ERASMUS+
COOPERATION PARTNERSHIPS
IN SPORT

"FIT-BALKANS"

Project n° 101049997_Fit-Balkans

DATA COLLECTION
TECHNICAL REPORT

Introduction

The Fit-Balkans initiative aligns with European guidelines for promoting physical activity, specifically following the principles of HEPA. Envisioned to impact the lives of young women across five Balkan countries, this project seeks to instigate a transformative shift in lifestyle. With a focus on enhancing the subjective well-being of women aged 18 to 30 in the Balkans through the promotion of physical activity, Fit-Balkans operates in five case cities: Athens, Greece; Plovdiv, Bulgaria; Bucharest, Romania; Nis, Serbia; and Shtip, North Macedonia. The project's primary goal is to cultivate active living among young women in the region. Fit-Balkans encompasses three key objectives: firstly, to catalyse lifestyle changes within the target demographic; secondly, to disseminate awareness about the benefits of adopting an active lifestyle; and thirdly, to furnish accessible resources related to intervention methods for policymakers. Achieving these objectives involves a multifaceted approach, combining research and awareness-raising activities. The research component involves two surveys, examining personal and socio-economic factors, physical activity levels, and well-being among participants before and after a six-month activation period. Activation, in the form of increased walking and biking in daily life, reduced screen time, decreased sedentary behavior, and the adoption of a healthy nutrition style, will engage participants actively, while the remainder will be passive observers. Fit-Balkans thus aspires to be a catalyst for positive change, contributing not only to the individual well-being of its participants but also offering valuable insights for policymakers in the pursuit of healthier, more active communities across the Balkans. This report is focused on the first data collection before the intervention.

Participants' profile and selection criteria

The participants in this data collection represent a specific demographic profile defined by the following criteria. The target group comprises young women aged 18 to 30 years residing in the Balkan states, including Athens, Greece; Plovdiv, Bulgaria; Bucharest, Romania; Nis, Serbia; and Shtip, North Macedonia. In total, 1,084 participants actively took part in the initial data collection preceding the Fit-Balkans Campaign. Participants self-identified their lifestyle as unhealthy, sedentary, or inactive and expressed a genuine interest in transitioning to a healthier and more active way of life. Familiarity with the project's objectives, interventions, and the data collection process is a prerequisite, and participation are facilitated through online registration following the campaign announcement on partners' social media platforms. Before participating, individuals were briefed through small group online or hybrid meetings. Furthermore, participants should not have any underlying health conditions that could hinder their ability to engage in physical activity. The culmination of this process aimed at ensuring diversity in socio-economic status, education level, and cultural background to enhance the representativeness of the project results within the target population. The inclusion criteria for the Fit-Balkans campaign required participants to be women aged 18-30 with a controlled/stable health situation, able to understand and carry out instructions regarding the questionnaire, and capable of walking and being active without support. Exclusion criteria encompassed not having a stable/controlled health situation, involvement in intervention programs, psychological/mental states hindering understanding and participation, visual and/or auditory limitations, failure to meet inclusion criteria, and refusal to participate.

The distribution of participants across the case cities within the Fit-Balkans initiative is designed to ensure representation and impact across the diverse Balkan landscape In Bucharest, 597 women actively participate, highlighting the project's response within the Romanian context. Nis and Athens follow closely with 205 and 136 participants respectively. Plovdiv, Bulgaria, demonstrates with 94 participants, Shtip, North Macedonia, adds a valuable dimension with 191 participants actively contributing to the project.

Data collection method and time

The data collection method employed in the Fit-Balkans initiative involves two surveys, the first of which is designed to investigate the physical activity status of participants and the influencing factors. Comprising five main sections—neighbourhood perception and mobility behaviour, physical activity, nutrition, well-being, and socioeconomic aspects—this comprehensive questionnaire provides a holistic understanding of the participants' lifestyles. The completion of this survey is estimated to take approximately 20 minutes of participants' time. The meticulous inclusion of diverse aspects in the questionnaire ensures a thorough exploration of the factors contributing to the participants' physical activity patterns and overall well-being. The questionnaire was designed in English and then, it was translated to partners' local languages.

