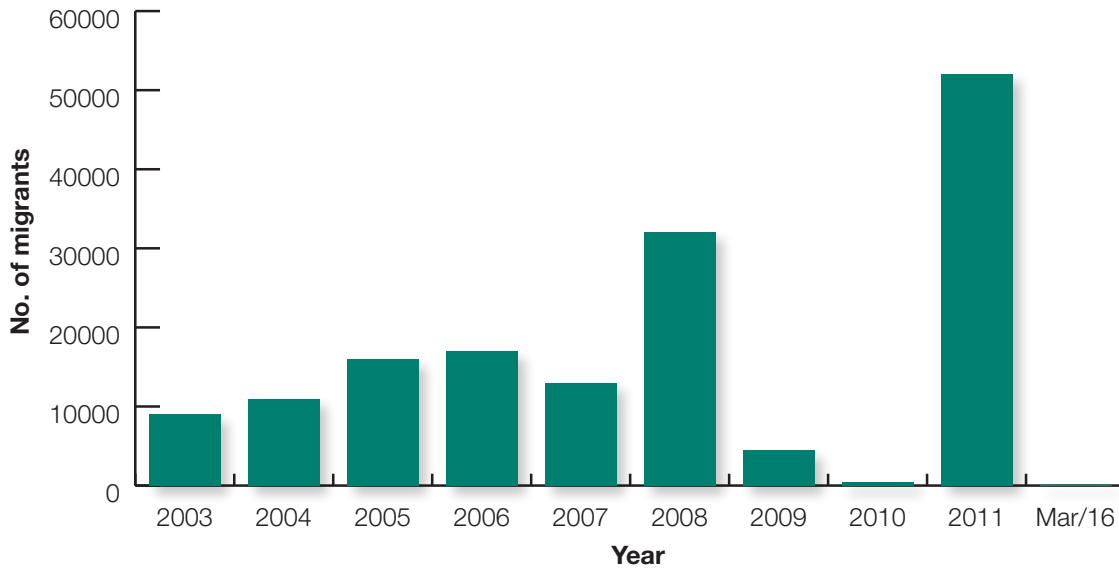
Due to its geographical position, Italy represents one of the points of entry into Europe for African migrants. Since the 1990s, the coastlines of Trapani (on the Italian mainland) and the island of Lampedusa in particular have been landing points for migrants coming from Tunisia. The whole of 2011 was characterized by the reactivation of a high flow of migrants from the North African coastline owing mainly to the political crisis and conflict in Libya. Most of the displaced populations and migrants arrived from the Maghreb area and Sub-Saharan Africa. Currently, Sicily is the hub for Mediterranean migrants, the majority of whom arrive through Lampedusa (Fig. 2).

Fig. 2. Italy (Lampedusa): point of entry into Europe from Africa



Over the past ten years, an increase in the numbers of migrants arriving on the island of Lampedusa has been registered, with spikes in 2008 (31 311 migrants) and 2011 (51 922 migrants) (Fig. 3). During 2009 and 2010 the numbers of arrivals fell sharply as the result of a bilateral agreement between Italy and Libya on irregular migration.

Fig.3. Annual numbers of migrants arriving at Lampedusa, Italy, 2003–March 2012



Source: data from the Regional Health Authority of Sicily.

The Italian Coast Guard, the Revenue Officers and the Navy are usually engaged in intercepting all migrant boats off the coast of Lampedusa and escorting them to the island where migrants are retained for the completion of identification procedures.

In 2011, as a result of the turmoil in North Africa, the movement of people towards Lampedusa resumed with 51 922 arriving during that year. About half of them were Tunisian males, aged 18–45 years, the remainder coming from Libya and Sub-Saharan Africa. Figs. 4 and 5 depict the routes taken by undocumented and mixed migrants, and the key routes from Africa to Europe, respectively.

The large numbers of undocumented immigrants and refugees arriving at Lampedusa and Sicily in 2011 raised serious concern.

Until 2009, Italy had an excellent system of migrant reception in place with specific procedures for those seeking asylum and those entitled to international protection. The so-called Lampedusa model, in particular, was characterized by a well-coordinated and synchronized process of reception in migrant centres, rapid identification and medical triage, and transfer by boat or aeroplane to other centres on the Italian mainland. By using this model, it was possible to limit the stationing of migrants on Lampedusa to not more than 72 hours, which prevented overcrowding and urgent problems related to water supply and sanitation.

The Italian authorities, particularly at the regional level, have solid experience in using this model in cooperation with the local administrations. The Ministry of the Interior and the network of municipalities have played the main role in developing policies and strategies in this field.

The migrant situation observed in 2011 (along with the downsizing of the Lampedusa migrant centre as a result of the decreased flow of migrants in 2009) was the basis for the critical situation on the island. Another contributing factor could have been that the Lampedusa model was not reactivated before May 2011, which meant that there was major overcrowding in March and April of that year with the arrival of about 8000 migrants (the maximum capacity of the Lampedusa migrant centre is 1200) (Fig. 6). In addition, many of the migrants stayed much longer than the 72 hours maximum established to avoid overcrowding. As of March 2011, major efforts had been made to manage

the migration crisis in south Italy by scaling up capacity, revising public health preparedness and identifying gaps.



Source: WHO/Severani

The fragility of the infrastructure on the island, with limited availability of and access to water and insufficient sanitary facilities for the migrants, generated a risky water and sanitation situation that could explode and generate outbreaks of disease not only among the migrants living in unacceptable hygienic conditions but also among the resident population of Lampedusa.

With the massive flow of migrants in 2011, Italian and European civil society were also confronted with the dramatic reality of large numbers of migrants dying while crossing Mediterranean waters. UNHCR has estimated that in the last decade more than 1500 people have died at sea trying to make the journey in poorly maintained and overcrowded boats.

With the return of warmer weather, migration is again on the rise. By May 2012, 13 migrant boats had moored on Italian shores, bringing 840 people, largely of Tunisian, Somali and Eritrean origin, to Europe; UNHCR had already recorded 64 deaths at sea, including several dozen Somali refugees who set sail from Libya at the beginning of the year in a vessel that disappeared. In late January 2012, the bodies of 12 women, two men and a baby, all presumed to be from the same boat, were washed up on the coast near Misurata.

2. Methodology of the assessment

The method adopted by the mission team to assess health-system crisis preparedness, in both 2011 and 2012, was based on the WHO health-system framework (Table 1), which is sectioned according to six key functions (Table 1, Box 1) (2).

Table 1. The WHO health-system framework

Functions	Overall goals/outcomes
Leadership and governance	Improved health (level and equity)
Health workforce	
Medical products, vaccines and technology	Responsiveness
Health information	Social and financial risk protection
Health financing	Improved efficiency
Service delivery	

WHO defines health systems as comprising all the resources, organizations and institutions that are devoted to taking interdependent action aimed principally at improving, maintaining or restoring health. In order to fulfil their purpose, health systems need to perform the key functions of the WHO health-system framework (2), details of which are found in Box 1.

Box 1. Functions of the WHO health-system framework: basis of WHO health-system crisis preparedness assessment

Leadership and governance (also called stewardship) is arguably the most complex function of any health system; it is also the most critical. Successful leadership and governance require strategic policy frameworks that are combined with oversight, coalition-building, accountability and appropriate regulations and incentives. In relation to crisis management, this means ensuring that national policies provide for a health-sector crisis-management programme. Effective coordination structures, partnerships and advocacy are also needed, as well as relevant, up-to-date information for decision-making, public-information strategies and monitoring and evaluation.

Health workforce (human resources for health) includes all health workers engaged in action to protect and improve the health of a population. "A well-performing health workforce is one, which works in ways that are responsive, fair and efficient, to achieve the best health outcomes possible, given available resources and circumstances". This necessitates the fair distribution of a sufficient number and mix of competent, responsive and productive staff. A preparedness programme aims to ensure that such staff represents an integral part of the health workforce by conducting training-needs assessments, developing curricula and training material and organizing training courses.

A well-functioning health system ensures equitable access to essential **medical products, vaccines and technologies** of assured quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use. Medical equipment and supplies for prehospital activities, hospitals, temporary health facilities, public health pharmaceutical services, laboratory services and reserve blood services needed in case of a crisis also fall under “medical products, vaccines and technologies”.

A well-functioning **health information system** is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health-system performance and health status. A health information system also covers the collection, analysis and reporting of data. This includes data gathered through risk and needs assessments (hazard, vulnerability and capacity) and those relating to early-warning systems and the overall management of information.

A good health-financing system ensures the availability of adequate funds for the health system, and its financial protection in case of a crisis. In addition to providing funds for essential health-sector crisis-management programmes, it ensures that crisis victims have access to essential services and that health facilities and equipment are adequately insured for damage or loss.

