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Improving the Quality of Mountain Facilities: A Novel Project in the Dolomites Area

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Abstract: In its broadest sense, the mountain environment represents a setting useful for promoting health. This Italian project, conceived and applied in the Dolomites, aims to encourage multi-sector preventive public health policies; improve refuge hygiene; strengthen safety requirements; and implement projects aimed at promoting health. With the support of healthcare workers (HCWs) of the Prevention Department and other professionals in this field, 27 establishments in the Alpine territory have joined the project, benefiting from being recognized as a "Healthy and Safe Refuge" at the end of the quality improvement process. This process consisted of a documentary assessment, an on-site evaluation, and an assessment of analytical evidence relating to parameters investigated by both HCWs and refuge managers according to specific protocols. Data were collected from a specific database via an application to join the project and from sampling reports of parameters investigated for evaluating the quality of water intended for human consumption. The outdoor Alpine environment has recently witnessed extraordinary development and must continue to meet all health and safety requirements, especially in view of a global event—the Olympic Games—that will be hosted in the Dolomites area in 2026.

Keywords: public health; disease prevention; alpine refuge; safety measures; quality improvement; health promotion

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1. Introduction

The province of Belluno ranks first in terms of surface area among the provinces of Veneto, with an area of 3678 km^2. The territory is made up of 60 municipalities (Figure 1) with a total of 197,767 inhabitants, of which 96,785 (48.9%) are men and 100,982 are women (51.1%). This number has been constantly decreasing over the years. From 2017 to 2024, the number of residents in the territory of the Local Health Authority "ULSS 1 Dolomiti" decreased by approximately 2% [1].

The provincial population density is 264.6 inhabitants/km^2, with higher values in the municipalities of Belluno and Feltre.

Figure 1. Map of the municipalities of the province of Belluno.

The territory is predominantly mountainous, consisting of rugged mountains crossed by deep, narrow valleys; the dominant environment is that of the Dolomites: sheer cliffs and peaks.

On 26 June 2009, the United Nations Educational, Scientific and Cultural Organization—UNESCO—proclaimed the Dolomites as a "World Heritage Site", a natural asset with unique characteristics from a landscape, geology, and geomorphology viewpoint [2].

The Dolomites comprise stratified sedimentary rocks, with a prevalence of the Dolomite type, including the major Dolomite groups such as the Schiara group, Mount Serva, the Monti del Sole, Mount Pizzocco, Col Visentin, Mount Grappa, Col Nudo, Nevegal, the peaks of the Tofane, the Tre Cime di Lavaredo, Mount Pelmo, Mount Civetta, Moiazza, Mount Antelao, Mount Cristallo, the Marmarole group, the Sorapis, the Cadini di Misurina, the Croda Rossa d'Ampezzo, the Sella della Marmolada, and the Pale di San Martino (these last three are on the border with the Trentino–Alto Adige Region) [3]. Table 1 shows the most notable mountains, divided by the geographical area of the province.

The territory features two protected parks: the Dolomiti Bellunesi National Park, which is characterized by an exceptional variety of environments, and the Dolomiti d'Ampezzo Natural Park, managed by the Comunanza delle Regole d'Ampezzo. Among the main natural beauties of this land are Lake Misurina; the Serrai di Sottoguda, a gorge in the municipality of Rocca Pietore; and the Somadida nature reserve, the largest forest in the

Cadore area. Furthermore, among the protected areas, the Natura 2000 Network also stands out, which includes sites of community interest and special protection areas.

Table 1. The most notable mountains in the province, divided by geographical area.