The main general information about designing questionnaire and different parts of it

The Fit-Balkans questionnaire design incorporates a variety of variables to capture the diverse facets of participants' lifestyles and well-being. Different types of variables, including continuous, categorical, and binary, were strategically employed to gather comprehensive data.

For the assessment of neighbourhood and mobility attributes, categorical variables are utilised, asking participants to circle their responses to questions about the walking and cycling network, neighbourhood pleasantness, walking and cycling infrastructure, and neighbourhood safety. These categorical variables help categorise participants' perceptions and experiences within predefined options.

The International Physical Activity Questionnaire (IPAQ) employs continuous variables to quantify the time participants spent engaging in various physical activities over the past 7 days. This allows for a nuanced understanding of the duration and intensity of participants' physical activity, providing continuous data points for analysis.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) incorporates categorical variables as participants are asked to tick boxes that best describe their experiences of feelings and thoughts over the past two weeks. These categorical responses help categorise participants' mental well-being within predefined options.

This combination of continuous, categorical, and binary variables enhances the questionnaire's versatility, enabling a thorough exploration of participants' experiences and contributing to a more nuanced analysis of the data collected in the Fit-Balkans initiative.

Neighbourhood variables

The Fit-Balkans project aims to identify the complex relationship between neighbourhood characteristics. Fit-Balkans is a broad and ambitious project that seeks to unravel the complex relationship between neighbourhood characteristics and the physical activity and overall health of young women in the varied Balkan region. This comprehensive research provides an in-depth examination of participants' perspectives and experiences within their local environments by delving into the meticulous collection and analysis of neighbourhood characteristics. Four important elements are covered by our focus: neighbourhood safety, walking and cycling network, neighbourhood pleasantness, and the network of walking and bicycling places.

Starting with the walking and cycling network, a carefully selected set of nine variables—each with a rating ranging from strongly disagree to strongly agree—is intended to evaluate the convenience and accessibility of paths in the neighbourhoods of the participants. These variables not only delve into the physical infrastructure, including walkable sidewalks, cycling lanes, and road junctions but also extend to the essential presence of local amenities like shops and entertainment establishments. The existence of walking shortcuts, the efficiency of cycling over driving, the number of road junctions, the variety of walking and cycling routes, the availability of stores for daily necessities, the presence of entertainment venues, the accessibility of shops, and the presence of a diverse land-use mix in the area are all questions that participants are asked to share their opinions on.

This detailed analysis aims to clarify the specifics of neighbourhood structure and how it affects participants' habits of physical activity. It is presented through subtle response scales and categorical details. The primary objective of this study is to identify the various ways that the neighbourhood environment affects participants' decisions about active transportation. This analysis uses a wide range of variables in an effort to give a comprehensive picture of how the neighbourhood influences lifestyle choices in general as well as transportation choices in particular. A thorough and complete insight of the dynamic relationship between infrastructure, services, and the lived experiences of young women navigating their neighbourhoods in the Balkans is provided by each variable, which acts as a window into the perspectives of the participants.

Transitioning into the assessment of neighbourhood pleasantness, a meticulously crafted set of five categorical variables delves into participants' subjective perceptions of their neighbourhood's suitability for walking and cycling. These variables scrutinise various aspects, including the presence of litter, the abundance of greenery, and the maintenance of buildings. By employing a categorical lens, this analysis facilitates an in-depth evaluation of how residents perceive the overall pleasantness of their neighbourhood and, crucially, how these perceptions influence their choices regarding physical activity. The aim here is to unravel the intricate interplay between aesthetic considerations and physical activity, providing valuable insights for interventions geared towards enhancing the appeal of neighbourhoods for active living.