Service delivery is the process of delivering safe and effective health interventions of high quality, both equitably and with a minimum waste of resources, to individuals or communities in need of them. The crisis-preparedness process provided by the WHO health-system framework makes it possible to review the organization and management of services, ensure the resilience of health-care facilities and safeguard the quality, safety and continuity of care across health facilities during a crisis. (2)

The first assessment visit, conducted on 16–18 March 2011, addressed certain key elements of the 2011 crisis situation on Lampedusa. The second visit, which was conducted jointly with the Italian Ministry of Health on 27–28 March 2011, resulted in recommendations to the Ministry of Health and the regional health authorities on key strategic action relevant to public health response, such as: the establishment of syndromic surveillance; the development of tools for immunizing migrants; the creation of a memorandum of understanding between the Ministry of the Interior and the Ministry of Health to enhance collaboration on public health matters related to migration; the inclusion of migrant centres in the national surveillance network; the sharing of data; and the issuance of temporarily present foreigner (STP)² identity cards to migrants, granting them full access to health-care services on a par with the Italian population.

To prepare for an increased influx of migrants, the Ministry of Health and representatives of the Ministry of the Interior, the Health Authority of the Sicily Region, INMP/NIHMP and WHO visited Lampedusa on 11 April 2012. As a result, the Italian Minister of Health, Professor Renato Balduzzi, decided to establish a special medical emergency task force to support public health preparedness efforts on the island.

On 16–19 May 2012, an assessment was conducted in Lampedusa and Linosa by representatives of the Regional Health Authority and WHO to determine public health risks and vulnerabilities on the islands, as well as preparedness efforts, and to provide the afore-mentioned ministerial task force with recommendations on ways to strengthen coordination and service provision in the event of a new wave of migrants from North Africa. This assessment was carried out using the *WHO toolkit for assessing health-system capacity for crisis management* (4). This standard, e-based methodology

² STP is the Italian acronym for temporarily present foreigner.

is easy to administer and can also be used by health authorities to assess health-system preparedness at geographic points recognized as migrant landing sites with the aim of identifying gaps and monitoring progress in improving emergency preparedness.

The assessment was organized according to the key components related to each function of the WHO health-system framework (2), which allowed a structured approach to summarizing the findings (Table 2).

Table 2. Key components of the WHO health-system framework, by function

Functions	Key components
Leadership and governance	<ul style="list-style-type: none"> Legal framework for national multisectoral emergency management Legal framework for health-sector emergency management National multisectoral institutional framework for multisectoral emergency management Institutional framework for health-sector emergency management Health-sector emergency-management programme components
Health workforce	Human resources for health-sector emergency management
Medical products, vaccines and technology	Medical supplies and equipment for emergency-response operations
Health information	<ul style="list-style-type: none"> Information-management systems for risk-reduction and emergency-preparedness programmes Information-management systems for emergency response and recovery Risk communication
Health financing	National and subnational strategies for financing health-sector emergency management
Service delivery	<ul style="list-style-type: none"> Response capacity and capability Emergency-medical-services (EMS) system and mass-casualty management Management of hospitals in mass-casualty incidents Continuity of essential health programmes and services Logistics and operational support functions in emergencies

Semi-structured interviews were held with key government officials involved in preparedness and contingency planning for various scenarios.

An assessment of water supply and sanitation on the islands of Lampedusa and Linosa was carried out through on-site observation of the drinking-water sources, the desalination units and the wastewater treatment plant, as well as through rapid sanitary inspection of the water-storage reservoirs. In addition, interviews were carried out with representatives of the local health authorities, the water-supply operators and the migrant centre. Moreover, the following documents were used, among others, as reference material on assessing water supply and sanitation:

- *WHO Guidelines for drinking water quality. Fourth edition (6)*;
- *A guidance for UNHCR field operations on water and sanitation services (7)* (Tables 1 and 4 in particular);

- *Humanitarian Charter and Minimum Standards in Humanitarian Response* (The Sphere Project) (8);
- *European Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment*,(9);
- *Safe drinking-water from desalination* (10);
- *WHO Technical notes on drinking-water, sanitation and hygiene in emergencies* (11) (Chapters 3, 5, 10, 11 and 12).

3. Findings of the assessment

3.1 Leadership and governance

3.1.1 Legal framework

In Italy, all the key components of leadership and governance in relation to preparedness for coping with the consequences of a massive influx of displaced populations are addressed through the Italian Ministry of the Interior. The Prefect of Palermo, the Special Commissioner for Immigration Emergency and the Civil Protection Department are in charge of coordination.

Legal frameworks and institutional arrangements are in place, showing a good level health-system readiness to address public health challenges triggered by a mass influx of migrants. There is an effective legal framework for multisectoral crisis management and public health laws and regulations allow for any extraordinary measures necessary to effectively manage a public health emergency.

In addition, while the Italian Government has implemented European directives related to immigration, Law no. 189 of 30 July 2002 amends the 1998 immigration law, introducing new clauses. The most significant aspects of this Law are as follows.

- Each year, the Prime Minister will define the number of non-EU workers who can be admitted into Italy during the following year.
- There are no limitations to entry into Italy for highly skilled workers (university lecturers and professors, professional nurses, etc.).
- Other non-EU immigrants will be allowed entry into Italy only if they have a “residence contract”.
- A specific immigration office is to be set up in each province of Italy to oversee the entire recruitment procedure for immigrant workers on both open-ended and fixed-term contracts.
- Residence permits issued for reasons of employment will last for a maximum of two years.
- After six years of regular residence in Italy, non-EU citizens with the necessary economic requisites will be able to receive a permanent permit.
- Undocumented immigrants will be accompanied to Italy’s borders and deported. Deportation will be immediate and will not be suspended even if the immigrant appeals to the courts.
- Suspected undocumented immigrants will be taken under police escort to CIEs where the authorities will try to discover their identity within 60 days. If they are found to be undocumented immigrants, they will be ordered to leave the country within five days (a period they must spend in the centre). If they fail to do so, they will be kept under arrest for between six months and a year or accompanied to the borders and deported. If undocumented immigrants return to Italy, they will be arrested and tried by the courts.
- Non-EU minors living in Italy will obtain residence permits once they reach adult age (18 years) provided they have lived in Italy for at least three years and have attended a social and civil integration programme provided by a public or private organization. This organization must also guarantee that they have accommodation and attend school or are in employment. The number of residence permits issued on these conditions will be subtracted from the pre-defined number of total annual permits.

The Regional Government of Sicily³, having responded to past crises resulting from the massive influx of migrants, issued several legal directives aimed at providing “essential and continuous treatment” to the immigrant population. These include the following.

- Regional Law No. 5/2009: “Norms for the reorganization of the Regional Health System”, Art. 28: “Health-care assistance to foreigners from non-EU countries”.
- Regional Law No. 55/1980 and modifications: “New provisions in favour of immigrant workers and their families”.
- Regional Law of 2 March 2009: “Regional programme of social and socio-health policies 2010–2012”, covering activities suggested for the period 2010–2012.
- Administrative Decree on the health councillorship of the Sicilian Region No. 1270 of 4 July 2003: “Guidelines on the health care of foreigners from non-EU countries”.
- Administrative Decree no. 30447 of 28 October 1999: “Recognition of the Regional Reference Centre for Medical Care of Travellers, Tourists and Migrants”.
- Sicilian Region Circular of 17 April 2008 (prot. DIRS/2/0781) following the Note of the Ministry of Health of 19 February 2008: “Clarifications regarding health-care assistance for new EU citizens living in Italy”.
- Sicilian Region Circular of 11 April 2011 (prot./servizio 9/no.33603) following the Note of the Ministry of Health of 31 March 2011 (prot. 5875): “Emergency influx of North African migrants in Italy, animal-health-related risks”.
- Sicilian Region Circular of 18 March 2011 (prot. 26694): “Health assistance programme for foreigners landing on Lampedusa”, defining the intervention strategies at the time of debarkation according to the number and frequency of landings.

The institutional framework foresees a multisectoral emergency-management structure under the Special Commissioner for Immigration Emergency who will coordinate the action to deal with the logistical challenges of managing emergency immigration on Lampedusa, the transfer of migrants to hospitality centres on the mainland and repatriation.

The preparedness and management efforts related to the current situation on Lampedusa are coordinated and led by the Civil Protection Department, which falls under the Prime Minister’s office. The Ministry of the Interior leads the management of migrants and is supported by the Police, the Armed Forces, the Ministry of Health, the Regional Health Authorities, and INMP/NIHMP. On Lampedusa, the Ministry of the Interior is also supported through a legal agreement with UNHCR, the International Organization for Migration (IOM), the Italian Red Cross, the Italian branch of the Order of Malta, and the nongovernmental organizations (NGOs), Médecins Sans Frontières (MSF) and Save the Children. Coordination remains the main challenge at any level of an emergency.

3.1.2 Coordination at the local, regional, national and international levels

During the 2011 emergency on Lampedusa, coordination was a source of concern to the health authorities due to the relevant number of partners involved, which necessitated defining roles and responsibilities.

Local-level coordination

In Note DGPREV 0008636-P of 7 April 2012⁴, the Ministry of Health provided the operative protocol for syndromic surveillance and prophylactic immunization during a high influx of migrants and

³ Italy is divided into administrative regions, which are responsible for providing and managing health care. The Region of Sicily has administrative autonomy in the areas of taxation and legislative capacity.