Geographical Area	Notable Mountains
Feltrino	Pavione, Vette, Sass de Mura, San Mauro, Tre Pietre, Pizzocco, Coppolo, Grappa, Tomatico
Bellunese	Monti del Sole, Schiara, Pelf, Talvena, Serva, Nevegal-Visentin, Cesen
Alpago	Dolada, Col Nudo, Teverone, Guslon, Cavallo, Millifret, Pizzoch
Longarone	Pelf, Cime di Città, Cime di Caida, Cima dell'Albero, Salta, Toc
Zoldo	Pelmo, Civetta, Moiazza, Pramper, Spiz de Mezzodì, Gardesana, Tamer—S. Sebastiano, Bosconero—Sfornioi
Agordino	Marmolada, Pelmo, Civetta, Moiazza, Tamer—S. Sebastiano, Pale San Lucano, Agner, Croda Granda, Pizzon, Focobon, Mulaz, Pore, Cernera
Livinallongo	Sella Piz Boè, Settsass, Sass de Stria, Col di Lana
Ampezzo	Tofane, Fanes, Sorapiss, Becco di Mezzodi, Croda da Lago, Croda Rossa d'Ampezzo, Cristallo, Pomagagnon
Valle del Boite	Pelmo, Sorapiss, Antelao, Croda Marcora
Centro Cadore	Tre Cime di Lavaredo, Cadini di Misurina, Tudaio, Cridula, Duranno, Marmarole, Sassolungo di Cibiana, Rite
Comelico	Ajarnola, Popera, Cima Undici, Cavallino, Palombino, Longerin, Brentoni, Terze

The mountain territory offers visitors enjoyable walks and excursions in every period of the year, and located along these paths of interest are the establishments involved in disease prevention and health promotion initiatives. Mountains can therefore bring an inherent benefit to health, as they can be thought of as a large outdoor gym. This exclusive background, which is located in an environment already favorable for health in analogy with a One Health perspective, facilitates the identification of shared institutional paths, aimed at creating circumstances that positively impact preventive actions and healthy behaviors, including correct nutrition; disincentive to smoke, even outdoors; prevention of accidental trauma; reduction in environmental risks; attention to the prevention of malignant melanoma; and control of blood pressure at high altitude [4]. The One Health holistic vision represents an ideal approach to achieving global health, addressing the needs of the most vulnerable populations based on the relationship between their health, the health of animals, and the living environment, considering the broad spectrum of determinants that emerge from this relationship. Therefore, it is based on the recognition that human health, animal health, and ecosystem health are inextricably linked.

The "Healthy and Safe Refuge" project, recently promoted by the Department of Prevention of the Local Health Authority ULSS 1 Dolomiti, has been applied in this setting. It aims to improve the overall quality of hygienic requirements, safety, and refuges' ability to promote health.

2. Materials and Methods

In view of the Olympic Games that will be held in the Dolomites in 2026 and the consequent increase in tourist activity in the mountains, the "Healthy and Safe Refuges" project was created. With the Resolution of the Commissioner of the Local Health Authority ULSS 1 Dolomiti n. 1043 on 3 October 2023, the first protocol agreement was signed with the Association of Alpine Refuge Managers of Veneto Region (AGRAV), which provides the starting point for a voluntary improvement process in Alpine refuges belonging to

this association. This process aims to guarantee a healthy and safe context in terms of the following:

i. Improvement of hygienic–sanitary suitability;
ii. Enhancing health safety in collaboration with the Emergency Medical Service—SUEM 118;
iii. Orientation towards health promotion.

The managers of 108 shelters, located in the province of Belluno, were preliminarily contacted and provided with information on the initiative, through both AGRAV and the Italian Alpine Club—CAI, with which they are associated. After some meetings, both in person and via conference call, dedicated to presenting and describing the aims of the project to the owners or managers of the refuges, an internal team from the specifically established Prevention Department has supported the interested refuges in the process of joining the project since October 2023.

To be defined as "healthy and safe", the shelter must fulfill the following already mandated basic technical and hygienic–sanitary prerequisites [5]:

1. They must adhere to requirements regarding food safety, defined by the Hygiene Package [6];
2. They must have trained and appointed first aid and fire-fighting personnel [7];
3. They must have rooms reserved for the accommodation of the manager or caretaker;
4. They must have a kitchen with suitable equipment for preparing meals, usable exclusively by the guests, and spaces equipped for the consumption of food and drinks;
5. They must have spaces for overnight stays equipped with beds or bunk beds, even overlapping ones;
6. They must have the necessary sanitary facilities proportionate to the accommodation capacity, with a minimum of one group for each of the habitable floors;
7. They must have an independent wastewater cleaning and disposal system;
8. They must have a telephone or, if connection is not possible, a radiotelephone or similar equipment;
9. They must have an adequate number of fire extinguishers of the approved type that are periodically checked and conveniently distributed in various rooms, and a fully equipped and constantly updated first aid and medication kit, as well as a rescue stretcher and, if open in winter, avalanche shovels and probes;
10. They must have an external lamp, which must always be on, from sunset to dawn, during the opening period;
11. They must have adequate space for storing mountain rescue materials and tools;
12. They must have a landing area nearby suitable for Alpine rescue helicopters, where technically feasible.