Proceeding on to the neighbourhood pleasantness assessment, a carefully designed set of five categorical variables aims to analyse participants' individual perceptions of the neighbourhood's suitability for cycling and walking. Participants are asked to score how pleasant it is to walk in their neighbourhood on a scale ranging from strongly disagree to strongly agree. They also rate the level of pleasure for cycling on a scale. The investigation also covers other significant aspects of the daily activities of the

locals, such as the condition of the buildings in the neighbourhood, the amount of trees or other greenery alongside the streets, and the presence of litter in the streets.

These categorical variables provide a comprehensive understanding of participants' subjective assessments, capturing not only individual preferences but also the collective aesthetic considerations that shape their neighborhood experiences. The assessment of pleasantness for walking and cycling, combined with evaluations of the presence of litter, greenery, and building conditions, forms a detailed picture of residents' perceptions of their local environment.

Crucially, this analysis seeks to unravel the intricate interplay between aesthetic considerations and physical activity. Understanding how residents' perceptions of neighbourhood pleasantness influence their choices regarding physical activity is pivotal. The aim here is to provide valuable insights for interventions geared towards enhancing the appeal of neighbourhoods for active living. By exploring these variables and their respective categories, the analysis sheds light on the factors that contribute to residents' perceptions of their local environment, contributing valuable knowledge that can inform initiatives aimed at creating neighbourhoods that are not only aesthetically pleasing but also conducive to a more active and healthier lifestyle.

The examination of walking and cycling infrastructure involves the consideration of five categorical variables, each rated from strongly disagree to strongly agree. These variables meticulously explore the availability of essential infrastructure elements within the neighbourhood, providing a detailed examination of factors that contribute to the neighbourhood's capacity for promoting active transportation. Participants express their views on the presence of walkable sidewalks, pedestrian zones or trails, special lanes or paths for cycling, separated cycle routes, and the availability of safe areas to park bikes in their area.

Through the lens of these categorical variables, the analysis aims to offer an evaluation of how neighborhood infrastructure influences residents' engagement in active transportation. This exploration examines the various elements that constitute an environment conducive to physical activity. By assessing residents' perceptions of the presence and quality of walking and cycling infrastructure, the objective is to unravel the complex web of factors that contribute to the creation of an environment supportive of active living. By understanding residents' perspectives on the neighborhood's infrastructure, particularly in terms of walking and cycling amenities, urban planners and policymakers can make informed decisions to enhance the built environment, fostering a community that encourages and facilitates active living.

In the evaluation of neighborhood safety, a set of six variables has been incorporated, incorporating both binary and Likert scale responses. These variables aim to assess participants' perceptions of safety, covering topics ranging from bike theft to street-crossing safety and overall crime levels during both day and night. The binary and Likert scale nature of these variables facilitates a thorough understanding of how safety perceptions impact residents' choices regarding physical activity. This section aims to uncover the intricate dynamics between perceived safety and physical activity engagement, offering crucial insights for interventions seeking to create safer neighborhoods that encourage active living.

This comprehensive and meticulous analysis of neighborhood variables, with its focus on categorical, binary, and Likert scale responses, ensures a rich understanding of participants' perspectives on their local environments. This holistic approach not only ensures the reliability of the data but also sets the

stage for robust analyses that significantly contribute to the overarching goals of the Fit-Balkans initiative. Each variable category serves as a lens into the multifaceted influences that shape the nexus between neighborhood attributes and the physical activity and well-being of young women in the Balkans.

As we navigate through the extensive dataset derived from the Fit-Balkans questionnaire, it is imperative to appreciate the intricate details that unfold. The walking and cycling network unfold as a dynamic tapestry, revealing insights into the accessibility and convenience of paths, the vibrancy of local amenities, and the potential impact on active transportation choices. Transitioning to considerations of neighborhood pleasantness, we delve into the aesthetic dimensions, exploring perceptions of litter, greenery, and building maintenance. This exploration not only captures the visual appeal of neighborhoods but also seeks to understand how these elements influence residents' decisions to engage in physical activity.