⁴ Note of the Ministry of Health of 7 April 2012 (DGPREV 0008636-P available (in Italian) on request to the WHO Regional Office for Europe.

defined first-level assistance activities. The Civil Protection Department, in its Note of June 2011 on coordination⁵ recommended that:

- the management of activities related to the delivery of first aid and health care to migrants be coordinated by the PHC centre on Lampedusa under the jurisdiction of the Regional Health Authority of Palermo (ASP Palermo 6);
- migrants arriving on Lampedusa be assessed by the medical staff of the PHC centre, supported by INMP/NIHMP, IOM, the Italian Red Cross (IRC), MSF, the Order of Malta, Save the Children and UNHCR;
- assessment consist of triage to identify major health emergencies and implement the first-level assistance activities defined in Ministry of Health's protocol on syndromic surveillance and prophylactic immunization;
- after registration with the police, migrants who appear to be in a reasonable state of health be assessed a second time by the health personnel at the Centre of First Assistance and Aid (CSPA).

Fig. 7 illustrates the contingency plan elaborated by the Italian Ministry of Health and the Italian Civil Protection Department to manage a high influx of migrants arriving at Lampedusa, including those in need of health care. The plan shows how the local health strategies are incorporated in the Italian legal framework.

The 2012 assessment was conducted in the absence of an emergency and without migrants in the centres. In 2011 contingency plans were elaborated by the Civil Protection Department and adapted to the evolving situation in North Africa.

The areas identified in 2011 for the initial reception of migrants on Lampedusa have been dismantled and the municipality is not planning their reactivation because of the lack of sanitation and hygienic facilities required to host migrants.

Regional-level coordination

On 3 March 2011, the Health Authorities of the Sicily Region established a coordination table with the participation of all directors of health services in the region, their goal being to develop a modular emergency contingency plan for the provision of effective health services and coordinate response operations in the event of an emergency on Lampedusa.

National-level coordination

In February 2011, the reactivation of migration from northern African coast lines towards Lampedusa raised the concern of the Italian Central Government, which took preparedness and response measures, which were coordinated mainly by the Prime Minister's Office and the Council of Ministers.

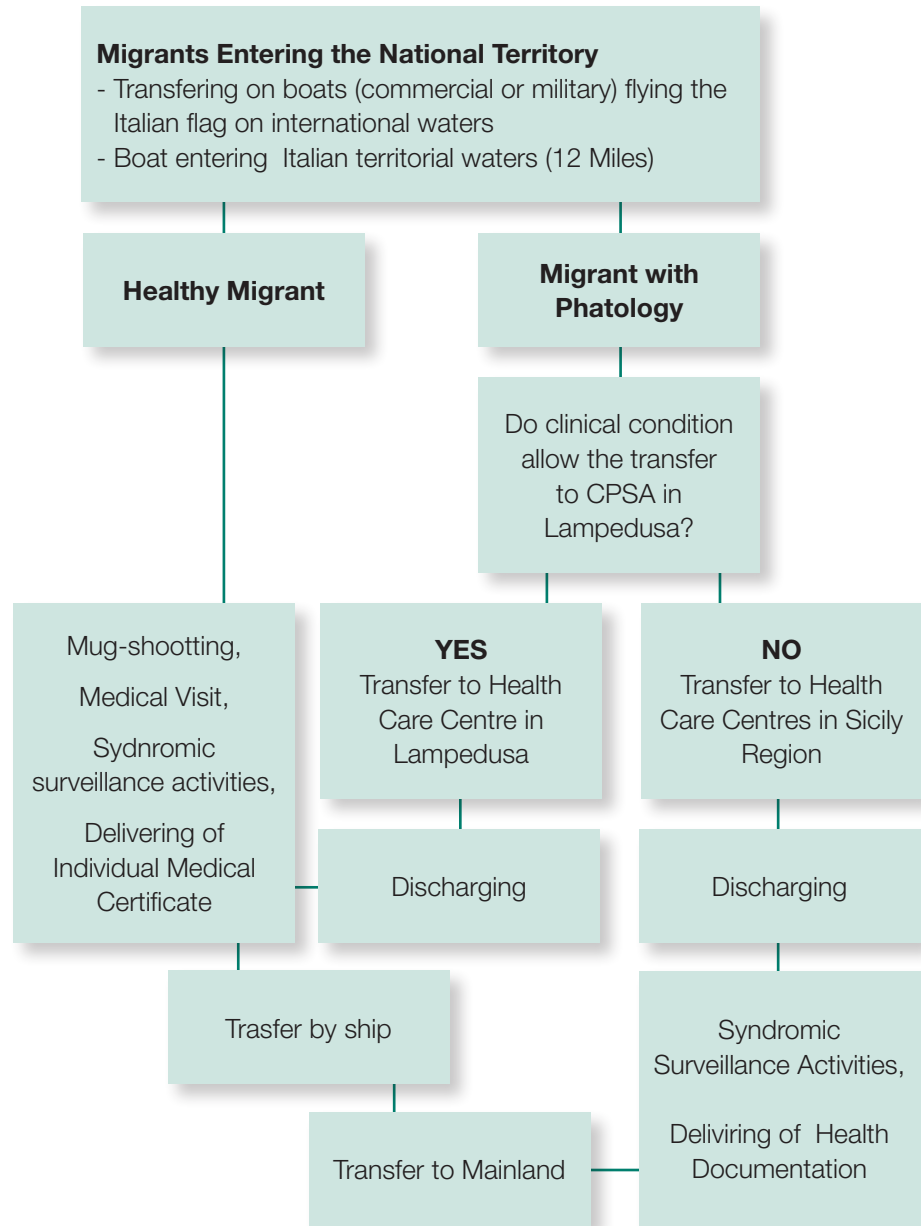
International-level coordination

On 13 April 2011, the Ministry of Health of Italy organized a high-level meeting in Rome, Italy, on the increasing movement of displaced populations in the Mediterranean countries of the European Union in collaboration with EU (represented by the European Commissioner for Health and Consumer Policy) and with the support of the WHO Regional Office for Europe. The Ministers of Health of Greece and Malta, and representatives of Cyprus, Hungary (holder of the EU Council Presidency) and Spain participated in the meeting, the aim of which was to:

⁵ Note of the Civil Protection Department of June 2011 available (in Italian) on request to the WHO Regional Office for Europe.

- review the health situation and initiatives taken in North Africa by Italy and other European countries, and to examine the impact of migration on health systems and pre-existing plans;
- identify action that it would be most useful (and urgent) to take in order to ensure the highest possible level of preparedness;
- identify forms of partnership and coordination that would optimize the results of efforts to ensure maximum health protection for the European population and for migrants;
- identify what role might be played by international institutions in support of national efforts.

Fig. 7. Contingency plan for management of migrants on arrival at Lampedusa



Source: Italian Civil Protection Department.

In addition the Government and the Parliament were working on improving coordination, both internally and externally⁶.

⁶ Note of the Ministry of Health of 7 April 2012 (DGPREV 0008636-P available (in Italian) on request to the WHO Regional Office for Europe.

Following the Treaty of Benghazi, signed between Italy and Libya in August 2008, other bilateral agreements relating to irregular migration have been made, namely:

- the Memorandum of Understanding of 17 June 2011 between the Italian Government and the National Transitional Council of Libya reaffirming their collaboration on counteracting irregular migration;
- the Memorandum of Understanding of 3 April 2012 between the Italian government and the National Transitional Council of Libya reaffirming their collaboration on counteracting irregular migration with a focus on security.

3.1.3 Centre for First Assistance and Aid

A site visit was conducted to the Centre for First Assistance and Aid (CSPA) on Lampedusa (Fig. 8). Basically, the Centre carries out the work of the former Centre for Identification and Expulsion (CIE). It is a dedicated, closed “detention” facility under police guard and administered by the Italian Ministry of the Interior. CSPA, which has a capacity of 800 beds that can be expanded to 1200 in case of an emergency, was not in operation at the time of the visit. Tunisian migrants opposing repatriation had set fire to the Centre in August 2011 and reconstruction was ongoing (Fig. 9). It was estimated that the work would be completed by May 2012. Capacity was reduced to 250 beds in the interim.

Fig. 8. Migrants at CSPA, Lampedusa, March 2011



Photo: WHO/Santino Severoni.

This facility will be operated by Cooperativa Lampedusa Accoglienza, a private contracting company, with which an agreement to this effect was signed by the Ministry of the Interior during the second assessment mission. The operator will provide assistance to the migrants at CSPA in the form of accommodation, personal supplies, health care (basic and emergency, or referral to specialized health centres), psychosocial assistance, cultural and linguistic mediation, catering, cleaning and environmental hygiene services. The operator is required by law to have an outpatient post within CSPA. At the time of the visit, neither the capacity of the health outpost nor the number of health workers that would be deployed by the operator were known. As per the Directive of the Civil Protection Department of April 2011, the activities of the health workers at the CSPA outpost are to be coordinated by the local health authorities with which they should liaise concerning cases

involving the need for emergency health care. Emergency cases are referred to the island's primary health-care post and those requiring specialized treatment are referred to hospitals on the closest island (Sicily) via helicopter.

Fig. 9. A pavilion at CSPA after the fire in August 2011



Photo: WHO/Santino Severoni.

The mission team noted that retaining migrants in this closed detention centre for prolonged periods might be associated with an increased demand for psychosocial support services.