In addition to the requirements already mandated, the refuge manager must confirm that at least five of the following eight optional requirements are met:

1. Possession of a semi-automatic external defibrillator (AED) with accessories, subjected to correct maintenance (taken care of by the Emergency Medical Service—SUEM 118 control center);
2. Training of employees for the execution of first aid maneuvers or for the use of the semi-automatic external defibrillator (AED) (BLSD training course);
3. Availability of a sphygmomanometer for measuring blood pressure;
4. Preparation of detailed menus, with indication of food substances that can cause allergic reactions or intolerances [8];
5. Guarantee of the availability of gluten-free meals;

6. A suitable water supply with a relative procedure for evaluating, monitoring, and controlling water quality;
7. A procedure that includes flushing rooms that have not been occupied for at least five days (to avoid legionellosis) with running water for at least two minutes [9,10];
8. Availability of sun creams with a high protection factor, hats with a visor, or bandanas, available in a clearly visible area, which can be purchased upon request by users (melanoma prevention).

If the refuge does not have an AED, it is possible to request one on loan for use from the Local Health Authority, as well as to request specific training for implementing first aid maneuvers or for the use of the AED (BLSD training course) [11].

Furthermore, each application for joining the project must be accompanied by the most recent analytical test report relating to water intended for human consumption, which should be taken no more than 6 months previous from a representative water point at the facility (e.g., a kitchen sink). In compliance with the European legislation in force for the sector, the analytical report must be issued by an accredited laboratory for the following analyses: biological analyses (count of viable microorganisms at 22 °C, coliform bacteria at 37 °C, *Escherichia coli*, and intestinal enterococci) and chemical analyses (organoleptic characteristics, pH, electrical conductivity at 20 °C, ammonium content, nitrite content, and total active chlorine) [12,13]. A preliminary specific risk assessment was carried out with the health personnel of the Food Hygiene and Nutrition Service of our local health authority, taking into account the trend of analytical non-compliance, detected over time. By cross-referencing the frequently relevant non-compliant parameters with those currently regulated by the new sector legislation, it was decided to proceed with the investigation of the parameters indicated above, considered more representative of the investigation context. To support the water quality monitoring phases, a partnership was created with an accredited laboratory, which guaranteed the processing of samples at a controlled price, the cost of which related to the analyses was directly supported by the managers of the refuges.

The samples of water intended for human consumption were analyzed at Lifeanalytics S.R.L., Oderzo, Italy, endowed with accreditation issued by Accredia with n. 0128 L as a testing laboratory that meets the requirements of the standard ISO/IEC 17025:2017 and whose tests are accredited, also for the investigated matrix, using the following standard methods: Color, APAT CNR IRSA 2020 A Man 29 2003; Smell, APAT CNR IRSA 2050 Man 29 2003; Flavor, APAT CNR IRSA 2080 Man 29 2003; Chlorates (ClO_3), MI A 0012 rev. 00 (2020); Chlorites (ClO_2), MI A 0012 rev. 00 (2020); Nitrites (NO_2), APAT CNR IRSA 4020 Man 29 2003; Ammonium content (NH_4), APAT CNR IRSA 4030 A2 Man 29 2003; Count of viable microorganisms at 22 °C UNI EN ISO 6222:2001; Escherichia coli, UNI EN ISO 9308-1:2017; Intestinal enterococci, UNI EN ISO 7899-2:2003; Coliform bacteria at 37 °C, UNI EN ISO 9308-1:2017; Electrical conductivity at 20 °C, APAT CNR IRSA 2030 Man 29 2003; and pH APAT CNR IRSA 2060 Man 29 2003.

Figure 2 summarizes the process for issuing the recognition of the "Healthy and Safe Refuge".

