D4.4: Predictions concerning the use of health care services in Europe by Migrants/refugees – Scenarios and suggested solutions

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Description of deliverable	Task 4.5: The information of all the tasks previously conducted in WP4 will be used to design a prediction model to predict the health care services needed to address and respond to the needs of different groups of vulnerable migrants and refugees. Different scenarios will be discussed regarding the demands of EU health care and social services in the coming years.
Key words	Prediction model, scenarios, EU health care services

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The partners in this project are:

No	**Name of partner**	**Partner Acronym**	**Country**
1	ASTIKI MIKERDOSKOPIKI ETAIREIA - PROLIPSIS	Prolepsis	Greece
2	OXFAM ITALIA ONLUS	OXFAM ITALIA	Italy
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The Mig-HealthCare project

Since the Middle East crisis broke in 2011 Europe has seen increased flows of migrants and refugees arriving mainly at the Mediterranean shores. This is not though the first time Europe has experienced the influx of large migrant/refugee flows. Immigration to Europe has a long history; Europe has always been a destination continent for people seeking refuge from war, poverty and natural disasters. Many can argue that in a way most European citizens have a migrant background and migrant origins. Especially Western European countries experienced a high growth in immigration after World War II. In particular MS of the EU-15 have sizeable immigrant populations, both of European and non-European origin. The fall of the Soviet Union in the later part of the past century brought new waves of migrants to Western Europe. This time it also bought waves of migrants to previously traditional emigration countries such as Greece, Italy and Spain.

The current refugee/migrant crisis has once again put Europe in a "reactive mode" as recently stated by Carlos Moedas, the European Commissioner for Research, Science and Innovation during the International Conference on Understanding and Tackling the Migration Challenge (4-5 February 2016, Brussels).

The good news is that Europe does have long experience in the integration of migrants and refugees. Over the last years the European Commission has focused efforts on tackling issues related to migration and has financed a plethora of related programs. The evidence on effectiveness exists – it needs to be assessed under the prism of new developments and put to the test. Action is urgent given also Europe's dark past in anti-migrant negative attitudes which are rising across Europe exacerbated by the adverse economic situation in many MS. European countries have a unique opportunity to put past and current experience to practice promoting the integration of refugees and migrants so as to "live up to European values of democracy, peace and respect of human rights" as put in the words of Carlos Moedas.

Migrant and *refugees* are terms that are often used interchangeably, but they are defined by the UN as follows (https://refugeesmigrants.un.org/definitions):

Refugees are "persons who are outside their country of origin for reasons of feared persecution, conflict, generalized violence, or other circumstances that have seriously disturbed public order and, as a result, require international protection. The refugee definition can be found in the 1951 Convention and regional refugee instruments, as well as UNHCR's Statute".

Migrants "While there is no formal legal definition of an international migrant, most experts agree that an international migrant is someone who changes his or her country of usual residence, irrespective of the reason for migration or legal status. Generally, a distinction is made between short-term or temporary migration, covering movements with a duration between three and 12 months, and long-term or permanent migration, referring to a change of country of residence for a duration of one year or more".

Health and social care for migrants and refugees in Europe

Migrants, asylum seekers and irregular migrants are, compared to the general population, at a higher risk of poverty and social exclusion. Research has indicated that in many cases these vulnerable groups do not receive appropriate health and social care that best meets their needs (Stanciole & Huber, 2009).

Anderson Stanciole (WHO, Switzerland) during a policy seminar on the barriers to Healthcare Services for Migrants organized by the European Health Management Association highlighted the fact that migrants are not a homogeneous group and face very different barriers when accessing health services. Additionally, it is clear that different MS have very different circumstances when it comes to how health and social care for migrants is organized. Hence the "one size fit all" approach is not going to respond to the very complex and urgent situation.

Nevertheless, there are common barriers among different migrant groups when accessing health and social services which mostly have to do with lack of knowledge about available services; language differences; and varying cultural attitudes to health and health/social care.

Numerous EU projects have been implemented in the last years with the objective of mapping existing health services for migrants and refugees and looking into their improvement through recommendations and action plans. Research and projects point to significant differences between the MS in terms of service provision while recommendations and action plans often oversee country specific circumstances (i.e. the economic recession).

Some areas are widely unknown. For example we will explore what is available for mental health, dental health, services for minor surgical operations and services related to obstetrics and gynecology among migrants/refugees

The prediction scenarios

Task 4.5 is described as follows in the contract.

The information of the previous tasks completed in WP4 will provide the necessary information to complete building of the scenarios. These tasks include results from:

- The literature review report
- The focus group results
- The survey
- The mapping of health services for migrants/refugees

Results of the above tasks will be used to design a prediction model to predict the health care services needed to address and respond to the needs of different groups of vulnerable migrants and refugees. Different scenarios will be discussed regarding the demands of EU health care and social services in the coming years. Visualizing future trends based on the current situation is a powerful tool to prepare services for future problems.

The information in the current version of D4.5 is in **draft version** as some of the above tasks are incomplete at the time of the submission of the deliverable.

Methodology

The objective of this task is to build scenarios designed to highlight important health issues for migrants/refugees that will challenge European health systems in the future and propose evidence based solutions to address these challenges.

The methodology chosen to fulfill these objectives is described below:

- **Step 1:** Define the issue (set up the situation scene) based on the results and conclusions of the research tasks of WP4
- **Step 2:** Define the implications and challenges for health care service provision
- **Step 3:** Proposed policies/interventions and necessary changes to be adopted in order to tackle the issue
- **Step 4:** Predict challenges/problems/obstacles/pitfalls in adopting the suggested policies/interventions
- **Step 5:** Suggestions to overcome the above
- **Step 6:** Examples of solutions already implemented –local successful initiatives

The following section describes the main findings from the literature review report (D4.2: Literature Review), the focus group report and the preliminary findings from the survey using the Mig-HealthCare questionnaire (D4.3). These reports will be available from the Mig-HealthCare website - https://mighealthcare.eu/ at the completion of the project and once relevant publications have been published.

Literature review findings

The findings analysed below are the results of a literature review conducted by the consortium as part of WP4 and will be available from the Mig-HealthCare website once relevant publications have been published. The main findings from this report are summarised below:

There is an increasing number of migrants from outside the EU region in the different European countries. This MigHealth-Care review scoped 71 papers from ten European countries in English and their native languages in order to provide an overview concerning migrants' access to health care. More specifically the review aimed to identify what is known about the:

- Physical and mental health status of migrants and refugees in the EU member states;
- What is known about the health care needs of migrants and refugees in the EU member states
- What health care and social services are available for migrants and refugees

The review shows that despite the aspiration to ensure equality in access and provision of health care, there is evidence of persistent inequalities between migrants and non-migrants

in health and in access to health care services. Inequalities are the results of legal barriers in access to care for refugees and undocumented migrants, but they are also due to the economic situation of migrants/refugees who may lack the means to pay for health services or may lack the language and cultural competency to navigate the health care systems, or may be exposed to discrimination. It is of paramount importance to improve provision of care at the primary level, coordination between various agencies and to ensure that all groups of migrants get legal right to health care.

- Newly arrived migrants are healthier than the non-migrant population
- Some migrant groups tend to have higher risks for both communicable and non-communicable diseases. However, a conclusive result cannot be drawn from the studies.
- Some migrants may have a higher risk for mental and dental illnesses
- Social determinants negatively influence migrants' health status and access to health include housing conditions, legal status, social inequalities and discrimination.
- Barriers exist which lead to unequal access to health care. Examples of such barriers are:
  - Language and communication difficulties
  - Unavailability of health information in different languages
  - Lack of migrants' knowledge in health issues and policies
  - Discrimination
- Migrants tend to overuse emergency services and underuse primary health care services. However, this result is not consistent across countries as in some countries such as Spain studies show that migrant use the health care services is similar to natives
- Evidence on challenges of health care provision varies across countries. Some of the challenges mentioned are:
  - Organizational issues
  - Lack of infrastructure in transit countries such as Greece
  - Coordination between different levels of care
  - Cultural and language problems

Recommendations

- Guaranteeing equal legal entitlement as other residents of the country in accessing health care
- Fostering better living conditions for migrants in host countries
- Designing health policies that respond to migrants' needs
- Improving the role for primary health care services
- Improving the quality of European comparative work
- Improving mental and dental health care services for migrants
- Systematic inclusion of the determinant "migration background" in official health monitoring across European countries
- Increasing and improving the collaboration with various migrant groups

Focus Group findings

The findings analysed below are the results of focus groups conducted by the consortium as part of WP4 and will be available from the Mig-HealthCare website once relevant publications have been published. The main findings from this report are summarised below:

Existing studies of migrants' access to health care in Europe constitute a fragmented evidence base, which offers neither a basis for understanding the issue across Europe, nor for comparison between different countries. This qualitative study explores the barriers and facilitators to equal health care to migrants in ten European countries to gain a better understanding of migrants' situations. The research was conducted by the Mig-HealthCare project consortium, funded by the European Commission and took place between autumn 2017 and spring 2018.