A visit was also conducted to the centre established in Linosa, an island 35 miles north of Lampedusa with a local population of 450 inhabitants, reachable by ferry, police and coastguard boats in 1½ hours.

On Linosa, a cultural centre belonging to the municipality has been adapted to receive migrants; in 2011, 1260 debarked on the island. The centre was seriously limited in terms of basic equipment, hygienic/sanitary services and necessary food supplies; migrants sleep on rubber mattresses on the floor. When migrants land on Linosa, the private operator (contractor) at CSPA on Lampedusa deploys 2–3 staff to attend them.

The visit to the centre revealed major deficiencies justifying the recommendation not to use it before reconstruction work has been carried out, the necessary equipment installed and the required services and personnel put in place.

3.2 Management of human resources for health

Health care for legal immigrants is provided through public or private accredited institutions of the regional health services and volunteer centres, which are identical with those providing care and assistance to Italian citizens.

Undocumented migrants, on the other hand, receive hospitality and health care in centres that are often managed by major catholic or lay voluntary associations.

Health care is also provided within the facilities that accommodate and assist immigrants, under the coordination of the Ministry of the Interior. These facilities are divided into three types:

- reception centres with the capacity to guarantee first aid to undocumented migrants;
- reception centres for asylum applicants; and
- identification and expulsion centres that are used for the detention of undocumented migrants awaiting deportation.

A foreign national whose presence in the country does not conform with the rules pertaining to entry and residence is entitled to benefits provided by NHS by having a temporarily present foreigner (STP) health insurance card, which covers:

- ambulatory care and hospital emergency or essential treatment;
- preventive medical interventions (international prophylaxis and infectious diseases vaccinations), with particular focus on protecting child health;
- social protection of pregnancy and motherhood.

The STP health card guarantees the anonymity of the owner and it is valid for six months. It is renewable and identifiable by code.

Lampedusa has a primary-health-care (PHC) centre (polyclinic) with only day-time hospital capacity. The resident medical staff is highly qualified and experienced and includes a health director, three doctors and five nurses. In addition, the centre has 19 specialists operating from Mondays to Fridays, a first-aid unit operating 24/7 that covers the needs of both Lampedusa and Linosa, a hyperbaric chamber and, during the summer months, a day centre for the intellectually disabled. It also has a small surgery with cardiology and radiology capacity, which will soon be expanded to include a computed tomography (CT) scanner and a nuclear magnetic resonance (NMR) scanner.

The health needs of the Lampedusa and Linosa communities are also supported by the presence on each island of a general practitioner (GP), an emergency doctor and a nurse. Lampedusa also has a paediatric GP. The emergency service (118) has a resuscitator and a nurse on standby and also provides assistance in cases of medical evacuation (MEDEVAC).

During crises the limited number of health professionals in the Lampedusa health system would be a critical bottleneck. For this reason, in 2011, the Regional Health Authority activated a protocol on surge capacity with a view to expanding the health workforce for emergency response on Lampedusa. The protocol foresees the deployment of additional doctors and nurses to the Lampedusa PHC centre and to areas of migrant arrival on Sicily and Linosa. A second helicopter has been put on standby on Lampedusa to support a higher demand for MEDEVAC.

The assessment of the PHC centre on Lampedusa revealed the efficiency of the capacity available to meet emergency needs. The management of the PHC centre is strongly supported and empowered by the Regional Health Authority and, therefore, able to play a leading role in coordinating emergency health-care assistance in accordance with the directives of the Civil Protection Department.

The same capacity was not observed on the island of Linosa where the Linosa Cultural Centre health facilities appeared to be basic and only just sufficient enough to support the needs of the

small population (450 inhabitants). Health personnel are represented by a GP and an emergency doctor (118). The latter post is covered by doctors present on the island for one-week shifts.

During an emergency influx of people, the system can become stressed. It faces the challenge of coping – with a limited capacity for an undefined, extended period of time – with both facility and installation maintenance and a substantially greater patient load.

Fig. 10. Exterior and interior of Linosa Cultural Centre adapted to host migrants



Photo: WHO/Matteo Dembech.

3.3 Medical products, vaccines and technology

3.3.1 Medical supplies and equipment for emergency-response operations

The Regional Health Authority, the Civil Protection Department, INMP/NIHMP and The Italian Red Cross have additional deployable health staff, stocks and supplies that can be mobilized to meet health needs in an evolving crisis situation. Equally, the health centres are well stocked with emergency supplies.

Extra laboratory and diagnostic capacity for diagnosing communicable diseases and tropical infectious diseases might be required if rare diseases are detected. In this connection, WHO technical support might be required to identify reference laboratories and facilitate the shipment of samples for laboratory testing.

Provisions exist to ensure that migrants receive medications and medical supplies; basically, displaced people have the same entitlement to receiving treatment and pharmaceuticals as Italian citizens. There are sufficient vaccine stocks to ensure the essential immunization coverage of displaced people. In 2011, the Ministry of Health issued an order relating to the immunization of migrants to be endorsed by all regional health authorities and services.

3.4 Water supply and sanitation

3.4.1 Current water supply on Lampedusa

General conditions

Lampedusa has minimal natural water resources for the production of drinking-water: it is either produced locally by means of desalination or is imported, mainly from Sicily. Careful planning and control of the water supply is crucial to reducing health risks from water scarcity. This is especially linked to increased demand and weather conditions, which make the ferrying of water to the island challenging, and result in the need to restrict and prioritize water use.

Desalination

The main desalination plant on Lampedusa was built in 1974 with a design capacity of 900 tons of water per day. The desalination technology is thermal, by flash distillation. The current production capacity is approximately 450 tons below design capacity, the reason being that one desalination chamber is out of service due to technical failure. With a population of 6300, and a production capacity of less than 75 litres per day, the island needs to find a way to increase water supply. Currently, two desalination chambers are in operation.

At present, it is estimated that the plant supplies approximately 10% (in summer) to 40% (in the winter period) of the drinking-water for the population on the island. The remaining 60% (in winter) to 90% (in summer) of the required water is delivered by ferry from four main areas: Porto di Augusta, Palermo (Sicily), Napoli and Regione Calabria.

Site observation at the desalination plant (Fig. 11) and interviews with the plant operators revealed the need to improve the maintenance and monitoring of the basic water-quality parameters. Health risks can be associated with the current situation. The report contains a number of recommendations to reduce these.

Transportation of drinking-water by ship

Drinking-water is collected from four sites (Porto di Augusta, Palermo (Sicily)), Napoli and Reggio Calabria) and transported to Lampedusa by at least four different vessels (Luca Levoli, Stella di Lipari, Jeranto, and levoli Sky). No information was available about the ships and their storage equipment, or about how long it takes the vessels to reach Lampedusa.

Fig 11. Desalination chambers, Lampedusa, 17 May 2012



Photo: WHO/Enkhtsetseg Shinee.

The Chemical Analysis Centre (Centro Analisi Chimiche) in Augusta (Sicily) presented the mission team with analytical certificates of the water charged in the four ships. The analyses had, in all cases, been performed no later than one day after sampling and covered temperature, colour, odour, free chlorine, faecal coliform and total coliform. The values were within the norms of the WHO *Guidelines for drinking-water quality. Fourth edition* (6). The considerable distance between the point of loading and the point of unloading, the high temperature in the storage tanks, which will lead to a comparatively quick degradation of free residual chlorine, and the possibility for contamination during the voyage and different operations, make it imperative to check the quality of the water upon receipt in the port of Lampedusa, as currently performed by the local health authorities.

Storage of drinking-water

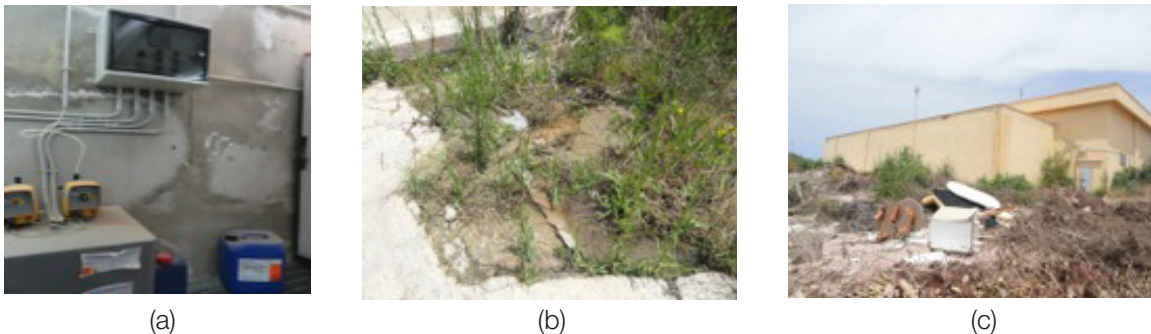
There are six water-storage/distribution reservoirs on Lampedusa. One of these was new at the time of the visit and not yet in use; another, which is located close to the centre for migrants, was dysfunctional and had been taken out of the distribution system. The mission team visited three of the remaining four operational reservoirs (due to time constraints the fourth could not be visited).