The analysis then turns its gaze to the underlying infrastructure, scrutinizing walkable sidewalks, pedestrian zones, cycling lanes, separated cycle routes, and secure bike parking areas. These elements, assessed through a categorical lens, offer an understanding of how the built environment shapes residents' behaviors, either facilitating or hindering their engagement in active transportation. Such insights lay the groundwork for urban interventions that prioritize the creation of environments that naturally encourage physical activity.

In parallel, the evaluation of neighborhood safety emerges as a critical aspect of this analysis. Binary and Likert scale variables shed light on perceptions of safety, encompassing concerns related to bike theft, street-crossing safety, and overall crime levels. Understanding how safety considerations influence residents' decisions regarding physical activity provides a vital perspective for crafting interventions that not only encourage active living but also ensure the well-being and security of community members.

In this thorough examination of neighbourhood variables, derived from the extensive Fit-Balkans questionnaire, the initiative's commitment to a holistic understanding is evident. As one immerses themselves in the rich tapestry of responses, not merely encountering data points but narratives, the intricate dynamics unfold. These narratives reveal how neighbourhoods emerge as crucial influencers in the endeavour for healthier, more active lifestyles among young women in the Balkans. This nuanced and detailed approach, setting the stage for transformative insights, guides interventions and policies that align with the diverse and evolving needs of the communities involved.

Street network structure

In addition to participants' perceptions of the neighborhood structure, the forms of neighborhoods and street network configuration were considered by computing street network variables. Street network variables, including street-length density, link density, intersection density, and link-node ratio, were calculated using ArcMap 10.4.

According to urban transportation literature, there is a strong relationship between active mobility (walking and biking) and street network configuration. The correlations between different street-network variables and active mobility may differ across contexts and groups. There are enough studies regarding the associations between active mobility and street network forms among Western European countries. However, there is a gap in the literature regarding the relationship between the physical activity of women and street network configuration in the Balkans region. To address this knowledge

gap, two questions were designed in the questionnaire to collect the nearest intersection or landmark to the homes and workplaces of participants in the survey.

The nearest intersection or landmark was considered instead of the exact location of homes and workplaces to respect the privacy of participants and to avoid collecting sensitive data. Partners pinned the nearest intersection or landmark to the homes and workplaces of participants on Google Maps. Then, partners sent the KML/KMZ format of pinned points, with each home or workplace assigned a unique ID number for each participant, similar to the ID number in the questionnaire.

Next, street shapefiles of partner cities were downloaded from OpenStreetMap. KML or KMZ files were converted to shapefiles using ArcMap 10.4. As mentioned above, length-street density, link density, intersection density, and link-node ratio were computed for homes and workplaces separately. To ensure higher quality data, disaggregated data was selected over aggregated data. Disaggregated data refers to the separation of compiled information into small units to elucidate underlying trends and patterns. For understanding the pattern of the relationship between street forms and active mobility, street form was quantified for each participant regarding home and workplace.

A 600-meter catchment area was generated based on the street network around homes and workplaces using Service Area Network Analysis in GIS. Then, all street network variables were computed in catchment areas. All mentioned variables are continuous variables. Length-street density refers to the proportion of the total lengths of streets in the catchment area to the total area of the catchment area. Link density is the total number of streets divided by the total area of the catchment area. Intersection density means the proportion of the number of intersections in the catchment area to the total area of the catchment area. Link-node ratio is obtained from the division of the number of streets by the number of intersections in the catchment areas.

Different analytical tools were applied using GIS to calculate the above-mentioned variables. These analytical tools are network analysis tools and spatial analysis tools. A higher amount of intersection and link density indicates a higher amount of street connectivity in urban areas. Conversely, a higher amount of street-length density is related to a lower amount of street network connectivity.

Additionally, a higher amount of link-node ratio indicates that the number of links is more than the number of intersections in the catchment area, and it can be interpreted that street connectivity is lower with a higher link-node ratio. Understanding the relationship between connectivity and active mobility requires the use of mathematical models like linear regression models.