Using a common interview guide, each national research team planned to conduct three focus group discussions or, where necessary individual interviews, with health care professionals and service providers; policy makers; and representatives from Non-Governmental Organisations - NGOs. Thematic qualitative analysis was employed to explore how access and provision of health care to migrants and refugees was understood from the perspective of providers, policy makers and NGOs working with health.

The following themes emerged from the analysis

1. Access to health care
2. Specific problems in transit countries
3. Specific health problems and health priorities
4. Suggested solutions and good practice.

The findings from the focus group are summarized below:

- Infrastructural and organizational factors are reported as damaging migrants' mental health (e.g. life in reception camps).
- A shift from a humanitarian emergency mind-set to focus on integration needs to take place.
- Health care for migrants is considered more or less adequate depending on the actor that is speaking, and the EU country in which they operate.
- Health care providers and NGOs agree that health care for migrants is inadequate and biased in favour of particular conditions and cases (minors, pregnant women and acute conditions).
- Health care providers appear to be generally more critical of the status quo of provision for migrants as compared with policy makers.
- Austerity measures following the 2008 financial crisis have negatively affected health care system in general, which in turn has negative affected the provision of health care for migrants.
- Respondents in different countries have different views of how the 2015 refugee crisis affected the provision of health care for migrants.

- Challenges faced in the different countries vary; while in some countries the main issue is legal access, in others basic needs such as sanitation and basic infrastructure were emphasised.
- Health care provision for migrants is uneven throughout the EU and variations exist even within the same country.
- Discrimination linked to socio-economic status and ethnic group is reported as a barrier to equal health.
- Gender may act as a barrier, with women tending to be more marginalised in the host country in terms of language proficiency and health literacy, which impedes health care access.
- Knowledge, language and communication on both the demand and the supply side of health care provision emerge as crucial to ensure equal access for migrants.
- Organisational issues and inadequate cooperation between private and public actors; insufficient training, scarcity of resources and infrastructural deficiencies are highlighted as major barriers to the provision of health care and to equal access to that care.
- Mental health is regarded as a health priority by informants in all countries. Deterioration of mental health is influenced by social stigma and a lack of access to care. Health care systems are ill suited to address mental health issues for migrants and the model of reception in hosting countries exacerbates mental illness through isolation, inactivity, pervasive uncertainty and social deprivation.
- Among the solutions suggested are: training in intercultural communication and conflict management; basic healthcare education for patients in their mother tongue; support in accessing primary care; a stronger community based approach - all identified as necessary across the consortium countries represented in this qualitative study.

Survey results

The survey analysis was based on 1407 questionnaires, answered by adult migrants residing less than 5 years in the specific country. Most migrants were born in Syria (21.2%) and Afghanistan (15.2%), followed by Iraq (9.4%) and Nigeria (8.5%). Approximately two in three migrants are male, whereas 72.2% of migrants are below 40 years old. Migrants left their country of origin on average 5 years ago and needed on average 7 months. They live in the country of interview for approximately four years. The vast majority of migrants entered Europe via Turkey (53.5%) and Libya (24.9%).

The majority of migrants (58.2%) share their accommodation with non-family members, whereas 7.2% do not feel safe at all, the main problems appearing in France (24%), Greece (17%) and Cyprus (16%). The majority of migrants in Austria, Cyprus, Greece, Malta and Sweden receive a regular income (in most cases either by UNHCR, an NGO or government allowance). On the other hand, most migrants in Bulgaria, Italy, Spain and France do not receive a regular income.

27% of migrants stated that their health is poor or fair. Lower SF-36 mental health and vitality scores were found among migrants from Iran, Iraq and Afghanistan. Lower general health score was found among migrants from Iran and Iraq.

61.8% of migrants needed health care services during the last 6 months, however approximately 45.2% reported did not having access to health services. The most frequent problems were long waiting times, not being able to organize an appointment, not knowing where to go, lack of communication and long distances.

The most frequent chronic health problem migrants face are headaches/migraines (12.7%) and caries (bad teeth) (12.2%), followed by psychological disease (7.7%) and sleep disorders (6.8%). However it is important to note that a significant proportion of migrants stated that they suffer from illness related to bone and muscle (6.3%), gastrointestinal disease (5.8%), skin disease (5.8%), eye disease (5.6%), ear, nose and throat disease (5.4%), respiratory disease (5.1%), hypertension (4.2%), diabetes (4.2%), chronic problems from injury/accidents (3.6%), urinary infections (3.2%), heart disease (3.1%) and kidney disease (2.5%).

In accordance to the above, the most frequent health issues found important by migrants are teeth problems (52.9%), headaches/migraines (37.3%), worry/anxiety (32.6%) and sleep problems (31.8%). Approximately two out of three migrants want to receive more information about their rights and how to use health care services. 73.3% of migrants needed translation during their interaction with healthcare services at least few times. However, the majority of migrants (73.3%) do not believe they have worse access to health care services compares to local people.

The vast majority of migrants (72.6%) do not have a vaccination card and the proportions of people having received immunization for all diseases after entering the EU are rather low for all diseases (ranging from 6.9% for influenza to 21.3% for Tetanus). Only 25.1% of female migrants had a Pap test/cervical cancer screening in the past and only 18% a mammogram. Approximately one in three women have been pregnant since entering the current EU country, whereas one in four has had miscarriage or abortion.

Summing up, most of the migrants face common medical problems such bad teeth, headaches and psychological problems. However long waiting times, not knowing where to go and lack of communication are barriers to access to healthcare. The fact that the vast majority of migrants is not immunized, although a significant proportion of them suffers from serious chronic diseases and limited breast and cervical cancer screening takes place for female migrants, poses serious threats for both for migrants' and for public health.

Proposed scenarios

Based on the literature review, focus group results and survey findings the emerging issues which will influence and impact on the health care systems of Europe in the future according to the MigHealth-Care project are the following:

Scenario 1: Mental health issues
Scenario 2: Chronic disease management
Scenario 3: Oral (incl. dental) health

For each of the scenarios the following step wise approach will be presented so as to provide a comprehensive picture of the foreseen situation and the evidence based policies and actions needed to tackle the issue.

Step 1: Description of health issue

Step 2: Implications and challenges for health care service provision defined
Implications and challenges for the health care systems outlined

Step 3: Proposed policies/interventions at the health care system level defined
Policies and interventions suitable to tackle the emerging issue.

Step 4: Predict challenges/problems/obstacles/pitfalls in adopting the suggested policies/interventions
Obstacles in the implementation of the above suggested policies/interventions.

Step 5: Suggestions to overcome the identified obstacles
Evidence based solutions to address practical problems identified in Step 4.

Step 6: Examples of solutions already implemented – local successful initiatives
Suggesting solutions to problems which inherently involve development of policy is challenging. We aim to propose solutions based on local/regional initiatives which could provide easy ways of tackling identified problems.

Scenario 1: Mental health problems among migrants/refugees

The research results of MigHealth-Care have indicated that in the coming years as migrant/refugee populations integrate into European communities the need for mental health care provision will increase and the pressure on mental health services across the EU will grow significantly.

Description of health issue

Refugees and migrants tend to have higher prevalence of mental distress compared to non-refugees. A recent study described the mental health condition of asylum seekers who passed through Médecins sans Frontières clinics in Sicily between October 2014 and December 2015 and, when invited, presented themselves for mental health screening. Of the 385 who were screened, most were young men who had left their home countries in West Africa more than a year prior to arrival. The most common mental health conditions were post-traumatic stress disorder (31%) and depression (20%). Most of the potentially traumatic events were reported to have been experienced in the home country (60%) and during the journey (89%), but also the trauma of being a refugee was also reported, with activity deprivation, worries about people who were left behind, loneliness and fears of being sent back (Crepet et al., 2017).