- Reservoir 1 receives water from the desalination unit, as well as ferry-shipped water. At the time of the visit, chlorination was not being carried out due to failure of the disinfection device (Fig. 12(a)).
- Reservoir 2 of 5000 m³ receives water only from the desalination plant. A sanitary inspection revealed a risk of contamination due to the presence of stagnant water (Fig. 12(b)), leakage, lack

of sealing, poor cleaning practices, little or no maintenance and no disinfection of reservoir water. The water from reservoir 2 is delivered by truck to households and the migrant centre.

- Reservoir 3 of 3000 m³ is located uphill from reservoirs 1 and 2. It receives water from 1 and 2 and distributes it by gravity to the consumers. An automatic chlorination device and chlorination control board (alarm) have been installed in the reservoir. The sanitary inspection of reservoir 3 was unsatisfactory: it was surrounded by a construction plant and general waste, the concrete around it was damaged and its walls were cracked in some places with trees and plants testifying to a prolonged lack of maintenance (Fig. 12(c)). The disposal of waste (household, plant and construction) indicates poor environmental sanitation practices, which constitute a risk to water quality and health.

Fig. 12. (a) Failure of chlorination device (Reservoir 1); (b) stagnant water (Reservoir 2); (c) area surrounding Reservoir 3



Photos: WHO/Enkhtsetseg Shinee.

Distribution of drinking-water

The territory of Lampedusa is divided into seven zones. Water supply is distributed through a piped network in each distribution zone. However, due to the limited capacity of the desalination plant, the quantity of the water distributed is insufficient to ensure a continuous supply. The drinking-water distribution network currently distributes water for 6 hours in every 24 hours (07:00 –13:00 hours)

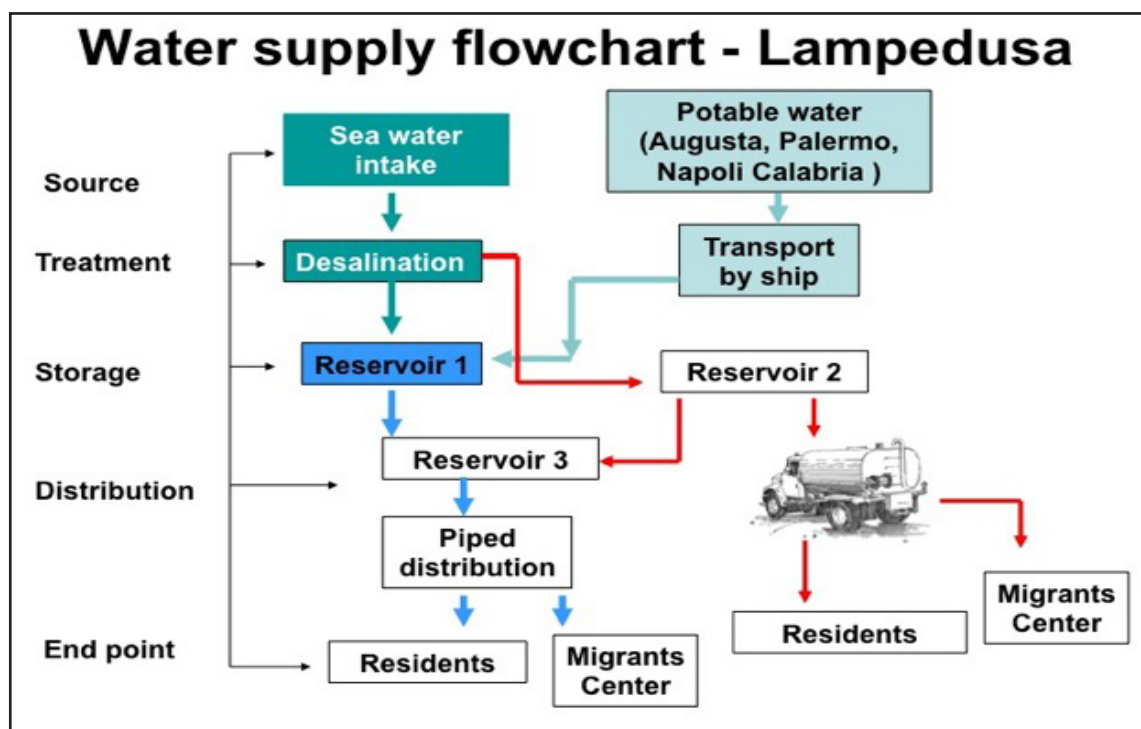
In order to cope with irregularities in water supply, households have individual reservoirs, which either fill from the irregular centralized supply or are filled from tanker trucks. Clearly, the conditions of household water storage will have a determining effect on the quality of the water at the point of consumption.

Interrupted water supply is recognized as being at risk for bacterial after-growth, particularly in exposed pipes, and for the ingress of contaminated water (and silt) from the soil around the distribution pipes.

No information was available on the condition of the water-distribution pipes, or on the performance of the distribution pipes in terms of loss through leakage.

Fig. 13 illustrates the water-supply flow on Lampedusa, as experienced during the field visit.

Fig. 13. Flowchart of water supply on Lampedusa



Source: based on interviews during the mission.

Sanitation

A visit to the wastewater treatment plant of Lampedusa (Fig. 14) was carried out on 17 May 2012. The plant started operating about 10 years ago. The mission team was informed that the plant was originally designed for two-stage biological treatment with a design capacity of 450 000 m³. The plant stopped operating in April 2011 due to technical failure. The totality of the wastewater generated on the island of Lampedusa is discharged, without prior treatment, directly to the sea through 800 meters of pipe. The team was informed that there is a plan to upgrade or renew the plant.

Sanitary inspections

The local health centres of Lampedusa and Linosa do not carry out laboratory analyses of drinking-water or marine environmental quality but take samples and transport them by ship for analysis to the central laboratory in Palermo. Sampling frequency is once a fortnight.

3.4.2 Water supply and sanitation at CSPA, Lampedusa.

General

The current capacity of the Centre is 250 beds. In the community shelter houses, there are 11 hand-washing basins, 30 toilets and 21 shower cubicles (Fig. 15). In addition, sanitation facilities (hand washing facilities, toilets and showers) are available for disabled people at the medical post. The number of toilets and showers in the Centre is sufficient to meet the minimum requirements of UNHCR (7). However, in the event of an increased influx (noting that during the last crisis there were 8000 migrants at the camp), the current capacity of the Centre would be insufficient to cope with the high demand for shelters and basic needs (water, sanitation and personal hygiene facilities).

Fig 14. Wastewater treatment plant, Lampedusa



Photo: WHO/Enkhtsetseg Shinee.

Fig. 15. Sanitation facilities at the migrant centre on Lampedusa, 17 May 2012

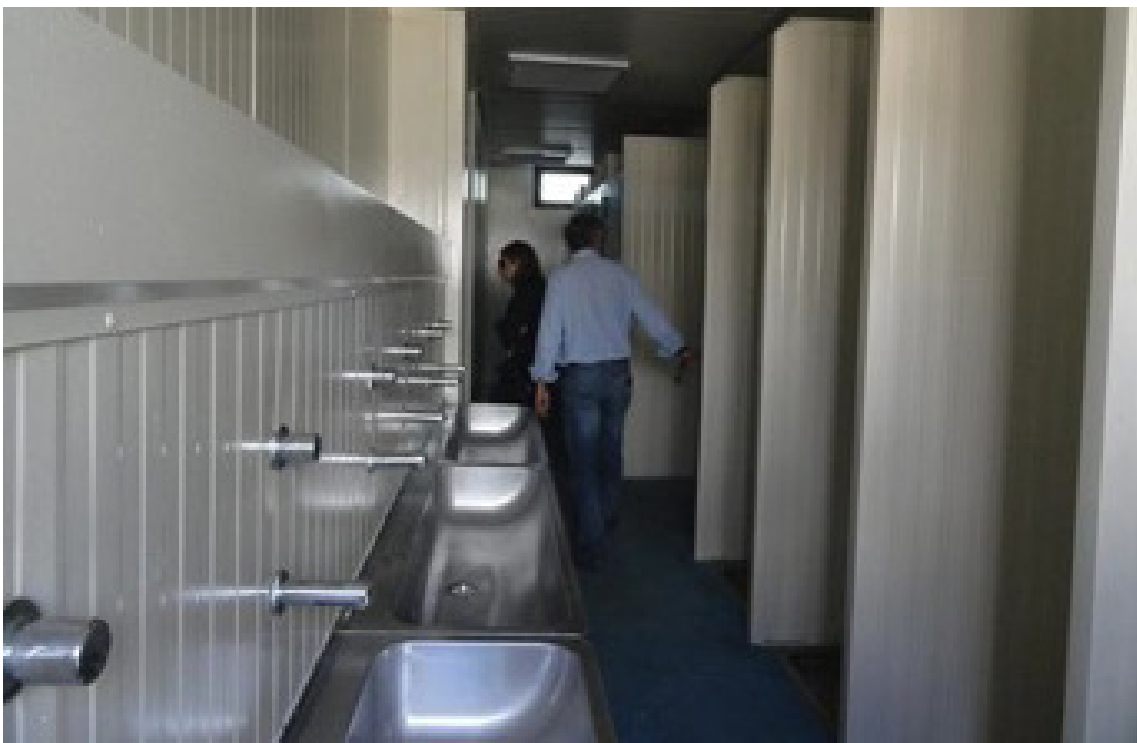


Photo: WHO/Enkhtsetseg Shinee.