Fig.1. The street network configuration for catchment area in Romania
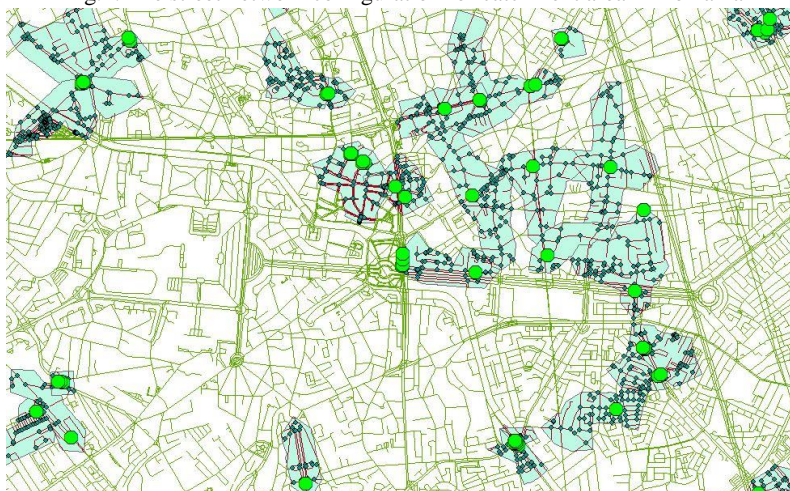
Source: Authors

The international physical activity questions

There are many different ways to analyse physical activity data, but there is no consensus on a correct method for defining or describing levels of activity based on self-report surveys[1]. For this research study, the search was undertaken for a reliable and standard questionnaire in the field of international physical activity. Consequently, the decision was made to use the IPAQ questionnaire, a tool extensively employed in various research studies. The accurate measurement of physical activity is a prerequisite for monitoring population health and evaluating effective interventions.

The International Physical Activity Questionnaire (IPAQ) serves as a comparable and standardized self-report measure of habitual physical activity among populations from different countries and socio-cultural contexts. It's important to note that there are different versions of the IPAQ, including the long form, short form, and last 7 days recall, each tailored to capture varying levels of detail about an individual's physical activity patterns. In this research, the last 7 days recall type of IPAQ is employed.

In this study, a total of 9 different variables were extracted from this report:

● The first variables refer to vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling. For measuring this, the number of days in a week that the participants did vigorous physical activity is needed.
● The second variable measures the average time per day that the participants spent on vigorous activities.
● The third variable refers to Moderate physical activities. This means activities that take moderate physical effort and make breathing somewhat harder than normal and should take

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[1] Guidelines for Data Processing and Analysis of the International Physical Activity Questionnaire (IPAQ) - Short Form, Version 2.0. April 2004

a minimum duration of 10 minutes. Participants should state how many days in a week they had moderate activities.

● The fourth variable measures the average time per day that the participants spent on moderate activities.
● The fifth variable is about walking at least 10 minutes at a time. The number of days in a week is important in this module.
● The sixth variable is the average time per day participants walk at least 10 minutes at a time.
● The seventh variable is about the average time per day for sitting. This may include time spent at work, at home, while doing coursework, and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.
● The last two variables of these series talk about the average time on weekdays and weekends that participants spent on screening. Screening means using a smartphone, TV, e-book,

The aim of collecting these data is to find out what kinds of physical activities people do as part of their everyday lives in the 7 past days. This research study tries to provide a standardized instrument for cross-national monitoring of physical activity and inactivity. The questionnaire was developed to create a common framework for assessing physical activity across different cultures and settings. we seek to standardize the way physical activity is assessed and reported, allowing for comparisons between populations and across countries. In addition, this enables comparisons of physical activity levels between different countries and regions. This is valuable for identifying patterns, disparities, and potential factors influencing physical activity on a global scale. Finally, we understand that physical activity patterns on an international scale requires taking cultural differences into account. Data collection helps identify cultural factors that influence physical activity behaviours, allowing for the development of culturally sensitive interventions.

