



# WARIFA Community Health Risk Profiles

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## User Manual



# WARIFA PROJECT



## What's WARIFA?

**WARIFA** (ARTIFICIAL INTELLIGENCE AND THE PERSONALIZED PREVENTION AND MANAGEMENT OF CHRONIC CONDITIONS) is a collaborative European project funded by Horizon 2020, the research & innovation funding programme of the European Commission.

The consortium of WARIFA is composed of 12 partners from 6 European countries.

WARIFA aims to develop a prototype of a combined early risk assessment **App** that will provide individual citizens with **personalised recommendations** for the **prevention of non-communicable diseases** - such as cancer, cardiovascular diseases, diabetes and chronic respiratory diseases – which represent the leading causes of death for the citizens of the European Union. WARIFA will be available to individual citizens via a user-friendly interface on their smartphone.

You can find more information about WARIFA activities and consortium at this link: <https://www.warifa.eu/>



# WARIFA COMMUNITY HEALTH RISK PROFILES (1/2)



The **WARIFA Community Health Risk Profiles** website is an integral part of the WARIFA project. With a focus on promoting community well-being, this platform is dedicated to **delivering valuable insights into community public health profiles of pilot municipalities from Norway, Romania and Spain** providing essential information on contextual and environmental risk factors.

In addition, it is hoped that this website can **complement the information provided to users of the WARIFA App** by providing data about their communities.

**Access the website here:**



**<https://warifa-communityhealthprofiles.eu/>**

## Scope

The web-based platform aims at supporting **policy makers, public health experts and other practitioners** to better understand the crucial interplay within the context, environment and health in their countries and cities.

It also supports **individuals** to gather new knowledge and recommendations to make informed decisions and take proactive steps towards preventing non-communicable diseases.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017385

# WARIFA COMMUNITY HEALTH RISK PROFILES (2/2)



## How can Community Health Risk Profiles support?

The emphasis on **contextual and environmental information applied to public health** will provide policy makers, practitioners, and other experts with the needed information background, tools, and resources to better plan and implement strategies & measures for enhanced non-communicable diseases prevention and healthier lifestyles of their communities.

At the same time, community health risk profiles can **provide citizens with the knowledge they need to make choices tailored to the characteristics of their municipality and adopt healthier lifestyles**. On the platform, you will find out valuable and updated information on factors such as UV index, air pollution, as well as water quality and prevalent diseases at the municipal level.

By bringing these factors to the forefront, our mission is to empower policy makers, health practitioners, and individuals alike with accurate and up-to-date information.



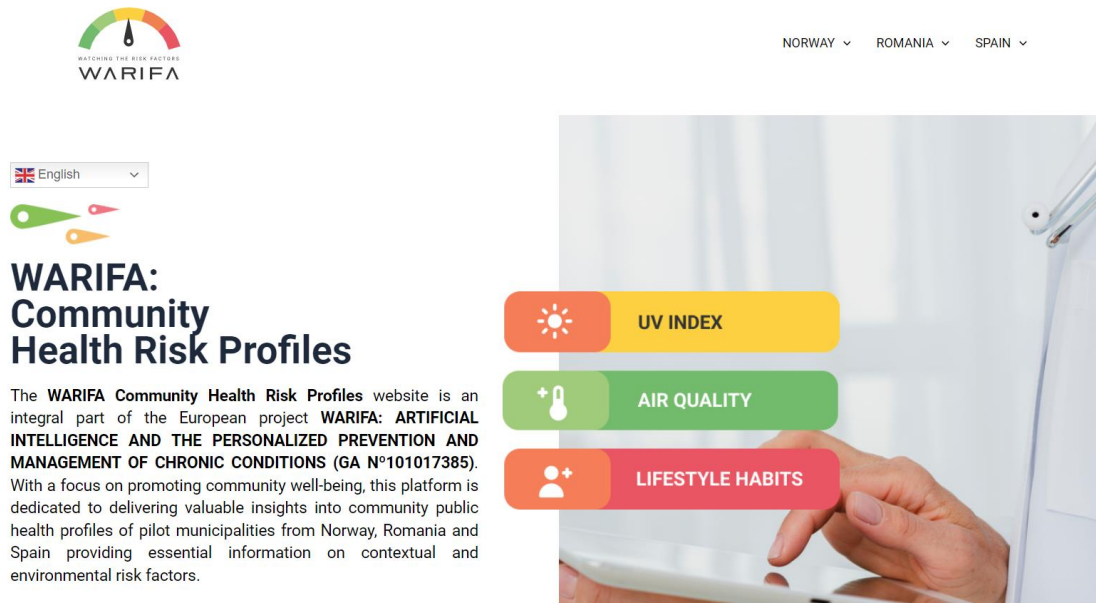
# WEBSITE ACCESS AND HOMEPAGE



 <https://warifa-communityhealthprofiles.eu/>

On the website, you will land on the **homepage** of our community profiles. There, you will find a short introductory presentation about the aims and objectives of this platform.