The assessment application team comprises the following:

i. The director of the Prevention Department;
ii. The manager of health professionals in the prevention area;
iii. An administrative collaborator coordinator;
iv. An external expert working in a health profession;
v. A healthcare worker in charge of innovation and development projects;
vi. Any representative of the association the refuge is affiliated with.

The multidisciplinary team, which also includes a statistician, is useful because each member provides contributions of their own experience and background to the evaluation [14,15].

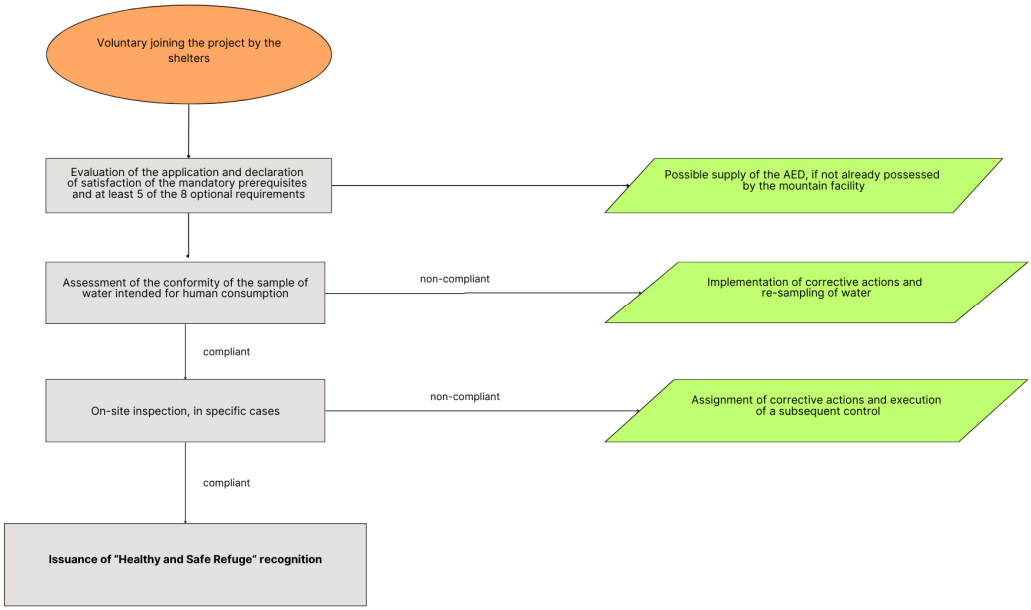

Figure 2. Process for issuing the recognition of the "Healthy and Safe Refuge".

An exhaustive sampling technique was performed since data selected by every single application are included for analysis. The statistical analysis was carried out by applying the descriptive measures starting from digitalized data using Microsoft® Excel.

All requests are evaluated considering the provisions of the internal Operating Instruction on the "Evaluation of requests for the release of a quality certification for Alpine refuges" (rev. 0 of 20 November 2023 and rev. 1 of 27 May 2024), and, in specific cases, an inspection is performed, aimed at verifying whether the specific requirements have been met. Furthermore, the quality of the water supply is evaluated and monitored in accordance with the provisions of the internal operating instruction named "Evaluation of the potability requirements of water within the scope of the Healthy and Safe Refuges project" (Rev. 0 of 7 March 2024). The contents of the latter were approved by the University of Udine, thanks to an inter-institutional and inter-regional partnership with the project.

In the event of a non-compliant or non-remediable application, it is declared as inadmissible. By joining the project, the managers of the refuges consented to the processing of their data, which was used in aggregate form for statistical and study purposes only.

3. Results

Between April and July 2024, 27 refuges joined the project, equal to 25% of the eligible facilities. After examining the 27 applications received and verifying their completeness, all were found to be admissible.

The subdivision of the participating facilities by district areas of the Local Health Authority ULSS 1 Dolomiti is shown in Table 2, while the refuges' affiliations are indicated in Table 3.

Table 2. Participating structures by district area.

District	N	%
Agordino	7	26
Cadore	10	37
Bellunese	8	30
Feltrino	2	7

Table 3. Affiliation and managers of the establishments joining the project.