A study in Malta showed that migrants' previous traumatic experiences such as war have a great effect on their mental health. A study conducted by the Jesuit Refugee Service (JRS) in 2010 states that 80% of Asylum Seekers interviewed reported a deterioration in their mental health since their arrival. The JRS conducted a follow up study in 2014 which corroborated these findings. From a population of around 500 detainees, 74 individuals required in-patient psychiatric care (Rachel Taylor-East & Julian Caruana, 2014).

Studies of refugees' mental health show how structural barriers impeded the effective transfer of patients to further care facilities. High levels of stress in detention centres (Kotsioni 2013) are linked to the reporting of non-specific physical symptoms (Padovese at al. 2013) as a form of somatization of psychosocial stress suggesting underlying mental disorders. The 'Stakeholder Information Sessions'-SIS project showed how mental health was the major health issue affecting a large proportion of the refugee community, including post-traumatic stress disorder, depression, anxiety, psychosis, paranoia and self-harm; feelings of isolation and loneliness were also mentioned by refugees as major concerns to service providers (Aditus (NGO); UNHCR 2013). Other symptoms reported included stress anxiety disorders, panic attacks, and other psychiatric problems (Pavlopoulou et al., 2017) were said to be the most common symptoms in a particular camp (Simonnot et al., 2016). An Italian report underlines that although empirical data and scientific research on the topic on migrants mental health is still rare, practitioners and sector operators have experienced the increase in requests for psychiatric care from migrants who have lived traumatic situations, social marginalization, lack of social support and are therefore at higher risk of post-traumatic stress disorders (ANCI, CARITAS ITALIANA CITTALIA FONDAZIONE MIGRANTES SERVIZIO CENTRALE DELLO SPRA, 2016).

The MigHealth-Care survey results in terms of mental health related issues are shown below: The SF-36 general health, vitality and mental health subscale scores take values from 0 to 100, with lower values signalling more disability. The average mental health score was equal to 60.9 (std.dev. 21.2), the mean vitality score equal to 57.6 (std.dev. 22.4) and the average general health score equal to 63.6 (std. dev. 23.4). Note that, in general, normative scores for EU populations lie above 65.

It is interesting to examine how these scores vary by country of birth, adjusted for age, gender, final destination, country of interview, morbidity, comorbidity, having asylum and having other kind of permission. As presented in Table 8, higher mental health scores display migrants from Syria, and significantly higher compared with Afghanistan and Iraq ($p<0.001$). Higher Vitality scores present again migrants from Syria and Nigeria, significantly higher compared with Afghanistan and Iraq ($p<0.001$). For General Health scores, we observe again higher scores for migrants from Syria, significantly higher comparing to Afghanistan and Iraq (lowest general health score).

Table 1: Linear regression models with mental, vitality and general health scores as dependent variables

SF- 36 scores	Country of birth	Estimates (95% Confidence Interval)
Mental Health Score	**Afghanistan**[+]	-13.52 (-18.33 , -8.7)**
	Iraq [+]	-7.42 (-11.62 , -3.22)**
	Nigeria[+]	-5.52 (-11.06 , 0.01)
	Other[+]	-6.06 (-12.15 , 0.04)
Vitality Score	**Afghanistan**[+]	-13.38 (-18.31 , -8.44)**
	Iraq[+]	-6.82 (-11.1 , -2.54)*
	Nigeria[+]	-0.57 (-6.32 , 5.18)
	Other[+]	-5.52 (-11.69 , 0.66)
General health score	**Afghanistan**[+]	-5.42 (-10.37 , -0.47)*
	Iraq[+]	-7.76 (-12.14 , -3.39)**
	Nigeria[+]	-2.38 (-7.83 , 3.08)
	Other[+]	-5.4 (-11.76 , 0.95)

All estimates are adjusted for age, gender, final destination, country of interview, morbidity, comorbidity, having asylum and having other kind of permission.

[+]*compared with Syria as country of origin*

**p-value< 0.05*

***p-value< 0.001*

Table 2 presents the linear regression models of SF-36 scores by country of interview (10 countries of interview categorized in 9 categories by merging Austria and Germany), adjusted for age, gender, final destination, country of origin, morbidity, comorbidity, having asylum and having other kind of permission. There are statistically significant differences of all three SF-36 scores with respect to country of interview (p-value<0.001). Higher Mental health scores are shown by migrants in France, while lower scores are found in migrants in Cyprus (significantly lower compared with Italy). With respect to Vitality, higher scores are shown among migrants in Spain, while lower scores are found in Cyprus. Migrants in Bulgaria, Cyprus, Greece and Sweden had significantly lower vitality scored compared with Italy (p<0.05). Finally, higher General Health scores are found in Spain and Austria/Germany, while migrants in Bulgaria and Cyprus scored lower. Migrants in Italy scored significantly higher compared with Bulgaria and lower compared with Austria/Germany and Spain (p<0.05).

Table 2: Linear regression models with mental, vitality and general health scores as dependent variables.

SF-36 scores	Country of interview	Estimates (95% Confidence Interval)
Mental Health Score	**Austria & Germany**	2.63 (-2.61 , 7.86)
	Bulgaria	-5.68 (-11.85 , 0.49)
	Cyprus	-10.39 (-16.29 , -4.49)**
	France	5.04 (-4.11 , 14.18)
	Greece	-6.57 (-12.62 , -0.52)*
	Malta	1.7 (-11.15 , 14.55)
	Spain	2.46 (-2.14 , 7.05)
	Sweden	0.29 (-5.24 , 5.82)
Vitality Score	**Austria & Germany**	-1.22 (-6.55 , 4.12)
	Bulgaria	-10.82 (-17.11 , -4.52)**
	Cyprus	-13.31 (-19.26 , -7.37)**
	France	-9.15 (-18.41 , 0.11)
	Greece	-11.28 (-17.32 , -5.25)**
	Malta	-4.79 (-18.52 , 8.95)
	Spain	4.53 (-0.11 , 9.16)
	Sweden	-8.64 (-14.22 , -3.05)*
General Health Score	**Austria & Germany**	8.66 (3.21 , 14.11)*
	Bulgaria	-6.94 (-13.13 , -0.74)*
	Cyprus	-5.95 (-12.15 , 0.25)
	France	4.65 (-4.84 , 14.15)
	Greece	-3.72 (-10.02 , 2.59)
	Malta	-3.05 (-14.05 , 7.96)
	Spain	9.84 (5.04 , 14.65)*
	Sweden	-0.86 (-6.63 , 4.91)

All estimates are adjusted for age, gender, final destination, country of origin, morbidity, comorbidity, having asylum and having other kind of permission.

[+] *compared with Italy as country of interview*

**p-value< 0.05*

***p-value< 0.001*

Mental health is regarded as a health priority by informants of the focus groups which took place in all the consortium countries. Deterioration of mental health is influenced by social stigma and a lack of access to care. Health care systems are ill suited to address mental health issues for migrants and the model of reception in hosting countries exacerbates mental illness through isolation, inactivity, pervasive uncertainty and social deprivation.

Implications and challenges for health care service provision

The results of MigHealth-Care have indicated that in the coming years as migrant/refugee populations integrate into European communities the need for mental health care provision will increase and the pressure on mental health services across the EU will grow significantly.

A number of implications need to be considered when planning to address these future trends related to mental health.

1. Barriers to mental healthcare provision among migrants/refugees

A number of barriers hinder access to mental healthcare services among migrants and refugees. These are:

- *Language barriers*: Communication is most frequently the main obstacle when migrants/refugees access health care services. It becomes even more of a problem when accessing mental health care since the complexity of mental health issues requires good communication skills and a language flexibility in order for the patient to describe symptoms and the clinician to provide diagnosis and a therapeutic pathway (Giacco, Matanov, & Priebe, 2014; Bridges, Andrews, Deen, 2012; Hansen & Cabassa 2012).