To read the homepage text, you can choose your preferred language by selecting it through this drop-down menu:



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# FEATURED MUNICIPALITIES



Beyond the homepage, you will be able to consult information about the community health risk profiles of **four municipalities from Norway, Romania, and Spain**. You can select your preferred one by clicking on the corresponding country:

NORWAY ▾ ROMANIA ▾ SPAIN ▾

Tromsø

The municipalities featured on our platform are:

NORWAY  
Tromsø



ROMANIA  
Braşov



SPAIN  
Santa Cruz de Tenerife Las Palmas



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# MUNICIPALITY WEB PAGES



## Municipality web page:

For each municipality web-page, a common structure has been followed, plus some content-specific elements that characterize each of those.



**Context information:** population, socio-economic data, prevalent diseases, lifestyle habits.



**Environmental health risk factors:** UV rays and air quality (common to all cities), as well as other relevant factors related to the environmental context of each municipality e.g., bath water for Santa Cruz de Tenerife.



**Resources:** external resources to consult.



**Separated section dedicated to citizens:** recommendations, myth busting, quizzes.

### RELEVANT INFORMATION

Population

Prevalent diseases

Life habits

### ENVIROMENTAL FACTORS

UV rays

Air quality

Other enviromental factors



## Context information:

In this section, you will find crucial details about its population size, socio-economic indicators, prevalent health conditions, and common lifestyle habits of its residents.

### RELEVANT INFORMATION

Population

Prevalent diseases

Life habits

#### Prevalent diseases

According to the National Atlas of Mortality in Spain (ANDEES), in Santa Cruz de Tenerife there is a **high risk** of developing diabetes mellitus, followed by other endocrine, nutritional, and metabolic diseases. ISTAC's analysis indicates that, in 2021, approximately 10.6% of residents aged 16 and above in Tenerife had a diagnosis of diabetes, and the number was even higher (11.39%) in the island's urban areas.

Furthermore, the INE (2021) revealed that cardiovascular diseases, cancer and respiratory diseases were the main causes of death in recent years on the island.





# MAIN ENVIRONMENTAL HEALTH RISK FACTORS



## Main environmental health risk factors:



UV rays



Air quality

In this section, you will find relevant **static and dynamic information on the potential health risks associated respectively with UV rays and air quality.**

Core background knowledge is common to all municipalities; moreover, adapted information on UV rays and air quality in each of the municipalities has been added, reflecting the diversity, opportunities, gaps, and needs of the selected communities.

### ENVIRONMENTAL FACTORS

Relevant environmental risk factors that the municipality is exposed to are ultraviolet rays and polluting particles in the air. Moreover, other risk factors can be found in other abiotic factors such as the temperature.

UV rays

Air quality

Other environmental factors

#### Air Quality Index

**Air pollution is considered one of the most significant risk factors for human health.** To ensure air quality and prevent and reduce the harmful impact on human health, it is necessary to identify and measure the **main air pollutants**: inhalable particles of two varied sizes (PM10 and PM2.5), Ground-level ozone (O3), Nitrogen dioxide (NO2) and Sulphur dioxide (SO2).

Norway ranks 125/131 in the most polluted country and region ranking based on annual average PM2.5 concentration ( $\mu\text{g}/\text{m}^3$ ). Norway is therefore a country that enjoys good air quality and from little PM2.5 pollution. According to the [IQAir database](#), **the air pollution level in the municipality of Tromsø is relatively good**, the average air quality index is 24 USAQI, and the main detected pollutant is PM2.5.



## Other specific environmental health risk factors

This section provides **information and data on environmental factors specific to each municipality.**

For example, for Santa Cruz de Tenerife and Las Palmas de Gran Canaria you will find information about hot temperatures and bath water quality.

Tromsø web page provides details on extreme cold temperatures.

As for Braşov, you will find a dedicated information on noise pollution due to the high levels of traffic and industrial activity that may lead to significant noise pollution.

### ENVIRONMENTAL FACTORS

UV rays

Air quality

Other environmental factors

In this section, we present information about additional environmental factors such as air quality, beach water, water for consumption, and the temperatures of the cities we live in. This information is also relevant because of its impact on our well-being.

First, water quality is essential to prevent the spread of diseases through water and guarantee safe hydration for people. Exposure to polluted water can lead to some health problems from gastroenteritis to other complex diseases transmitted by vectors. Furthermore, in coastal areas knowing the beach water quality is crucial to protect swimmers from pollutants and microbiological danger.

Additionally, temperature directly influences our comfort and health since prolonged exposure to extreme temperatures can lead to heat stroke, hypothermia, or worsen existing medical conditions. Moreover, seasonal changes can affect our mental health and our immunological system. To sum up, having access to precise and updated information about these environmental factors allows people to make informed decisions to maintain and improve their health, avoiding unnecessary risks and promoting healthier habits.