Experience has shown that in shelters with piped water and sanitation facilities, migrants are not aware of the limited availability of water on Lampedusa. Awareness of this factor should be increased and the rational use of water promoted.

Water supply and sanitation system

The Centre disposes of an enclosed, 15-metre-deep well, which feeds an underground reservoir with a capacity of 120 m³. The on-site desalination unit had not been functioning since the previous WHO visit in March 2011. Water tankers are the main source of water for the Centre, which also receives water (very irregularly) from the centralized water supply approximately once every two weeks. There is no process in place for post-chlorination after delivery. There is a lack of local capacity to measure free-chlorine levels.

The mission was not able to inspect the water tankers or ascertain the maintenance of the tanks on board.

The wastewater from the Centre is evacuated through a piped sewage network, which connects to the public sewage network from whence it reaches the sea without any treatment.

It should be noted that, as the Centre was not in operation at the time of the mission, it was not possible to obtain a full picture of the management of water-supply sanitation and other health measures.

3.4.3 Water supply and sanitation on Linosa

The island of Linosa has an independent water-supply system. The main source of drinking-water is desalinated water. The desalination unit has been operating since 1988 and is managed by a private contractor under agreement with the Government. It has the capacity to produce 500 m³ water per day. The area surrounding the plant is well planned and maintained.

Technological process and distribution

Seawater is pumped from the collector to two distillation chambers each with a capacity of 250 m³. This process is followed by remineralization and disinfection with hypochlorite, and potable water is pumped into the reservoir located uphill approximately 1.5 km away. The water from the reservoir is distributed to the consumers. The distribution system is under the responsibility of the local government.

Wastewater generated on Linosa is discharged into the sea without prior treatment. The discharge point is in the coastline area called “Arena Bianca”, located in the southern part of the island.

Fig. 16. Stocks of minerals and disinfectants and storage of waste oil at the Linosa desalination plant



Photos: WHO/Enkhtsetseg Shinee.

3.5 Health information

Routine surveillance requires that any public health concerns about communicable diseases are reported. In 2011, the mission teams discussed the need to shift from regular reporting of diseases to a syndromic surveillance system and active surveillance, which would provide for an early-warning function. This timely recommendation was endorsed by the Ministry of Health through Note DGPREV 0008636-P of 7 April 2011⁷, which was distributed to all regional health authorities and, with the support of the Ministry of the Interior, to all migrant centres on Italian territory with a view to monitoring disease patterns in the event of a large influx of migrants.

Epidemiological data are collected regularly by health posts within the migrant centres managed by the Ministry of the Interior. Analyses of the health data of migrants who have been screened in accordance with established protocols should be made available to public health authorities as planning references. One area of concern for the local health authorities is tuberculosis among displaced people, particularly drug and multidrug-resistant tuberculosis (MDR TB) and extensively drug-resistant tuberculosis (XDR TB)⁸.

In order to manage the health aspects of the North African migrants on Lampedusa, and draw up ad hoc guidelines for use in the regions to which they are relocated, the Italian Ministry of Health drafted a protocol for syndromic surveillance and vaccination to be applied in the migrant reception centres.

The protocol was based on WHO documents on syndromic surveillance and on the Italian childhood immunization calendar and vaccination schedules, in accordance with national legislation and depending on the availability of relevant information.

Syndromic surveillance is to be carried out for:

- diseases that cause substantial morbidity (diarrhoea and respiratory infections, with a special focus on suspected cases of tuberculosis);
- diseases with the potential to cause epidemics (measles, cholera, meningitis, jaundice, scabies and haemorrhagic fevers);
- unexplained causes of deaths.

A person was nominated through the regional health authorities to be responsible for application of the protocol in each reception centre and to take charge of the daily reporting of registered cases of disease and the administration of vaccinations at the regional and central levels. The follow-up of cases, the testing of laboratory samples, the investigation of epidemics and the mandatory notification of communicable diseases should be carried out in accordance with the relevant national laws and public health plans.

Since 11 April 2011, 126 migration centres have sent surveillance reports to the National Centre for Epidemiology, Surveillance and Health Promotion in Rome based on the 13 syndromes listed by the Ministry of Health. On average, 5552 people have been under surveillance within the range of 4572 to 5855. Seventy-six per cent of them consisted of adolescents and adults between 15 and 44 years of age. The surveillance reports characterized the results as follows: respiratory infections with fever (64.0%); gastrointestinal syndromes without bleeding (18.2%); parasitoses (14.0%); diarrhoeal disease with blood (2.3%); suspected tuberculosis (1,1%); and meningitis and encephalitis (0,4%).

⁷ Note of the Ministry of Health of 7 April 2012 (DGPREV 0008636-P available (in Italian) on request to the WHO Regional Office for Europe.

⁸ XDR-TB is resistant to isoniazid and rifampicin and to any one of the fluoroquinolone drugs and to at least one of the three injectable second-line drugs: amikacin, capreomycin or kanamycin.

After the emergency on Lampedusa in 2011, the central authorities and the Civil Protection Department prepared a worst-case scenario contingency plan, establishing the capacity for hosting up to 50 000 migrants/refugees.

The persistent challenge of logistics and infrastructure on Lampedusa was noted during the 2012 assessment. It is highly recommended that, as soon as possible, the municipality develop a preparedness plan addressing water and sanitation vulnerabilities with the aim of preventing possible public health problems. The health-care assistance provided by the Ministry of the Interior within the hosting centres should be linked to and coordinated with that of the regional health authorities, given the establishment of a single central point for surveillance.

3.6 Health financing: national and subnational financing strategies for health emergency management

The Ministry of the Interior and the regional health authorities have contingency funds to support necessary preparedness and response measures.

The cost of such measures to the Lampedusa and Linosa health services is estimated to be about €20 million per year.

In 2011, MEDVEC expenses amounted to €5 million due to increased services for the migration emergencies.

3.7 Service Delivery

3.7.1 Health services

The Region of Sicily ensures immigrants (with or without a resident permit) the right to access preventive services and maternal and child health care, including vaccinations and emergency services. Health-care workers have no obligation to report irregular immigrants to the competent authorities. Irregular immigrants are issued with STP cards that allow them to receive treatment free of charge.

Specific clinics have been created at hospital trusts to provide undocumented immigrants with primary care, social-assistance services, STP codes, specialist examinations, and diagnosis and treatment.

It is important to note that the immigrant services are mainly for undocumented immigrants; those with regular residence permits have access to general practitioners (GPs), on a par with Italian citizens.

Immigrant services are present in five provinces of Sicily:

1. Palermo (Civico Public Hospital and Buccheri La Ferla Hospital);
2. Catania (V. Emanuele Public Hospital and Garibaldi Public Hospital);
3. Messina (Papardo Public Hospital and Piemonte Public Hospital);
4. Ragusa (specific outpatient departments opened by MSF in the health districts of Santa Croce Camerina, Vittoria, Scicli and Ispica);
5. Caltanissetta.

Organizations providing immigrant services at the regional level are:

- the Regional Centre of Reference and Coordination of Migrant Medical Services at the Department of Clinical Medicine and Emerging Diseases, P. Giaccone University Hospital, Palermo;

- the Regional Health Inspectorate where the Social Medicine and Regional Epidemiological Observatory Groups operate; and
- INMP/NIHMP, located at the Arnas “Civico-Benfratelli e G. Di Cristina” of Palermo.

Primary care services (health centres), the emergency medical services (EMS) system, and referral hospitals are all well prepared for meeting the health needs of a limited number of migrants. Migrants receive primary-care services in health centres offering the main primary-care service package. Cultural mediators, who are part of the migrant communities, receive the basic training required to provide support (including translation services) to the migrant population.

The main hospitals on Sicily provide tertiary-care referral services. The hospital facilities in Sicily are equipped with the latest medical technology and are well prepared to handle any type of health emergency, including mass-casualty incidents. The hospitals have, jointly with the Ministry of Health, developed a medical contingency plan for quickly establishing additional beds for the care of migrants on Sicily and in Rome. In addition, short-term peaks in demand for various tertiary-care interventions can be absorbed without major disruption to the regular hospital services.

As already mentioned, the health-service capacity on Lampedusa includes a PHC centre, which covers 19 medical specialties; it is regularly manned by 3 doctors and 2 nurses, and 5 additional nurses have part-time contracts to cover day-service needs. The migrant centre on Lampedusa is also equipped with diagnostic capacity, such as X-ray, and will soon be upgraded with a CT scanner and a MRN scanner. The island is also supported by a 24/7 MEDEVAC service, which includes a helicopter and a medical team (anaesthesiologist and nurse).

Linosa has a health post with a weekly rotating emergency doctor, a resident GP, a nurse, an ambulance and a pharmacy. There is very limited capacity on the island and the equipment is only sufficient enough to support the basic needs of the island’s 450 inhabitants. On arrival there, migrants are assessed and treated locally for simple medical needs or referred to Lampedusa or the mainland if complex health care is required.