- *Explanatory models of mental illness and expectations of care*: Cultural issues and perceptions about mental health among migrants/refugees may pose significant difficulty in terms of mental health care access. Nonwestern immigrant and refugee populations may have beliefs about mental health which hinder both diagnosis and adherence to treatment (Giacco, Matanov, & Priebe, 2014; Sandhu et *al.,* 2013).

- *Stigma and reluctance to seek help outside immediate social networks*: Stigma about mental health issues can lead immigrant and refugee populations to not seek medical care or to turn for support to immediate social, family or religious networks (Kaltman etal., 2013; Giacco, Matanov, & Priebe, 2014; Hansen & Cabassa 2012; Sung etal., 2013).

- *Social deprivation:* Migrants and refugees are at a high risk of marginalization and social isolation in addition to high levels of poverty, unemployment and economic deprivation which hinder access to mental social services which could be scarce and understaffed in areas in which migrants and refugees tend to live (Giacco, Matanov, & Priebe, 2014).

- *Widespread traumatic events due to war and conflict:* Recent migrant/refugee flows have originated from war and torture afflicted areas; most have been involved in a stressful migration journey and in most cases many have endured a lengthy stay under harsh conditions in countries of first entry. The impact on mental health is detrimental and the next decades will see a rise in mental health disorders directly linked to these conditions which will affect especially vulnerable populations (children, women).

Challenges for mental health care services

- *Service use registers:* There is a need for mental health care services to record in their registries immigrant/refugee status of patients. The EUGATE study assessed among other services mental healthcare provision in 16 European cities and found that 48% of all services kept a database of information on patients' service use but very few 25% recorded immigrant status (Giacco, Matanov, & Priebe, 2014; Snowden & McClellan, 2013).

- *Provision of interpreting services and bilingual staff, cultural competence:* Interpretation, language services and cultural mediation remain crucial issues in all health care

provision for migrants/refugees and in particular for mental health. European services are faced with huge challenges in providing high quality and appropriate services to migrants/refugees especially at local level and mostly in deprived and socially isolated areas.

- *Prevalence of mental health disorders*: Mental health conditions linked to war crimes, torture and harsh living conditions both in country of origin and well as the countries of first entry are expected to increase. There will be a huge need for well-trained mental health professionals in order to address, diagnose and treat these conditions especially among children.

Proposed policies/interventions at the health care system level defined

According to Giacco, Matanov, & Priebe, 2014 interventions and proposed policies in order to address the challenges of mental health care provision to migrants and refugees include:

> *(1) Sharing of information between mental health services and existing networks of voluntary organizations and social services, which are in a better position to carry out outreach activities, develop trusting relationships, and direct patients to mental health services.*
> *(2) Improving the collaboration between 'migrant specific' (voluntary organizations, charities) and generic mental health services, with regular communication and protocols to avoid overlap of activities.*
> *(3) Training of mental health professionals on cultural beliefs and explanatory models of mental disorders may improve attitudes to immigrant patients, and help reassure patients about their confidentiality concerns.*
> *(4) Integrating mental healthcare with physical healthcare can help to engage immigrants, in particular, but not exclusively, when significant physical health and mental health needs are present at the same time.*
> *(5) Psychoeducational family programs may increase knowledge about mental health problems. Considering the family-centered culture of many immigrant groups, such programs can influence help-seeking*
> *Technology-based interventions can support a translation of information, enable same language clinicians to access underserved populations, and support a cost-effective implementation of culturally tailored psychosocial programs*

A study conducted by Griffiths and Tarricone in 2017 indicated the need to develop cultural competence training programmes, transcultural Psychiatric Teams and Cultural Consultation Centres across mental health facilities.

Challenges/problems/obstacles/pitfalls in adopting the suggested policies/interventions

The main challenges faced in adopting the above suggested policies and interventions are related mainly to accessing mental health care services. Universal access to health care is a fundamental human right. Nevertheless, legal provisions especially for irregular migrants is not clear in many EU MS. How the health care system in a given country is structured is determined by policy at the government level which can have a huge effect on the

populations accessing these services especially when needs have not been taken into account or when legal gaps exist (for example the lack of health insurance and the extent of out of pocket payments) (O'Donnell et al., 2016).

Other obstacles include:

- Lack of political commitment at government and EU levels
- Lack of funding (cultural mediation, interpretation, language tools, specialized mental health care services)
- Austerity in certain EU countries
- Lack of specialized mental health care services especially at the local level
- Low levels of health literacy among migrants/refugees
- Lack of comprehensive health related integration policies
- Where integration policies do exist implementation knowledge especially at the local level is non existent
- Racism, stereotyping and xenophobia in the host populations often erroneously addressed by the media

Suggestions to overcome the identified obstacles

Community and local level initiatives are key for the mental health service provision to such a vulnerable part of European societies. A lot of talk is being made concerning innovation but innovation does not always concern technological advancements. It also refers to initiatives on the ground developed within an innovative collaboration between local stakeholders, practitioners and service providers who come together to test new ideas and improve practice.

Suggestions to overcome the above identified obstacles include:

- Sharing of good practice and collaboration at the government level for the adoption of relevant policy especially related to health and integration (O'Donnell etal., 2016; Mladovsky et al., 2012; Mladovsky, Ingleby, McKee, Rechel, 2012).
- Training of administrators and managers at the local and regional levels on planning mental health care services for migrants/refugees
- Incorporating relevant training in formal education (compulsory university courses), offering post graduate specialization and offering continuous education to relevant professionals
- Exploiting organized and established migrant/refugee networks to reach isolated refugee populations
- Addressing racism, stereotyping and xenophobia through community programs and relevant tools such as the MigHealth-Care tools for addressing health related misconceptions.
- Implementing programs to address health literacy among migrants/refugees
- Using EU funding opportunities to address funding gaps

Examples of solutions already implemented – local successful initiatives

In the context of the Mig-HealthCare project and WP5 a review of best practices was conducted by the MigHealth-Care consortium which identified a number of important projects which are recommended for local communities. The results of this work are available from D5.1 Report on models of community health and social care and best practices. The report will be available from the project website once relevant publications have been made.

Core elements of the identified interventions and models were: partnering with members from the target communities (e.g., employing staff and volunteers from communities) (Bhattacharyya & Benbow, 2013; Hamilton, Begley, Culler, 2014), community mobilization to stimulate outreach (Koehn etal., 2014; Harris & Maxwell, 2000; Weine, 2011); bridging cultural differences and language barriers through culturally and linguistically sensitive approaches (Hamilton, Begley, Culler, 2014; Weine, 2011; Fernando, 2005; Price etal., 2012; Sturm etal., 2017), education and training of health service providers on the needs of the target population (Moore, Overstreet, Like & Kristofco, 2007; Nadeau & Measham, 2008), providing information on mental health (awareness raising) (Harris & Maxwell, 2000; Priebe etal., 2012), availability of information in relevant languages (Bhattacharyya & Benbow, 2013), advocacy (Goodkind etal., 2014; Law, 2017), facilitating better integration (Price, 2012); responsiveness, coordination and planning of different health and social services (Misra, Connolly, Klynman, & Majeed, 2006; Nadeau & Measham, 2008; Priebe etal., 2012; Nadeau, Jaimes, Johnson-Lafleur, & Rousseau, 2017; Sijbrandij etal., 2017), establishing a sense of belonging, community and trust (Im, & Rosenberg, 2016; Nadeau, Jaimes, Johnson-Lafleur, & Rousseau, 2017; Murray, Davidson, Schweitzer, 2010), and promoting empowerment and cultural competency (Chen, Li, Fung, & Wong, 2015; Holden, 2014). Other issues that were considered relevant to secure success were funding to secure sustainability of the programmes (Nadeau, Jaimes, Johnson-Lafleur, & Rousseau, 2017) and community-based participatory research (Weine, 2011).

D5.1 Report on models of community health and social care and best practices indicated tools assessed by the consortium and proven effective in facilitating mental health care for migrants/refugees. These tools will be available also from the Mig-HealthCare toolbox (D5.3) which will be available from the project website. Some indicative tools developed targeting mental health of refugees/migrant identified through the literature search:

- ALMHAR app – Mental health aid for refugees: This app is designed for refugees who had to flee from their homes and who are/may be living in exile.
- SMILERS app (Smartphone Mediated Intervention for Learning Emotional Regulation of Sadness): This is a self-help program for Arabic-speaking people suffering from depressive symptoms.
- IOM_MigApp: This app, made by the International Organization of Migration simplifies access to migration-related information and equips the user with a host of tools to improve daily life in destination countries.