#### Water for bathing

**In the municipality of Santa Cruz de Tenerife, there are five beaches and approximately five areas for bathing.**






According to the Spanish National Report of Water Quality from 2022, 97.4% of water for bathing in the Spanish territory surpassed the "sufficient" quality minimum and 88.2% surpassed the 'excellent' index. To evaluate water quality in bathing areas, there is regular analysis of the key indicators related to the presence of faecal pollution throughout the season. These indicators are E. coli and intestinal Enterococcus. The results of this analysis are used to determine the annual classification of each bathing area. All five beaches that belong to the municipality of Santa Cruz de Tenerife are classified by this report as "Excellent".

## Resources

Every section of environmental health risk factors features a sub-section on resources where the users can consult or download additional information available in the form of external URLs, videos, or downloadable PDFs.

Resources

-  Sun-Smart UV App – World Health Organisation
-  Sun Safety Recommendations – Association of European Cancer League
-  Recommendations on sun and UV exposure – American Cancer Society

Explora más recursos de apoyo



Recomendaciones por golpe de calor.

Copiar en...

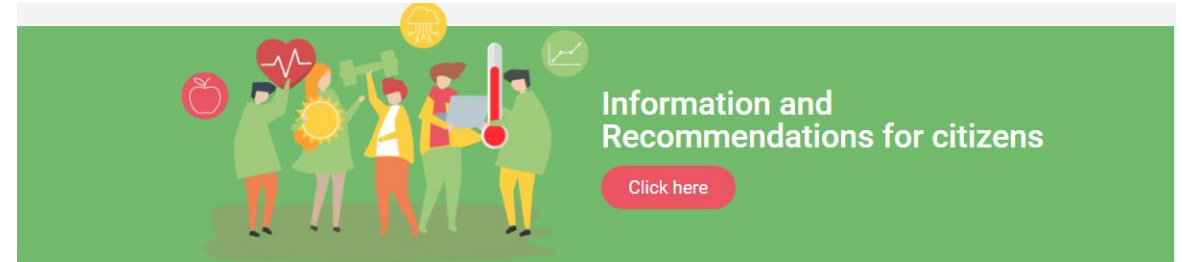
**RECOMENDACIONES  
FRENTE AL CALOR**

# SECTION DEDICATED TO CITIZENS



Additionally, for each environmental health risk factor of the four municipalities, there is a **separate section dedicated to the general public**, which provides:

- **practical recommendations** for maintaining health,
- **debunking common health myths**, and
- engaging with **interactive quizzes** designed to inform and educate the public on health-related matters associated to the tackled environmental health risk factors.



## Myths and recommendations Santa Cruz de Tenerife

RECOMMENDATIONS

### Recommendations

#### Hydration

Health and well-being depend heavily on being correctly hydrated since every cell in our bodies needs water.

**Hydration is essential to carry out the most basic functions in our organism** such as regulating blood pressure, maintaining an adequate body temperature, and facilitating digestion, this also means that it is considered a crucial factor in preventing non-communicable diseases.



# MUNICIPALITIES' PAGES: LANGUAGE



On the web page of each municipality, **the user can select their preferred language**, opting for either English or the national language associated to the municipality in question.

**WARIFA**

NORWAY ▾ ROMANIA ▾ SPAIN ▾ English ▾

Română (Romanian)

## Braşov

**UNEMPLOYMENT RATE:** 2.5%

**AVERAGE GROSS SALARY:** 6.818 LEI

**Population:**  
Braşov City: 284,691  
Braşov County: 639,825

**Main diseases**

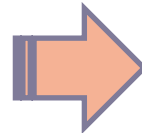
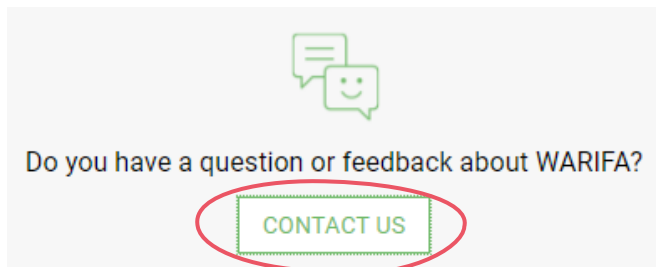
- Cardiovascular diseases:** leading cause of mortality in Romania
- Increase in deaths from respiratory diseases in Braşov County
- AIR POLLUTION CONTAMINANTS NO2
- MULTIANNUAL AVERAGE TEMPERATURE OF 8.8°C
- EXTENSIVE REHABILITATED WATER SUPPLY INFRASTRUCTURE



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# CONTACT FORM

On the WARIFA website you will also find the “**Contact**” section where you have the opportunity to contact us through a message. In addition, you will find the email of the Project Manager that you can directly contact.



## Contact

Home / Contact

If you are interested in receiving information about the WARIFA project, do not hesitate to contact us!

**PROJECT COORDINATOR**  
👤 Conceição Granja Bartnæs  
✉ Conceicao.Granja[@]ehealthresearch.no

Your name

Your email

Subject

Your message (optional)

**SUBMIT**



# THANK YOU!



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