Refuge Manager	N	%
Italian Alpine Club	13	48
Public institution	7	26
Privately owned	7	26

In addition to the mandatory prerequisites, fully met by all 27 facilities, the following results were found regarding the "improvement of hygienic–sanitary suitability" requirement. Table 4 reports the type of water supply to the facilities, from which it is revealed that only 26% of the facilities are supplied by the public water supply and that all of the shelters correctly document the management of drinking water resources through the HACCP system's own checks.

Table 4. Water supply type of participating facilities.

Type of Water Supply	N	HACCP Checks (%)
Public	7	100
Spring	18	100
Rainwater	1	100
Snowfield	1	100

Regarding water flushing of rooms that have been unoccupied for a long time, 21 facilities (equal to 78%) declared that they apply the procedure for the prevention of legionellosis. For the remaining facilities, recommendations were provided to allow for full compliance. Furthermore, 93% of the facilities (25 out of 27) have arranged menus for customers with the correct indication of the food substances that can cause allergic reactions or intolerances. Compliance in this case was also requested and subsequently verified. Furthermore, 78% of refuges guarantee the availability of naturally gluten-free meals or specifically formulated preparations for visitors affected by celiac disease.

Regarding the requirement relating to "enhancing health safety", it emerged that at the time of submitting the application, 34 operators in 23 shelters had been trained in first aid and/or in the use of external semi-automatic defibrillators (BLSD training course). The four facilities in which the staff were not trained declared that they had expressed the need for training on the first available course to the Emergency Medical Service—SUEM 118 control center. In detail, 52% of the facilities have an AED equipped with accessories which is subject to appropriate maintenance, and for the remaining 48%, the Local Health Authority provided an AED on loan for use, following a request.

With reference to the requirements aimed at "orientation towards health promotion", the data that emerged show that 78% of refuges have access to a sphygmomanometer for measuring blood pressure, and 67% guarantee the availability of high-protection-factor sun creams, hats with visors, or bandanas, located in a clearly visible area, which can be purchased upon request by users.

4. Discussion

Following the COVID-19 pandemic, the outdoor Alpine environment witnessed extraordinary development, with widespread frequentation of the mountains both by residents of the province of Belluno and by tourists who entered the provincial territory even outside of the classic tourist season [16,17]. This positive phenomenon has been further stimulated by the increase in average temperature in recent years, which was particularly challenging in the summer season.

In the Alpine area, there are different types of establishments that are present in the mountain environment with different characteristics and functions. The most common establishments are the mountain hut (a set of land, pastures, animals, and buildings for producing milk and cheese), the baita (a building similar to the hut but generally private), the bivouac (a wooden or sheet metal structure useful for emergency shelter), and Alpine or hiking refuges (high-altitude accommodation where it is possible to eat and drink or spend the night). As a rule, the refuges are located at an altitude of no less than 600 m above sea level or along hiking routes that can be reached on foot via paths, mule tracks, roads, or ski lifts.

Due to the protocol, only refuges affiliated with AGRAV initially joined this project; subsequently, with the extension of the project to all associations and bodies of the territory, particularly the CAI, the project was able to benefit from the joining of other establishments. Despite the initial skepticism, given the novelty and innovation of the topic, this project has awarded recognition plaques (Figure 3) in two dedicated ceremonies to 27 refuges, which often result in their derogation from certain requirements with respect to sector regulations. On the plaque, there is also a QR code that is linked to the website of the Local Health Authority ULSS 1 Dolomiti, where an updated list of recognized refuges is available.

Figure 3. Recognition plate of the "Healthy and Safe Refuge".

In addition to the plaque, the refuge managers received a starter kit that includes a bag with the project logo and products for sun protection (a headband, sun cream, and a pair of sunglasses) donated by local companies with an established partnership (Figure 4).