The Mig-HealthCare project piloted in Malta elements of the Roadmap and toolbox related to mental health. It is important for health professionals working with migrants/refugees to

be aware of the importance of mental health issues and be able to identify relevant problems during their first contact with patients. The Mig-HealthCare roadmap, toolbox and algorithm include sections on mental health providing health professionals with tools that can support them in their work. The algorithm includes mental health assessment indicators that can show whether a mental health problem could be present and refer the patient for further assessment by mental health professionals. The Roadmap and toolbox can be accessed from here: https://www.mighealthcare.eu/roadmap-and-toolbox

Scenario 2: Chronic disease management

Non-communicable diseases (NCDs) contribute 71% of mortality worldwide in 2016. Out of a total of 56.9 million deaths worldwide, 40.6 million were due to NCDs (WHO https://www.who.int/gho/ncd/mortality_morbidity/en/). The majority of these deaths occur in middle and low income countries (31.5 million) and 46% of these deaths occurred before the age of 70 years.

The major causes of chronic illnesses that affect the population are cardiovascular disease, cancer, diabetes and chronic respiratory disease. It is expected that the chronic disease burden will rise in the coming years. Diabetes only caused 1.6 million deaths in 2016 and the prevalence of the disease in the Eastern Mediterranean region (WHO data for 2014 is 13.7% (the highest globally) corresponding to 43 million of people suffering from the disease. (WHO 2014 http://www.who.int/news-room/fact-sheets/detail/diabetes). For example a substantial part of diabetic cases are placed in the countries of the Middle East and North Africa, from which the recent refugee/migrant flows into Europe originate from. The importance of this fact is currently under-valued mainly because the large majority of refugees/migrants in Europe have not yet reached their final destination and the integration process is still unfolding. Moreover, there is tremendous pressure to control more immediate health problems such as acute respiratory infections, skin conditions and mental health issues linked to post-traumatic effects due to violence and trauma.

However, it is anticipated that the health care systems in Europe will have to accommodate for a high demand for health care services for chronic conditions among migrants/refugees in the coming years.

Description of health issue

A consistent component of both research and grey literature focuses on the link between migrant background and health related behaviors and risk factors. Newly arrived migrants are usually relatively healthy in terms of acute infectious diseases, but they are at risk of developing certain non-communicable diseases. Apart from the existence of specific chronic disease risk factors an additional reason for this apparent vulnerability are that migrants make more sparing use of preventive screening and preventative services especially when they belong to certain additionally vulnerable groups such as first generation migrant women, (Rechel et al., 2012; Rommel, Saß, Born, & Ellert, 2015).

Some groups might be at particular risk of non-communicable diseases arising from obesity and insufficient physical activity. This is explained by the patterns of disease in countries of origin, disadvantageous living conditions, precarious employment and trauma. However, it is difficult to compare across countries as studies seem to focus on specific health conditions and ethnic groups.

Implications and challenges for health care service provision

It is anticipated that in the future European health care systems will face an increased demand for health care services to address chronic conditions including diabetes by migrants/refugees in addition to the expected demand from the local population.

A number of implications need to be considered when planning to address future trends related to non-communicable diseases including diabetes among migrants/refugees.

- *Impact of poverty*: Poverty can impact both health status and the management of illness. Migrants and refugees experience poverty as well as marginalization, stigmatization and social isolation which have severe consequences for their health and wellbeing and can influence the onset of non-communicable diseases due to inadequate nutrition, unemployment, poor living conditions, lack of screening and other preventive measures.
- *Health literacy:* the management of chronic diseases refers to lifelong changes in behaviour and close adherence to therapy. As such, a standard level of understanding and commitment on behalf of the individual involved is required in order to guarantee successful management of the disease and to prolong healthy living.
- *Cultural adaptation of the proposed strategies/health measures:* clearly, a series of protocols and strategies for the management and the prevention of chronic diseases are in place, but it is generally acknowledged that the success of their implementation largely depends on the acceptance from the target population. As such, it is a known fact the refugee/migrant population groups in Europe share distinct cultural beliefs and attitudes than the local population; therefore this element should be taken into account when designing/adapting/proposing approaches and strategies to respond to their chronic disease health care needs.

Proposed policies/interventions at the health care system level defined

Interventions towards chronic diseases should be implemented across the whole spectrum of prevention. At the primary level, policies and interventions should target the younger age groups (children and adolescents) in order to increase their level of knowledge and awareness on the major risk factors causing the main categories of chronic disease (CVD, cancer, diabetes, and chronic respiratory disease). This can be done through health education and health promotion campaigns within the educational system e.g. anti-smoking campaigns, health eating education and uptake of physical activity. These policies/interventions will also target refugee/migrant children and adolescents provided that they follow an education integration programme which takes into account the specific conditions of these population groups with respect to culture and religion.

Addressing the adult population, interventions should be at the secondary prevention level by increasing awareness on the early signs of chronic disease through regular examination of high risk groups in combination with health education campaigns to reduce exposure to main risk factors such as smoking, fat rich diet, alcohol consumption, sedentary lifestyle.

The next level should be the provision of adequate treatment for chronic disease patients along with the required supporting structure for successful disease management (e.g. equipment, physiotherapy, self-management programmes).

Challenges/problems/obstacles/pitfalls in adopting the suggested policies/interventions

Chronic disease prevention and management is a complex undertaking that requires fundamental and structural changes in the health care systems in order to be effective and sustainable. Another major issue is the fact that a large part of the proposed interventions especially at the primary prevention level is that they require the collaboration of a multitude of public sectors so that long term changes can be ensured, mainly from health and education. Such collaborations have been proven cumbersome and challenging in many instances in many countries in the past.

Another challenge will be to sustain the integration of refugee/migrant children into the educational system in each country.

Training of healthcare professionals in the early detection and management of chronic diseases to ensure proper monitoring and follow up.

Adequate funding, monitoring and evaluation of the policies/interventions to introduce modifications or changes if necessary.

Suggestions to overcome the identified obstacles

Law and policy development are in the core of governmental activities in each country, however, their implementation in the case of chronic disease prevention and management should also stem from the local government level. Since the aim of these activities is the community, it is sensible to allocate the responsibility of applying these policies on the local governments. This is a challenge, as the systems vary substantially across the European MS, however, there is always a local structure that can undertake this task at the local community level (e.g. municipality, local healthcare directorate) and should be strongly encouraged to do so.

Partnerships have proven to be an effective way of involving all the interested stakeholders in health promotion activities, so these efforts should incorporate the contribution of the interested parties e.g. schools, teachers' unions, parent associations, health professional bodies.

Training is of the essence and in particular in the prevention and management of chronic diseases. It is essential to realise that such training does not only apply to the health care

professions but those who will work in education should be equipped with the basic knowledge on health education and principles of health promotion.

Examples of solutions already implemented – local successful initiatives

In the context of the Mig-HealthCare project and WP5 a review of best practices was conducted by the MigHealth-Care consortium which identified a number of important projects which are recommended for local communities. The results of this work are available from D5.1 Report on models of community health and social care and best practices. The report will be available from the project website once relevant publications have been made.

Core elements of described interventions in the literature are culturally and linguistically sensitive education (Escribà-Agüir, Rodríguez-Gómez & Ruiz-Pérez, 2016; Shirazi, Shirazi & Bloom, 2015; Bader etal., 2016; Siddaiah etal., 2014), involvement and support of the migrant communities' infrastructures (van de Vijver, 2015), awareness raising about health risks (Ahmad, 2013), outreach approaches through families and community peers (Ahmad, 2013; Alzubaidi, Namara, & Browning,2016; Sethi, Jonsson, Skaff, & Tyler, 2017), facilitating the 'community voice', intersectional collaboration, and securing sustainability through funding (Ahmad, 2013).

D5.1 Report on models of community health and social care and best practices indicated tools assessed by the consortium and proven effective in facilitating mental health care for migrants/refugees. These tools will be available also from the Mig-HealthCare toolbox (D5.3) which will be available from the project website. A good example of a tool developed to facilitate the management of chronic disease is the Chronic Care Model which is an evidence-based framework that identifies the main components of the health system that need to be addresses in order to support self-management of chronic diseases (https://www.niddk.nih.gov/health-information/communication-programs/ndep/health-professionals/practice-transformation-physicians-health-care-teams/team-based-care/chronic-care-model).