The Regional Health Authority designed a contingency plan for an eventual critical situation on Lampedusa as a result of massive migration movements.⁹ The region has a well-tested surge capacity that can double the number of health staff and the MEDEVAC capacity on Lampedusa within 48 hours.

3.8 Risk assessment

Within the health system, different scenarios can be identified based on the health implications that neighbouring and south European countries could face as a result of:

- violence;
- lack of access to health care, treatment of chronic diseases, safe drinking-water, food supplies and shelter;
- outbreaks of infectious diseases among refugees;
- outbreaks of diarrhoea, typhoid fever, and hepatitis A and E;
- outbreaks of malaria;
- outbreaks of tuberculosis in overcrowded refugee camps;
- outbreaks of acute respiratory infections and vaccine-preventable diseases.

⁹ Note of the Civil Protection Department of Juen 2011 available (in Italian) on request to the WHO Regional Office for Europe.

The arrival of refugees from sub-Saharan regions would require surveillance for tropical diseases.

The lack of water supply and sanitation represents the greatest threat on Lampedusa. In considering options, the long-term environmental-health effects for the resident population should be a priority. The basic recommendation is to create an island-wide water-safety plan, incorporating a risk-assessment and risk-management approach covering all steps of the water-supply system from source to point of use. The plan should address the current problems in a holistic and systematic manner, recognizing and providing for the challenges associated with mass migration to the island.

There are two scenarios for health-system contingency planning:

1. a potential influx of injured victims of the North African crisis;
2. a massive influx of displaced populations, with a worst-case scenario of 10 000 plus arriving on Lampedusa in need of temporary settlement, which would challenge the immediate absorption capacity of the country.

Fig. 17. Abandoned boats on the Lampedusa shore



Photo: WHO/Matteo Dembech.

4. Conclusions and recommendations

4.1 Experience and expertise

Over the years, Italy has gathered substantial experience and developed expertise in receiving displaced populations and in addressing the public health challenges associated with migration. During the migration crisis of 2011, the estimated numbers of North African migrants in transit on Lampedusa and Linosa were 51 922 and 1260 respectively. The Regional Health Authority of Sicily showed a high level of commitment in responding to their needs.

A contingency plan entitled “The Lampedusa Model” has been developed. This plan should be assessed, evaluated, and translated into a tool, which can be replicated by other areas facing similar emergencies.

4.2 Coordination mechanisms

Coordination among the various entities involved in emergency response, at both the policy and the operational levels, is essential for achieving results. Coordination is vital in emergencies. Good coordination means fewer gaps in and overlaps of the work of the organizations involved.

Evidence from a number of international emergencies shows how poor coordination can result in confusion about the roles of those involved in the response, duplication of effort, waste of available resources and, more importantly, ineffective and inefficient response. The principles and organizational structure of a response, recommendations on key action, as well as expected results, are listed under “Preparedness and response” (4.6).

Italy has established a multisectoral coordination mechanism, which foresees central-level crisis coordination and involves all major government institutions and line ministries.

The Italian health authorities are on the alert with a high level of readiness and have engaged in contingency planning and developing scenarios that were continuously revised and adapted to the rapidly changing situation during the North Africa emergency of 2011. The coordination situation appears basically to have remained unchanged since. A technical coordination table in the form of a health task force has been set up involving the Ministry of Health and the leading public health national institutions. The Region of Sicily hosts a technical health coordination table to deal with operational issues; all regional health authorities participate. The local health coordination on Lampedusa was radically improved in 2011 when a clear chain of command, coordination and distribution of tasks was established under the leadership of the PHC centre, as well as a clear patient management and referral system. These strategic moves have been endorsed in a directive of the Civil Protection Department and a strategic contingency plan has been developed by the Regional Health Authority of Sicily. Leadership of the overall management of migration crises is under the responsibility of the Civil Protection Department and the Ministry of the Interior.

The main challenge today is still the limited capacity available on Lampedusa and the fragility of the water and sanitation infrastructure, which poses a risk in the event of a migration emergency.

A large gap remains, i.e. the need for a municipal preparedness plan to equip Lampedusa in

the face of a possible massive migration emergency. In the light of the serious public health and sanitation conditions and the scarcity of water on the island, it is recommended that epidemiological and syndromic surveillance be strengthened. The priority would be to strengthen coordination among the involved institutions on Lampedusa with a view to expediting faster decision-making and response measures.

4.3 Crises communication

The most challenging part of crisis communication management is reacting – with the right response – quickly. This is because behaviour always precedes communication. Non-behaviour or inappropriate behaviour leads to spin, not communication. In emergencies, it is non-action and the resulting spin that cause embarrassment, humiliation, prolonged visibility, and unnecessary litigation.

Helping management to understand the impact of inappropriate or poorly thought through crisis response is one of the most important strategic services a public relations practitioner can provide. To have a strategic discussion requires a tool that has value without insulting the executive's intelligence, has impact without belabouring the obvious, inspires action without over-simplifying, and illustrates options and choices without teaching unnecessary, ill-advised lessons in public relations.

True crises have several critical dimensions in common, any one of which, if handled poorly, can disrupt or perhaps destroy the best efforts at managing any remaining opportunities to resolve the situation and recover, rehabilitate, or retain reputation. Failure to respond and communicate in ways that meet community standards and expectations will result in a series of negative outcomes. The seven critical dimensions of crisis communication management are: operations; victims; trust/credibility; behaviour; professional expectations; ethics; and lessons learned. This shows the necessity for the health authorities, at the three coordination levels, to equip themselves with a crises-communication plan defining generic, basic guidelines on crisis communication and indicating action to be taken. One thing to remember is that it is crucial in a crisis to tell it all, tell it fast and tell the truth. Doing so means doing everything possible to minimize the severity of the situation. One individual should be designated as the primary spokesperson for the health institution making the official statements and answering media questions throughout the crisis

4.4 Water, sanitation and hygiene

4.4.1 General

The basic recommendation is to create an island-wide water-safety plan for Lampedusa. This plan should address the current problems in a holistic and systematic manner, while recognizing the challenges of mass migration to the island.

As recommended during the assessment carried out in 2011, the island needs to be provided with equipment, spares and expendables for the testing of drinking-water on location. Kits for determining the presence of free chlorine are a minimum. A sufficient stock should be built up to cope with an influx of migrants that exceeds the design capacity of the migrant centre. In procuring equipment, the needs of the contingency plan should be borne in mind. The document, *WHO technical notes on drinking-water, sanitation and hygiene in emergencies* (11, provides a checklist for an initial needs-assessment relating to water supply, sanitation and the promotion of hygiene.

The water, sanitation and hygiene conditions on Lampedusa need to comply with the requirements of *Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment* (9).

4.4.2 Desalination

The current production capacity of the Lampedusa desalination plant is less than 75 litres per day for a population of 6300, which indicates that a more permanent solution to water supply is

required. There is an urgent and substantial need to upgrade and modernize the desalination plant and to increase the production capacity to meet household needs.

The observed deficiencies in the operation and maintenance of the plant create substantial health hazards. Therefore, a holistic risk assessment/risk management plan (water-safety plan) should be developed.

However, without waiting for an upgrade of the plant, urgent action is needed to install water-disinfection equipment and supply adequate verification equipment to control its functioning. For domestic use, the residual chlorine levels in water at the point of collection by the consumer should be between 0.2 mg/l and 0.5 mg/l. The higher level would be found close to the disinfection point and the lower level at the far extremities of the supply network (see *WHO technical notes on drinking-water, sanitation and hygiene in emergencies (11)*, Chapter 11: Measuring chlorine levels in water supplies).

4.4.3 Water supply reservoirs and distribution network

The management of community water-supply reservoirs and the distribution network, as well as the existing practices of storage and treatment of water at household level, need to be improved. Reservoir 4, located in the vicinity of the migrant centre, needs to be refurbished.

4.4.4 Sanitation

The European Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment (9) refers to the collection, treatment and discharge of urban wastewater and the discharge of wastewater from certain industrial sectors. It is applicable to agglomerations of over 2000 people. As the permanent resident population of Lampedusa is around 6000 and increases significantly during a flow of migrants and tourists, the wastewater situation does not meet the requirements of the Directive. According to the Directive, before discharging wastewater to coastal waters, the five-day biochemical oxygen demand (BOD5) of the incoming water should be reduced by at least 20% and the total suspended solids by at least 50%. During periods of increased residency, special attention should be given to the discharge of untreated wastewater.

4.5 Specific recommendations related to the migrant centre

While the current migration flow is within the receiving capacity of the migrant centre on Lampedusa, it should be borne in mind that the events of 2011 resulted in an influx of over 60.000 migrants, a population increase that would overwhelm the current facilities. It is therefore recommended that a contingency plan be developed to deal with an influx of migrants that would significantly exceed the design capacity of the current installations.

The contingency plan should address emergency-response measures for the provision of shelter, water of sufficient quantity and quality, and adequate toilet and washing facilities. Clothing, bed linen, and basic personal hygiene kits should also be provided in accordance with UNHCR requirements (7) and those of the *Humanitarian Charter and Minimum Standards in Humanitarian Response* of the Sphere Project (8). Disinfection substances, pipes, reservoirs and other essential supplies for safe storage should be stockpiled and the distribution and treatment of water, as well as the adequate discharge of excreta and wastewater should be assured. A bulk water supply could be a temporary solution but could not be accepted as a replacement for a permanent water supply.