The refuges at high altitude, often seasonal, are not supplied with water from the public aqueduct in most cases and, given their location, the supply of raw materials and ingredients is also complicated (transport via cableway or dedicated vehicles). Our study shows that, in addition to all of the basic technical and hygienic–sanitary prerequisites considered mandatory for membership, the joining refuges have benefited from a specifically supported path, guaranteeing improvement of the quality of the refuges. Even the on-site visits carried out by the healthcare workers were conducted from a preventive and collaborative perspective, not purely from an inspection perspective, inspired by the principles of flexibility and providing advice to improve minor non-conformities. The main non-conformity, related to the water supply requirement and emerging from the mandatory

analytical sample required for joining the project, was the detection of 3 UFC/100 mL of coliform bacteria in a sample of water intended for human consumption collected from a refuge (detected at the accredited analytical laboratory). The regional guidelines for the surveillance and control of water intended for human consumption in the Veneto Region, which refer to guidelines from the Italian Ministry of Health on the specific topic [18,19] of analytical value interpretation, are as follows: "coliform bacteria at 37 °C—it is believed that in cases where the values are lower than 10 UFC in 100 mL and no other suspicious elements of possible contamination are found, the water is suitable for human consumption". Since all of the other indicators of fecal contamination (*Escherichia coli* and intestinal enterococci) determined in the analysis were negative (compliant), the overall analytical result was considered compliant, and the facility was required to immediately clean and sanitize the storage tank and provide a subsequent sample for bacteriological parameter analysis, which was then found to be compliant. The preventive action inherent to the project, which involves taking a water sample at the beginning of the season, has allowed for the detection of non-conformities to stop potential larger problems manifesting (e.g., food-borne disease), with a view to having safer refuges. In this regard, further pilot schemes have been tested in this setting in bordering territories [20,21]. Moreover, regarding the aspects of fighting and contrasting legionellosis, for which it was found that 22% of structures do not declare that they adopt appropriate preventive actions, the maintenance of the requirements in the following years for these specific structures will have to foresee a strengthening of such preventive measures, with the specific support of the stakeholder to which the shelters are affiliated.

Figure 4. Starter kit intended for the refuge managers.

This project is currently implemented with the iso-resource modality, with the collaboration of the main stakeholders, AGRAV and CAI, which support and promote the adhesion of the refuges associated. Furthermore, in order to maintain the requirements over time, the Operating Instruction on the "Evaluation of requests for the release of a quality certification for Alpine refuges" is being implemented, which will have to provide for the annual execution of the sample of water intended for human consumption, in addition to the declaration of the existence of the previously owned requirements. In any case, the

statement does not exempt the refuge managers from performing the on-site inspection in the following year.

Mountaineering requires caution, correct clothing, physical preparation, preparation of the necessary materials, respect for the environment, and good physical health to prevent accidents [22]. For those who frequent the mountains, it is good practice to pay attention to weather reports and to have a hiking map of the destination. It is also advisable to leave in the morning, stick to the paths, correctly prepare a backpack, not venture out alone, and pay attention when descending the mountain.

The Prevention Department of the Local Health Authority ULSS 1 Dolomiti, in collaboration with the University of Padua, conducted a survey in June 2022 to investigate local citizens' habits in terms of sun exposure and protection in mountain settings, interviewing 229 people between the ages of 18 and 50 via telephone who were randomly selected from patient records [23,24]. This study showed that fewer than two in five people use sun cream when going to the mountains to hike and that only one in three people use a hat or bandana when carrying out outdoor activities; furthermore, 76% use sunglasses in outdoor environments. Hence, there is a need to work together with the main partners in the area to promote the availability of (i) high-protection-factor sun creams to be sold in participating refuges; (ii) bandanas, hats, and technical t-shirts with UV filters; and (iii) sunglasses with polarized lenses, in compliance with the requirement of "orientation towards prevention and health promotion". Thanks to the partnerships created with this project, the refuge managers can purchase sunscreens, clothing and accessories, and sunglasses at controlled prices.