In the case of diabetes, the chronic care model addresses the areas of clinical information systems, self-management support for the patient and suggests community resources.

The model was modified according to the setting (Latino population groups) in order to account for the literacy level, the socioeconomic status of the target population in order to increase effectiveness (Philis-Tsimikas, Gallo, 2014). As such, simple recording forms were used to monitor elements of diabetes management such as the HbA1c levels, dietary pattern, activity levels and medication taking in a pictorial form to facilitate record keeping. Moreover, the health professional team underwent specific training on the specific cultural needs of the population to increase the effectiveness of the approach. Along with achieving successful monitoring of diabetes the aim was to decrease barriers to care and to increase patient activation and self-efficacy.

Within the Mig-HealthCare project several pilots addressed issues of NCDs through the implementation of community based approaches and tools.

For example The University of Valencia piloted a Health Education and Lifestyle Intervention to prevent the incidence of chronic conditions among Migrants addressing their acculturation process (HELP-MAP).

The pilot was developed within the activities of two community services:

- RedCross–Humanitarian Response
- Primary care centres of Clinico Health Department

The target group was immigrants over 18 years old who were users of Red Cross humanitarian services, including temporary accommodation and persons in contact with the Social Worker within the primary care centres

The intervention appraises 4 group sessions of over a 1 – month period.

- The duration of each session was around 1 hour and a half.
- The groups consisted of 10 – 15 participants.
- The intervention is based on two main components regarding health education and lifestyle change to prevent chronic conditions :
  - Health literacy
  - Life styles
  - Physical health
  - Mental health
  - Dietary patterns

- Acculturation was taken into consideration as a key factor influencing the adoption of healthy lifestyles
- Staff involved in the intervention was trained on Motivational Interviewing and the Transtheoretical Model of Change

  - The majority of participants reported that they strongly agree (63,3%; n=31) that through this pilot action they acquired important information concerning their health.
  - Furthermore, 44.9% of the participants (n=22) strongly agree that the information they acquired through the pilot action improved their health.
  - The majority somewhat (24.5%; n=12) or completely agrees (38.8%; n=19) with the improvement of their accessibility to healthcare access.

Several characteristics of the intervention were found important concerning their transferability to different European contexts:

1. The multi-component model of the intervention allows a flexible implementation going through one theme by others in each session.
2. The multi-cultural background of the intervention allows the intervention to be applied to more than one cultural group.
3. Involvement of professionals and volunteers.
4. Involvement of migrants and refugees

In Germany partners piloted the 'Circle of Health' as a Framework for Promoting the Health of Migrants and Refugees emphasising:

- Healthy diet and physical activity as key factors in preventing important NCD's particularly in migrants
- Stimulate holistic and community-oriented approaches in Health Promotion
- Create shared knowledge and understanding among health professionals and migrant communities
- Assess the "Circle of Health" which is one of the practices identified in the Mig-HealthCare roadmap/toolbox as a hands-on, accessible tool/conceptual framework for reaching these goals

The target group included:

- Professionals (health promotion)
- Members of migrant communities (intercultural health mediators)

The main results included a five hour workshop organised in Berlin (12 professionals/5 mediators).

The main results were:

Positive aspects
Topics/ Categories highly relevant
CoH stimulated discussion
Facilitated sharing and gaining relevant knowledge on health promotion
Stimulation of networks

Italy piloted a Community Health Educator model which is based on the recruitment and training of members of the ethnic minorities and/or disadvantaged communities who then participate in the implementation of health promotion initiatives in their neighborhoods/areas of residence. Community Health Educators are people who, in coordination with health professionals, work mainly outside healthcare facilities using their social networks to approach community members to promote health and wellbeing issues.

Health promotion activities were carried out by an Indian mediator/educator in the Valdarno area (Arezzo). Meetings were organized both in the Family Counseling Centre and in other meeting places. The purpose of these meetings was to:

- Raise the awareness of foreign communities on screening, reproductive health and the services offered by the Family Counseling Centre;
- Create a bond of trust with the participants in order to become a constant reference point;

The activity reached about **100 women**. Despite a very short activation period, the pilot has proved to be an interesting experimentation for the promotion of community health at local level. Some significant aspects of this experience were the strong link with our Community Health Educator. The most important message received was the active dissemination of the message: **"Having met and talked to these people means having talked to thousands of other people they know".** It is important to spread the message about the activity performed by the Community Health Educator, which is fundamental to facilitate and improve access to services.

Finally, the French pilot focused on a per-support program to influence healthy habits among under aged migrants/refugees.

The analysis shows that peer-support triggers empowerment which in turn increases self-esteem of UAMs. Empowerment develops skills among underage migrants/refugees and helps those isolated to participate more. Support from the team is paramount to implement peer-support.

Main messages

(1) Empowerment improved self-esteem of UAMs.
(2) The UAMs improved communication skills and are better included into the program.

Scenario 3: Oral health

The research results of MigHealth-Care have indicated that in the coming years as migrant/refugee populations integrate into European communities the need for oral and dental health care provision will increase and the pressure on dental health services across the EU will grow significantly.

Description of health issue and situation scene set

Oral health and dental care has been found to lack among child migrants. A study of 12 years old Austrians showed that the prevalence of caries among children born to migrants was 42 percent higher compared with children who did not have a migrant background. Children with a migrant background are more affected by gingivitis (gum inflammation) and less likely to seek orthodontic treatment or counselling compared with other twelve-year-olds. The report underlines how better use of group prophylaxis and individual health care prevention would be a means of reducing unequal distribution of health risk (Bodenwinkler, Kerschbaum, & Sax, 2012).

In addition the MigHealth-Care survey indicated that the most frequent chronic health problem migrants/refugees face is caries (bad teeth) (12.7%) whereas in accordance the most frequent health issues found important by migrants is teeth problems (51%).

Dental caries is the most prevalent chronic disease in children with oral health being a major issue in young ages (less than 6 years of age) 9Benjamin, 2010). As such, primary prevention activities are of utmost importance in order to reduce the magnitude of this problem. Moreover, the prevalence of caries in primary teeth is quite high in the US and in many Arab countries as in 1 in 4 children aged 2-5 years corresponding to a prevalence of 73% (Dye, Thornton-Evans, Li, Lafolla, 2015; Al-Malik, Holt, Bedi, 2003).

Oral health problems are also associated with a number of different psychological and social well-being problems that affect not only the child but also the whole family. Hence gradually oral health is being included in the determinants of quality of life and discussions are focusing around the importance of placing oral health as a top priority within health care systems (McGrath, Broder, Wilson-Genderson, 2004).

Implications and challenges for health care service provision defined

The provision of oral care presents great variability across the European countries, but in most cases it is characterized by high cost, long waiting times and restricted range of services if offered within the state health systems. State and private insurance systems usually exclude or offer limited oral health care coverage.

The integration of refugee/migrant populations with anticipated increased prevalence of oral health issues will only put additional strain on the health care systems due to the high demand and the need for specialised personnel. In the majority of cases, refugees/migrants as well as a substantial fraction of the local populations will not be able to meet the high cost

of private dental care, mainly due to the presence of adverse social factors such as unemployment and reduced income.

A challenge is therefore to plan ahead and to increase the capacity of the state health care systems to accommodate the needs of the increased demand and to incorporate the necessary tools that will provide a cross-sectional overview of the specific needs of the refugee/migrant population, so as to facilitate planning of future activities and measures.