In the initial examination, a scrutiny is undertaken into the meaning of each variable:

● Continuous Variable: This type of quantitative variable in statistics has the capability to assume any value within a given range. Continuous variables are characterized by a high level of precision, being numerical variables that offer reliability and applicability in subsequent assessments.
● Categorical Variable: A statistical variable falling into the category of categorical variables is capable of assuming one of a limited and typically fixed number of possible values. It allocates individuals or items to a specific group or category. In contrast to continuous variables, which can span any value within a range, categorical variables feature distinct categories or groups without any inherent order. They are commonly utilized to represent qualitative data.
● Binary Variable: A variable classified as binary possesses only two values. Despite being widely used in statistics, the term "binary variable" is infrequently employed. This could be attributed in part to the rarity of encountering a variable with solely two choices outside of a Bernoulli distribution.

The classification of variables is contingent upon their nature. For instance, marital status may offer two options: yes or no. The attempt was made to employ continuous variables as much as possible, aligning with the nature of the variables.

In summary, it can be affirmed that all the variables identified in the international physical activity questionnaire are classified as continuous variables.

In the validation of responses, the Cross-Cultural Validation process is employed. Considering the international nature of the IPAQ, cross-cultural validation is carried out to ensure the questionnaire's consistent performance across various cultural and linguistic groups. Furthermore, the responses are evaluated by each partner in their respective local language. Subsequently, TUB, acting as the coordinator of this project, validates the responses. In this process:

- All responses with data in hours were converted to minutes.
- If the reported numbers of days engaging in activity within a week were inaccurately stated, such as exceeding 7, the responses were removed from the list.

Nutrition and Well-being

In this report, the focus is on determining the health and nutritional status of the well-being of young women aged 18 to 30 in the Balkans. To achieve this objective, various types of research studies and scientific articles are assessed to gather the most accurate variables pertinent to the project. According to the references, five different variables were identified for this study.

- The first variable evaluates the eating habits of participants, where responders can select one option from the following choices: Not healthy at all, Not really healthy, Somewhat Healthy, Very healthy, and Extremely healthy.
- The second variable addresses the number of meals per day each participant consumes on a typical day. The range includes options such as One meal, Two meals, Three meals, One to two meals, Two to three meals, and Three or more meals.
- The third variable pertains to the number of glasses of water participants intake in a day. The range spans from less than 2 glasses per day, 2-4 glasses, 5-7 glasses, to 8 or more glasses per day.
- The fourth variable measures the frequency of consuming junk food per week. Participants are required to indicate how many times per week they consume junk food.
- The last but not least variable in this series assesses the timing of food intake. Participants are prompted to specify at what time of day they consume their main meals, including Breakfast, lunch, and dinner.

The goal of gathering these variables is to collect information about an individual's dietary habits, nutritional intake, and overall food-related behaviours. Information is also collected about the types and amounts of food and beverages consumed by individuals over a specified period, aiding in the evaluation of overall dietary patterns. Additionally, the gathered data helps identify personal food preferences, eating habits, and cultural factors that may influence dietary choices. This, in turn, facilitates the tailoring of dietary recommendations and interventions. The collection of data on nutrition and well-being enables a comprehensive assessment of individuals' overall health.

Physical activity, a crucial component of a healthy lifestyle, is examined in conjunction with nutrition and well-being to provide a holistic perspective. The data also serves to identify both barriers to and facilitators of physical activity. For instance, understanding the relationship between nutrition habits and physical activity levels can reveal whether specific dietary patterns contribute to or impede engagement in regular exercise. Finally, the collected information proves useful for monitoring changes in dietary patterns over time and assessing the effectiveness of nutrition interventions or public health programs.

In this series, most of the variables fall under subsets of categorical variables, indicating that participants need to choose one item from other choices. This includes participants' eating habits, the number of meals per day, and the number of glasses of water they intake in a day.