Everyone can frequent the mountains, but those who suffer from pathologies, including hypertension, diabetes, hypercholesterolemia, kidney failure, heart and brain problems, and sleep apnea, must take some extra precautions [25,26]. To protect the health of the cardiovascular system, it is necessary to monitor blood pressure at high altitudes since it begins to change even at moderate altitudes of around 1800 m and significantly changes above 2500 m. In light of this, the Prevention Department of the Local Health Authority ULSS 1 Dolomiti took part in a prevention and awareness campaign promoted by the Italian Society of Arterial Hypertension (SIIA), the CAI, and the Italian Society of Mountain Medicine with the support of the Istituto Auxologico Italiano and the University of Milan-Bicocca. This campaign is currently ongoing, with the aim of promoting awareness of cardiovascular system reactions at high altitudes in people who practice mountain activities. This initiative is part of many actions for the promotion and protection of health in the Alpine region, accompanying the great success of the promotion of mountains as a place of well-being. A series of refuges in the Belluno mountain area are involved, including some members of the "Healthy and Safe Refuge" project. Outside each refuge, a multi-professional team of healthcare workers from the Prevention Department can set up a station to measure blood pressure (three times, 1 min apart), heart rate, and oxygen saturation in the blood for hikers or walkers who have reached the refuge on foot or other means (e.g., ski lift, bicycle, or car). In addition, a short questionnaire is anonymously administered to collect health data regarding blood pressure behavior in the mountains and to provide advice and recommendations to those who undergo testing (Figure 5).

Finally, considering that the harmful effects of ultraviolet rays are greater at high altitudes, a health promotion campaign named "Montagna Sì, Melanoma No" (Mountain Yes, Melanoma No) was promoted in the refuges. This included information and awareness-raising actions for melanoma prevention, with flyers and samples of sunscreen with a protection factor of 50 distributed to hikers or walkers. Each refuge was also provided with paper placemats with drawings created by children from local schools involved in this project.

Figure 5. Experimental project for monitoring cardiovascular health at altitude.

To the best of our knowledge, this is the first Italian project, conceived and applied in the Dolomites area, that aims to promote multi-sector public health policies and to encourage an increase in hygiene and health requirements, in a particular set of Alpine buildings. Due to their location, intrinsic characteristics, and authorization exemptions, these buildings sometimes require technical health support. This support has been promoted by specialists in the sector to guarantee an adequate level of protection, encourage hiking, and improve perceptions of refuges as healthy and safe. Furthermore, future developments in this setting, pilot projects of which have already been initiated at a local level, include the application of telemedicine to improve the timeliness of emergency health services [27,28]. However, this study has the following limitations: participation in the project is voluntary, which means that more structured refuges or those managed by refuge managers who are more likely to take part in innovative development programs can join more easily; this may have represented a selection bias. Moreover, since this is a newly created and implemented project, it is not currently possible to compare the results of our studies with other mountain territories until a plausible extension of the same project to a larger territory occurs. Furthermore, the initial doubts linked to voluntary participation may have triggered an increase in controls that, although preventive, may have reduced demand. Furthermore, since the project has just been launched, specific requirements will have to be provided in order for refuges to maintain their status as a "Healthy and Safe Refuge" in the coming years so that they can continue to benefit from the qualification and consequential plaque. These requirements should also focus on aspects of sustainability and environmental protection, considering the recent legislation that enabled the development of the Regional Network of Safe and Healthy Refuges [29].

5. Conclusions

The mountain context represents an excellent intrinsic One Health setting, which favors the promotion of active lifestyles with consequent health gains, even in the aging population [30,31]. Targeted territorial public health policies, applied in a careful manner, must promote and protect the local environment, with a view to improving collaboration

with professionals operating in the field. In the preventive public health field, it is known that outcomes in terms of health gained or diseases prevented cannot be measured immediately and can only be estimated. The outcomes resulting from this project have enabled the establishment of useful alliances between the Prevention Department of the Local Health Authority ULSS 1 Dolomiti—which is institutionally responsible for preventing ill health and promoting the health of individuals—and the managers of the refuges, creating a bond that allows all subjects involved to operate in synergy by promoting improvements in the hygienic–sanitary suitability and safety of the infrastructure via a single innovative path. This promotes health, and it is hoped that the project can be extended to the Dolomites area within neighboring territories, in addition to refuges not yet adhering at a local level. The recent approval of the development of the Regional Network of Safe and Healthy Refuges [29] may encourage adherence to this project, also for other buildings located in the entire regional territory, contributing to the quality improvement process of such facilities and obtaining greater information, consolidating the data collected in this first provincial step, and, consequently, making them generalizable to the reality of mountain facilities.

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