A water-safety plan should be developed for the migrant centres.

To restore a continuous flow of water, the repair and normal operation of the desalination unit in the centre should receive priority, as recommended in the report on the 2011 mission.

Coordination of the efforts of the local health authorities and collaboration with them on water-quality monitoring should be secured and the basic parameters, such as turbidity, pH, residual chlorine and total coliform, should be controlled regularly. Staff of the Migrant Reception Centre could be trained in the basic maintenance, operation and management of the community water-supply reservoirs and distribution network, including how to determine residual chlorine levels.

Measurements for reservoir management, as well as the cleaning of the reservoir and the maintenance of a protective concentration of disinfectant, should be undertaken urgently without waiting for the repair of the desalination unit to be completed. Similarly, measures should be taken to ensure the hygienic management of the tanker fleet carrying water to the Centre.

As a precautionary measure, local authorities should bear in mind that bladder tanks can be used to rapidly increase the storage capacity of drinking-water and, in particular, offer the possibility of coping with rapid fluctuations in demand.

Effective health promotion programmes to address key hygiene problems and reduce and prevent the burden of water- and sanitation-hygiene-related diseases should be established. SPHERE and UNHCR recommend making optimal use of all water-supply and sanitation facilities and offering systematic hygiene-promotion activities to the affected population (7,8). One hygiene-promotion facilitator is recommended for every 1000 people.

The ashes and remains of the burnt buildings need to be disposed of safely.

4.6 Preparedness and response

In order to support the local health workforce with the necessary extra surge capacity, the mobilization of temporary health facilities through international support mechanisms could be considered. This could be through bilateral agreements, nongovernmental organizations or United Nations mechanisms.

Options on mutual support mechanisms for intercountry preparedness efforts were discussed during the high-level meeting – Increasing movement of displaced populations in the Mediterranean countries of the European Union: future challenges for health systems – held in Rome, Italy, on 13 April 2012. The meeting was hosted by Italy and organized in collaboration with EU and WHO.

Syndromic surveillance capacity for early warning about and response to communicable diseases outbreaks has been established.

The need for specific guidance on the technical aspects of tuberculosis (TB) screening and treatment strategies was discussed. Relevant expert advice is available in Italy and could be backed up by WHO experts who could be mobilized to augment capacity and share best-practice experiences.

In a worst-case scenario, e.g. a mass influx of displaced populations causing a severe humanitarian crisis in Italy, the United Nations humanitarian response mechanism (the cluster approach)¹⁰ for facilitating the coordination of international response could be activated, under the leadership of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA). WHO could support the Italian health authorities in identifying priority health needs, developing donor appeals to support respective humanitarian health action, and help with the coordination of the international health response.

¹⁰ Information available: http://www.who.int/hac/techguidance/tools/manuals/who_field_handbook/annex_7/en/index.html, accessed 5 December 2012.

The key recommendation is to support the Lampedusa authorities in developing appropriate preparedness plans. The health sector has already moved in this direction; similar action is required at the municipal level to identify gaps and develop contingency plans. The following checklist of key action to be taken in the event of an increased influx of migrants and displaced populations was compiled on the basis of best practices.

4.6.1 Checklist of key action to be taken in the event of an increase in influx of migrants and displaced populations

The purpose of this checklist is to help emergency managers provide appropriate administrative and organizational support to the technical response to a possible increase in the influx of migrant and displaced populations from North Africa to Lampedusa. It is based on the experience gained in managing a number of humanitarian emergencies and on the assumption that existing routine response activities are overwhelmed.

Role of the emergency manager

The role the emergency manager is to work closely with all sectors of government to ensure that effective response measures are taken in accordance with current international best practice. This is done by:

- establishing rapid response measures that meet current standards of best practice in relation to rescue, evacuation, first aid, mass-casualty management, care of the dead, care of the disabled, psychosocial care and mental health, temporary shelter, water and sanitation, environmental health and vector control, food supply and nutrition, food safety, referral systems, laboratory support, reporting and surveillance, public information services, and public education strategies;
- mobilizing critical resources in terms of expertise, funds, materials and information;
- facilitating coordination and information-sharing among the key players at the national, international, governmental, nongovernmental, local and central levels;
- keeping the public informed and educated;
- continuously monitoring all aspects of the response;
- undertaking a final evaluation of the emergency response for the government and the donors.

Preparedness checklist

To be prepared for an increase in the influx of migrants to Lampedusa, the following elements need to be in place:

- an updated multisectoral contingency plan that provides for the basic needs for various scenarios;
- an agreed operational chain of command, including the media and public communication authorities, disseminated to the key actors and periodically reviewed;
- an on-site emergency task force with information about the people involved and a clear definition of their functions;
- surge logistics and medical teams (with information about the people involved and a clear definition of their functions);
- agreed administrative arrangements for the rapid deployment of medical, logistics and water and sanitation staff;
- agreed medical referral mechanisms;
- defined and updated mass-casualty hospital plans;
- a list of suitable sites for temporary shelter with proper water and sanitation facilities;
- agreed logistics arrangements for site preparation;

- prepositioned emergency supplies (shelter, water, sanitation, medicines, etc.);
- agreed logistical arrangements for the rapid transport of emergency supplies;
- defined simple reporting templates (disseminated to the key actors);
- identified emergency funds.

Response checklist

To be able to carry out a satisfactory response to an increased influx to the island, it would be necessary to:

- activate the contingency plan;
- establish a situation room;
- activate the on-site multisectoral task force;
- organize daily coordination meetings;
- organize sector meetings, as required;
- activate the emergency surveillance system;
- produce and disseminate a daily epidemiological bulletin.
- organize a daily press release and press briefing;
- organize a filing system;
- produce internal reports on a daily basis.

Minimal equipment for a situation room

The minimal requirements for a situation room include:

- tables, chairs, display boards (white and cork);
- a place to keep personal protection equipment (gloves, masks, etc.);
- Internet access for each expert (via a PC or their personal laptops) to a PC server (preferably in the same room);
- a telephone with conference facility;
- hot water, cups, coffee, tea, milk, snacks;
- files, paper, pens, stationery, reusable supplies;
- files containing the key documents (including daily press releases, public information, etc.);
- whiteboards, pens, diskettes, CDs, flipcharts;
- notice boards with local information and copies of contact information;
- scanning, printing and photocopying arrangements;
- display of travel information;
- daily cleaning arrangements.

Structure of a contingency plan

A contingency plan is an important element of preparedness. Table 1 shows the functions and indicative elements required at different levels of contingency planning (interagency, sector-cluster, organization-specific) for a satisfactory response to an increased influx of migrants to Lampedusa.

Table 1: Levels of Contingency Planning and the Role of Inter-Agency Planning

Type of Planning	Inter-agency planning: Common Planning Framework	Sector/cluster planning	Organizationspecific planning
Function	Provides a common strategic planning framework to ensure complementarity of humanitarian action between agencies/ organizations.	Defines how agencies will work together to achieve sector-specific objectives.	Defines the specific organizational arrangements required to deliver the services that the organization is committed to provide.
Indicative Elements	<ul style="list-style-type: none"> • Common analysis, risk & vulnerability assessment • Scenarios & planning assumptions • Agreed planning figures • Overall management & coordination arrangements • Overall objectives & strategies • Overarching principles • Gap analysis • Information management arrangements • Appeal and funding arrangements • Linkages with government • Preparedness & maintenance actions 	<ul style="list-style-type: none"> • Participation & coordination • Sectoral objectives & response strategies • Needs assessment & analysis • Capacity & response commitments • Gap analysis • Information management arrangements • Standards for response • Monitoring and reporting • Personnel requirements • Material & financial requirements • Preparedness & maintenance actions • Standard Operating Procedures 	Describes how the organization's response will be delivered using their emergency response systems & capacities.

Source: *Inter-Agency contingency planning guidelines for humanitarian assistance (12)*.

Interagency contingency planning is a process that requires strong coordination and management; Table 2 describes its basic components from preparation to implementation.

Table 2: Basic Components of the Inter-agency Contingency Planning Process

1. Preparation	Prepare for and organize the inter-agency contingency planning process.	Strong Coordination and Process Management
2. Analysis	Analyze hazards and risks, build scenarios and develop planning assumptions.	
3. Response Planning	Define response objectives and strategies.	
	Define management and coordination arrangements.	
4. Implementing Preparedness	Develop and consolidate response plans	
	Enhance preparedness and continue the planning process.	

Source: *Inter-Agency contingency planning guidelines for humanitarian assistance (12)*.

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¹¹ All Internet links accessed 3 December 2012.

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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“New diseases are global threats to health that also cause shocks to economies and societies. Defence against these threats enhances our collective security. Communities also need health security. This means provision of the fundamental prerequisites for health: enough food, safe water, shelter, and access to essential health care and medicines. These essential needs must also be met when emergencies or disasters occur.”

– Dr Margaret Chan
WHO Director-General

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