The other two variables, junk food consumption on a weekly basis and the approximate time of day for each main meal, are subsets of continuous variables. Within this series, there is no binary variable.

In the validation of the questionnaire, the researchers employ the Cross-Cultural Validation process. Given the international nature of the research, cross-cultural validation is conducted to ensure the questionnaire performs consistently across different cultural and linguistic groups. Furthermore, the responses are assessed by each partner in their local language. Subsequently, the TUB, as the coordinator of the project, validates the responses. Additionally, cross-checking responses for internal consistency is deemed important. The researchers ensure that reported dietary habits align with responses to other questions or consumptions of water or junk foods. It is also important that each participant selects just one of the options for each question.

For the last questions in the series, it is emphasized that participants mention the approximate time of day for each meal, not the duration. Finally, the researchers decide to exclude cases with missing information.

Socioeconomic variables

Socioeconomic variables are characteristics or factors that reflect an individual's or a group's in examining an individual's position within the intricate web of social and economic structures, these variables serve as crucial indicators, offering valuable insights into both the economic and

social statuses. This dual perspective is commonly harnessed in various research endeavours, policy analyses, and demographic studies. The utilisation of such variables proves indispensable in unravelling the complex dynamics inherent in societies, ultimately contributing to the formulation of strategies aimed at enhancing overall well-being.

According to a comprehensive survey of research studies and scientific literature, a total of 14 variables have been identified within this expansive series of questions. This array of variables encompasses a multifaceted spectrum:

- Age: An essential demographic marker providing a temporal context to the individual's life journey.
- Height: A biophysical metric contributing to the overall physical profile of the individual.
- Weight: Another biophysical metric, playing a role in health and well-being assessments.
- Job and Employment Status: This variable delves into the multifarious dimensions of occupational engagement, including options such as In paid work, Unemployed and actively looking for a job, permanently sick or disabled, Doing housework, looking after children or other persons, and Student.
- Marital Status: Capturing the relational context of an individual's life, with options including Single/divorced/widow or Married/living with my partner and in a relationship but living separately.
- Health Status: A categorical measure ranging from very bad, bad, Fair, Good, to Very good, offering an evaluation of the participant's perceived health.
- Disability or Mental Health Problem: A nuanced exploration with options such as no, yes, to some extent, and yes, a lot, providing insights into challenges individuals may face.
- Number of Members in the Household: A demographic indicator illuminating the structure of the participant's immediate familial environment.
- Number of Children: Further expanding the demographic narrative to include the presence of children in the participant's life.
- Ownership of Transportation Vehicles: Participants can select from a range of options including car, Bicycle, e-scooter, and Motorcycle, offering a glimpse into mobility choices.
- Access to Transportation Vehicles: Similar to ownership but emphasizes accessibility, allowing participants to choose as many options as they deem fit.
- Gross Household Monthly Income in Euro: A crucial economic metric providing a snapshot of the financial resources available to the household, ranging from 0 euro to 3500 and more euros monthly.
- Financial Status of Each Participant: A subjective self-assessment falling within the range of Low, Low-mid, Mid, Mid-high, and High, shedding light on the participant's perception of their financial well-being.
- Willingness of Participation in an Intervention: The final question gauges the participant's openness to engaging in an intervention, reflecting an aspect of their proactive approach to health-related initiatives.

The objective of utilising socioeconomic variables is to comprehend, analyse, and measure the social and economic characteristics inherent in individuals or groups within a given population. This approach provides a structured framework for assessing the distribution of resources, opportunities, and outcomes within society. The use of socioeconomic variables facilitates an understanding of how the distribution of resources, income, and opportunities within a population influences the well-being and lifestyle of the participants.

Furthermore, the collection of socioeconomic variables aids in identifying disparities in physical activity levels among various demographic groups. This understanding, in turn, enables the design of targeted interventions to address these disparities. Additionally, it allows for the identification and comprehension of the barriers that different socioeconomic groups may encounter in adopting a physically active lifestyle. Such barriers may encompass factors such as limited access to safe recreational spaces, transportation challenges, or time constraints.