Proposed policies/interventions at the health care system level defined

- Monitor the oral health status of the target population to identity community healthcare problems (e.g. determine the prevalence of dental caries in schoolchildren, access to oral health services for insured and non-insured population, availability of oral health services in various geographical areas, professionals specialised in community oral health, oral health data recording to facilitate monitoring, aggregate oral health promotion efforts)
- Diagnose and analyse the oral health risks in the community (e.g. identify specific oral health problems in the community and the environment such as water fluoridation levels, lack of specialised community health workers)
- Inform and educate the target population (e.g. through health education campaigns, useful material, media involvement, community groups, formation of partnerships)
- Advocacy to promote policy and law changes and enforcement
- Training in community oral health, geographical allocation of professionals and monitoring of activities

Challenges/problems/obstacles/pitfalls in adopting the suggested policies/interventions

- Oral health may not be considered a health priority
- Compliance of the targeted population may be small
- Motivation of the parents/caregivers may be very limited, especially in the light of more pressing needs (job seeking, housing conditions etc).
- Limited funding of local dental community programmes due to austerity measures
- Limited duration of community oral health programme combined with lack of follow up
- Lack of trained health workers in community oral health practices
- Limited attendance of refugee/migrant children in education/school activities

Suggestions to overcome the identified obstacles

The use of oral health assessment tools specific for the refugee/migrant population such as the Early Childhood Oral Health Impact Scale(ECOHIS) designed to assess the impact of oral health in younger children through their caregivers (Pahel, Rozier, Slade, 2007) which has been validated for use by Arabic speaking population (Farsi et al., 2017). This tool when accompanied by a clinical dental examination, preferably in a school-setting following the WHO caries diagnostic criteria (WHO 1997, Oral health surveys) helps to identify the key issues related to oral health care needs in the specific population and facilitates intervention.

A series of other instruments to assess the magnitude of oral health problems in children addressing children and their parents such as the Parental Caregiver Perceptions Questionnaire (PCPQ- Jokovic et al., 2002), the child oral impact daily performance (COHIP, Cherunpomg et al., 2004), the child perception questionnaire and caries questionnaire (Gilchrist F. Development of a child-centred caries specific measure of oral health related quality of life 'CARIES-QC'. The University of Sheffield. [cited Sep 1, 2016]; Available from:https://www.sheffield.ac.uk/dentalschool/research/create/teethanddentists).

Community partnerships are essential in securing the motivation and participation of local community members in health promotion activities.
Funding small scale dental clinics maintained by local refugee/migrant associations is an intervention that has been proven very effective in other local community settings such as the Aborignal communities in Australia (Villarosa et al., 2018).

The partnership with educational authorities is also essential, as the school setting provides an excellent opportunity to address the majority of children aged 5-12 years. Finally, training of community dental health workers is very important.

Examples of solutions already implemented – local successful initiatives

In the context of the Mig-HealthCare project and WP5 a review of best practices was conducted by the MigHealth-Care consortium which identified a number of important projects which are recommended for local communities. The results of this work are available from D5.1 Report on models of community health and social care and best practices. The report will be available from the project website once relevant publications have been made.

Collaboration with local communities to raise the oral health levels, through a series of activities (Dimitropoulos et al., 2018). Use of the precede-proceed model to identify the needs of young school children 5-12 years, conduct an epidemiological assessment to identify the predisposing, reinforcing and enabling factors with regards to oral health, along with an educational and environmental assessment.

Children in Aboriginal communities consented to participate to dental screening, assessment, therapy and follow-up care by the local preventive services. Current oral hygiene practices were recorded, as well as prior dental problems, food consumption and food knowledge. Similar information was collected from their parents/guardians. Based on the results of the assessment, a tailor-made intervention was designed including regular community meetings, distribution of toothbrushes, sessions on how to use a toothbrush and on proper brushing. The results of the study were made known to the local community and discussed. The collaboration of local community members, local authority staff and health workers is crucial in ensuring success of the intervention.

References

Ahmad F, Jandu B, Albagli A, Angus J, Ginsburg O. Exploring ways to overcome barriers to mammography uptake and retention among South Asian immigrant women. Health Soc Care Community. 2013;21(1):88-97.

Al-Malik MI, Holt RD, Bedi R. Prevalence and patterns of caries, rampant caries, and oral health in two- to five-year-old children in Saudi Arabia. J Dent Child (Chic). 2003;70(3):235–4
Alzubaidi H, Mc Namara K, Browning C. Time to question diabetes self-management support for Arabic-speaking migrants: exploring a new model of care. Diabet Med. 2017;34(3):348-55. Epub 2016/11/20.

ANCI,CARITAS ITALIANA CITTALIA FONDAZIONE MIGRANTES SERVIZIO CENTRALE DELLO SPRA. (2016). Rapporto sulla protezione internazionale in Italia 2016. Retrieved from http://viedifuga.org/wp-content/uploads/2016/11/report-on-international-protection-in-Italy-2016_light.pdf

Ariana C. Villarosa, Amy R. Villarosa, Yenna Salamonson, Lucie M. Ramjan, Mariana S. Sousa, Ravi Srinivas, Nathan Jones, Ajesh George The role of indigenous health workers in promoting oral health during pregnancy: a scoping review BMC Public Health. 2018; 18: 381.

Athena Philis-Tsimikas, Linda C. Gallo Implementing Community-Based Diabetes Programs: The Scripps Whittier Diabetes Institute Experience Curr Diab Rep. 2014 Feb; 14(2): 462.

Bader A, Musshauser D, Sahin F, Bezirkan H, Hochleitner M. The Mosque Campaign: a cardiovascular prevention program for female Turkish immigrants. Wien Klin Wochenschr. 2006;118(7-8):217-23. Epub 2006/06/24.

Benjamin RM. Oral health: the silent epidemic. Public Health Rep. 2010;125(2):158–9)

Bhattacharyya S, Benbow SM. Mental health services for black and minority ethnic elders in the United Kingdom: a systematic review of innovative practice with service provision and policy implications. Int Psychogeriatr. 2013;25(3):359-73.

Bodenwinkler, A., Kerschbaum, J., & Sax, G. (n.d.). Länder-Zahnstatuserhebung 2012 Zwölfjährige in Österreich Zwölfjährige Kinder mit und ohne Migrationshintergrund. Retrieved July 26, 2017, from http://www.hauptverband.at/cdscontent/load?contentid=10008.597921

Bridges AJ, Andrews AR, Deen TL. Mental health needs and service utilization by Hispanic immigrants residing in mid-southern United States. J Transcult Nurs 2012; 23:359–368.

Chen YY, Li AT, Fung KP, Wong JP. Improving Access to Mental Health Services for Racialized Immigrants, Refugees, and Non-Status People Living with HIV/AIDS. J Health Care Poor Underserved. 2015;26(2):505-18.

Crepet, A., Rita, F., Reid, A., Boogaard, W. V. den, Deiana, P., Quaranta, G., … Carlo, S. D. (2017). Mental health and trauma in asylum seekers landing in Sicily in 2015: a descriptive study of neglected invisible wounds. Conflict and Health, 11(1), 1. https://doi.org/10.1186/s13031-017-0103-3

Dimitropoulos Y, Gunasekera H, Blinkhorn A, Byun R, Binge N, Gwynne K, Irving MA collaboration with local Aboriginal communities in rural New South Wales, Australia to determine the oral health needs of their children and develop a community-owned oral health promotion program. Rural Remote Health. 2018 Jun;18(2):4453. doi: 10.22605/RRH4453. Epub 2018 Jun 12.

Dye BA, Thornton-Evans G, Li X, Lafolla TJ. Dental caries and sealant prevalence in children and adolescents in the United States, 2011–2012. NCHS Data Brief. 2015;191:1–8.

Escribà-Agüir V, Rodríguez-Gómez M, Ruiz-Pérez I. Effectiveness of patient-targeted interventions to promote cancer screening among ethnic minorities: A systematic review. Cancer Epidemiol. 2016;44:22-39.

Fernando S. Multicultural mental health services: projects for minority ethnic communities in England. Transcult Psychiatry. 2005;42(3):420-36. Epub 2005/11/05.

Gherunpong S, Tsakos G, Sheiham A. Developing and evaluating an oral health-related quality of life index for children; the CHILD-OIDP. Community Dent Health. 2004;21(2):161–9.

Giacco, D., Matanov, A., & Priebe, S. (2014). Providing mental healthcare to immigrants: current challenges and new strategies. Current opinion in psychiatry, 27(4), 282-288.

Goodkind JR, Hess JM, Isakson B, LaNoue M, Githinji A, Roche N, et al. Reducing refugee mental health disparities: a community-based intervention to address postmigration stressors with African adults. Psychol Serv. 2014;11(3):333-46. Epub 2013/12/25.

Hamilton J, Begley C, Culler R. Evaluation of partner collaboration to improve community-based mental health services for low-income minority children and their families. Eval Program Plann 2014;45:50-60.

Hansen MC, Cabassa LJ. Pathways to depression care: help-seeking experiences of low-income Latinos with diabetes and depression. J Immigrant Minority Health 2012; 14:1097–1106.

Harris K, Maxwell C. A needs assessment in a refugee mental health project in north-east London: extending the counselling model to community support. Med Confl Surviv. 2000;16(2):201-15.

Holden K, McGregor B, Thandi P, E. F, Sheats K, Belton A, et al. Toward culturally centered integrative care for addressing mental health disparities among ethnic minorities. Psych Serv. 2014;11(4):357-68.

Im H, Rosenberg R. Building Social Capital Through a Peer-Led Community Health Workshop: A Pilot with the Bhutanese Refugee Community. J Community Health. 2016;41(3):509-17.

Jokovic A, Locker D, Stephens M, Kenny D, Tompson B, Guyatt G. Validity and reliability of a questionnaire for measuring child oral-health-related quality of life. J Dent Res. 2002;81(7):459–63.

Kaltman S, Hurtado de Mendoza A, Gonzales FA, Serrano A. Preferences for trauma-related mental health services among Latina immigrants from Central America, South America, and Mexico. Psychol Trauma 2013. doi: 10.1037/a0031539

Koehn SD, Jarvis P, Sandhra SK, Bains SK, Addison M. Promoting mental health of immigrant seniors in community. Ethnic Ineq Health Soc Care. 2014;7(3):146-56.

Law S. The role of a clinical director in developing an innovative assertive community treatment team targeting ethno-racial minority patients. Psychiatr Q. 2007;78(3):183-92. Epub 2007/03/27.

McGrath C, Broder H, Wilson-Genderson M. Assessing the impact of oral health on the life quality of children: implications for research and practice. Community Dent Oral Epidemiol. 2004;32(2):81–5.

Misra T, Connolly AM, Klynman N, Majeed A. Addressing mental health needs of asylum seekers and refugees in a London Borough: Developing a service model. Prim Health Care Res Dev. 2006; 7(3):249-56.

Mladovsky P, Ingleby D, McKee M, Rechel B. Good practices inmigrant health: the European experience. Clinical Medicine (London,England) 2012;12:248–52.

Mladovsky P, Rechel B, Ingleby D, McKee M. Responding to diversity:an exploratory study of migrant health policies in Europe. HealthPolicy 2012;105:1–9.

Moore DE, Overstreet KM, Like RC, Kristofco RE. Improving Depression Care for Ethnic and Racial Minorities: A Concept for an Intervention that Integrates CME Planning with Improvement Strategies. J Contin Educ Health Prof. 2007;27(S1):S65-S74.

Murray KE, Davidson GR, Schweitzer RD. Review of refugee mental health interventions following resettlement: best practices and recommendations. Am J Orthopsychiatry. 2010;80(4):576-85. Epub 2010/10/19.

Nada J. Farsi, Azza A. El-Housseiny, Deema J. Farsi, Najat M. Farsi Validation of the Arabic Version of the Early Childhood Oral Health Impact Scale (ECOHIS) BMC Oral Health. 2017;17:60.

Nadeau L, Jaimes A, Johnson-Lafleur J, Rousseau C. Perspectives of Migrant Youth, Parents and Clinicians on Community-Based Mental Health Services: Negotiating Safe Pathways. J Child Fam Stud. 2017;26(7):1936-48. Epub 2017/07/07.

Nadeau L, Measham T. Immigrants and mental health services: increasing collaboration with other service providers. Can Child Adolesc Psychiatr Rev. 2005;14(3):73-6. Epub 2008/11/26.
O'Donnell, C. A., Burns, N., Mair, F. S., Dowrick, C., Clissmann, C., van den Muijsenbergh, M., ... & de Brun, T. (2016). Reducing the health care burden for marginalised migrants: the potential role for primary care in Europe. Health Policy, 120(5), 495-508.

Padovese, V., Egidi, A. M., Melillo Fenech, T., Podda Connor, M., Didero, D., Costanzo, G., & Mirisola, C. (2013). Migration and determinants of health: clinical epidemiological characteristics of migrants in Malta (2010–11). Journal of Public Health, 36(3), 368-374.

Pahel, BT, Rozier RG, Slade GD. Parental perceptions of children's oral health: the Early Childhood Oral Health Impact Scale (ECOHIS). Health Qual Life Outcomes. 2007;5:6.

Pavlopoulou, I., Tanaka, M., Dikalioti, S., Samoli, E., Nisianakis, P., Boleti, O., & Tsoumakas, K. (2017). Clinical and laboratory evaluation of new immigrant and refugee children arriving in Greece., 17(1), 132. https://doi.org/10.1186/s12887-017-0888-7

Price OA, Ellis BH, Escudero PV, Huffman-Gottschling K, Sander MA, Birman D. Implementing trauma interventions in schools: Addressing the immigrant and refugee experience. Adv Educ Div Comm Res Polic Prax.2012; 9:95-119.

Priebe S, Matanov A, Schor R, Strassmayr C, Barros H, Barry MM, et al. Good practice in mental health care for socially marginalised groups in Europe: a qualitative study of expert views in 14 countries. BMC Public Health. 2012;12:248. Epub 2012/03/30.

Rachel Taylor-East, A. R., & Julian Caruana, A. G. (2014). The mental health services for detained asylum seekers in Malta. BJPsych Int., (13 (2)), 32–35.

Sandhu S, Bjere NV, Dauvrin M, et al. Experiences with treating immigrants: a qualitative study in mental health services across 16 European countries. Soc Psychiatry Psychiatr Epidemiol 2013; 48:105–116.

Sethi S, Jonsson R, Skaff R, Tyler F. Community-Based Noncommunicable Disease Care for Syrian Refugees in Lebanon. Glob Health Sci Pract. 2017;5(3):495-506. Epub 2017/09/21.

Shirazi M, Shirazi A, Bloom J. Developing a culturally competent faith-based framework to promote breast cancer screening among Afghan immigrant women. J Religion Health. 2015;54(1):153-9.

Siddaiah R, Roberts JE, Graham L, Little A, Feuerman M, Cataletto MB. Community Health Screenings Can Complement Public Health Outreach to Minority Immigrant Communities. PCHP. 2014;8(4):433-9.

Sijbrandij M, Acarturk C, Bird M, Bryant RA, Burchert S, Carswell K, et al. Strengthening mental health care systems for Syrian refugees in Europe and the Middle East: integrating scalable psychological interventions in eight countries. Eur J Psychotraumatol. 2017;8(sup2):1388102. Epub 2017/11/23.
Simonnot, N., Rodriguez, A., Nuenberg, M., Fille, F., Aranda-Fernandez, P.-E., & Chauvin, P. (2016). Access to healthcare for people facing multiple vulnerabilities in health in 31 cities in 12 countries.

Snowden LR, McClellan SR. Spanish-language community-based mental health treatment programs, policy-required language-assistance programming, and mental health treatment access among Spanish-speaking clients. Am J Public Health 2013; 103:1628–1633.

Sturm G, Guerraoui Z, Bonnet S, Gouzvinski F, Raynaud JP. Adapting services to the needs of children and families with complex migration experiences: The Toulouse University Hospital's intercultural consultation. Transcult Psychiatry. 2017;54(4):445-65. Epub 2017/08/02.

Sung J, Mayo N, Lasley C, Ko MJ. Characteristics of collaborative care in increasing access to mental health service in the Asian community. Fam Systs Health 2013; 31:307–318.

van de Vijver S, Oti S, Moll van Charante E, Allender S, Foster C, Lange J, et al. Cardiovascular prevention model from Kenyan slums to migrants in the Netherlands. Global Health. 2015;11:11. Epub 2015/04/19.

Weine SM. Developing preventive mental health interventions for refugee families in resettlement. Fam Process. 2011;50(3):410-30. Epub 2011/09/03.

Aditus, U. (2013). Nitkellmu? Refugee Integration Perspectives in Malta (Summary report compiled by aditus and UNHCR) (p. 33). Malta: aditus (NGO); UNHCR. Retrieved from http://www.unhcr.org.mt/news-and-views/press-releases/732-nitkellmu-perspectives-on-refugee-integration-in-malta