Lastly, socioeconomic data serves as a valuable tool for assessing the impact of physical activity programs and interventions across different socioeconomic groups. This evaluative process helps ascertain whether initiatives are effectively reaching their intended audience and contributing positively to the enhancement of physical activity levels.

In this series of questions, variables are categorised into both continuous and categorical groups. Continuous variables, such as age, height, weight, the number of members in the household, and the number of children, fall within the continuous spectrum. Conversely, the rest of the variables are classified as categorical. These encompass Job and employment status, marital status, health status, disability or mental health problem, owning any transportation vehicle, having access to transportation vehicles, GROSS HOUSEHOLD MONTHLY income, and financial status of each participant. The ultimate question, querying the participant's willingness to participate in an intervention, is considered a binary variable.

The researchers check the coding of categorical variables to ensure consistency and accuracy. This step is crucial to avoid misinterpretation during data analysis.
Finally, the researchers undertake cross-verification of responses for internal consistency, recognizing its importance in the validation process. They verify that reported income levels align with reported employment status. For those questions that were missed in responding, the researchers simply remove those responses during the overall assessment process.

Conclusion

In conclusion, the thorough assessment of the Fit-Balkans project emphasises valuable insights into the physical activity patterns, well-being, and perspectives of young women in the Balkan region. The questionnaire's design, incorporating diverse variables like continuous, categorical, and binary elements, enables a nuanced exploration of participants' lifestyles.

The distribution of participants across the case cities mirrors the project's resonance within the diverse Balkan landscape. The strategic selection of cities such as Bucharest, Athens, Plovdiv, Shtip, and Nis actively contributes to the initiative, highlighting the project's impact on a regional scale.

The technical report on neighbourhood variables delves into the intricate relationship between participants and their local surroundings. Examining walking and cycling infrastructure, neighbourhood pleasantness, and safety perceptions offers a holistic understanding of how the built environment shapes lifestyle choices. This knowledge is crucial for guiding interventions and policies aimed at fostering neighbourhoods conducive to active living.

The International Physical Activity Questionnaire (IPAQ) serves as a robust tool for capturing participants' physical activity levels, providing standardised and comparable data. The inclusion of nine different variables, ranging from vigorous activities to sitting time, facilitates a detailed exploration of the types and durations of physical activities among participants.

Collecting these variables goes beyond monitoring population health; it aims to facilitate cross-national comparisons and identify cultural factors influencing physical activity behaviours. The questionnaire, validated through a cross-cultural validation process, ensures the reliability and consistency of responses across diverse cultural and linguistic groups.

The Fit-Balkans initiative's overall commitment to a holistic understanding of participants' lives, coupled with the careful validation and cleaning of collected data, underscores the reliability and significance of the findings. This report goes beyond presenting data points; it narrates how young women in the Balkans navigate their environments, make lifestyle choices, and aspire to lead healthier and more active lives.

Looking forward, the Fit-Balkans initiative is poised to sustain its focus on participants who have willingly embraced and actively engaged with the interventions. This phase involves closely monitoring the impact of these interventions on their daily routines and well-being. The commitment of these participants reflects a shared dedication to cultivating sustainable and healthier lifestyles. By maintaining this collaborative effort, we aim not only to enhance individual well-being but also to gather insights that will inform future initiatives, contributing to the broader mission of promoting active living across the Balkans.

Reflecting on the extensive dataset derived from the Fit-Balkans questionnaire, it becomes evident that this initiative is more than just a research project; it serves as a catalyst for positive change. The findings lay a foundation for evidence-based interventions and policies that can contribute to the creation of healthier, more active communities. Fit-Balkans stands as a noteworthy endeavour, not only for the well-being of its participants but also for the broader goal of promoting a culture of active living across the Balkans.