

Deliverable 4.3.2 PHC infrastructure accessibility assesment

Accessibility assessment to Ardino Hospital

Strengthening primary Medical care in IsoLated and deprived cross-border arEas



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Introduction

Ardino is a town and a municipality in the Region of Kurdjali, Bulgaria, built on the side of the Rhodope Mountains. The municipality has an area of 338.848 sq. km, 17.928 of which belong to the municipal centre and with total population of 12 792 people as of December 2018 (National Statistical Institute).

The Multi-profile Hospital for Active Treatment of Ardino is the most important provider of medical treatment and services on the territory of Ardino municipality. Since its establishment in 1958, the municipal hospital performs outpatient and inpatient treatment activity in the following specialties: Internal Medicine, Cardiology, Pediatrics, Surgery, Anesthesiology and Intensive care, Obstetrics and Gynecology, Clinical Laboratory, Imaging. The activity is carried out in four divisions – Children's Ward, Surgical Ward, Internal Diseases Ward and Gynecology and Obstetrics Ward (currently not operating).



Photo: General view of the building

Parking spaces

6 parking spaces for the use of the hospital's personnel and the general public are available at the hospital's yard. Spaces are not specifically marked.

Also, parking of vehicles is possible in other parts of the yard, thus sometimes interrupting the work of the Emergency Aid Centre that is located in part of the building.



Photo: Parking area in front of hospital's main entrance



Photo: Parked vehicles in other parts of hospital's yard

Access to entrances

Access to the hospital's yard is achieved through a main entrance which remains open. A smaller door is available for pedestrians, although due to the vast opening next to it remains unused.



Photo: Entrance to the hospital's yard

As the hospital is located at a L-shaped street, two sidewalks ensure the access to the building. Both sidewalks have pavement of concrete tiles, which is newly constructed and in very good condition. The pavement has sufficient width (an average of 2,20m) and has kerb of 0,20m with proper dropped kerbs constructed on both sidewalks.



Photo: The street and the L-shaped street in front of the hospital



Photos: The street and sidewalk in front of the hospital

Unfortunately, the road in front of the hospital is in poor condition and appears to have maintenance problems which create an uneven and not homogenous surface, which may cause trouble when crossing the road and when reaching hospital's yard as the sidewalks finish before it. Actually, no sidewalks are constructed in the yard as the movement of pedestrians is done on the road, where cars and ambulances access the hospital. Sidewalks are available only at the backside of the hospital and are rarely used.

Benches are installed near the building's main entrance for the use of the building's visitors. The seat is located at 0,46m high. No handrails are available to assist users with reduced mobility. Their location and shape may also hinder the movement of visitors with visual disabilities, particularly those using white canes for their orientation.



Photos: Benches installed near the building's main entrance

Entrances

In total, 3 entrances are used in Ardino Hospital, with 2 of them used by the general public and a secondary one used only on specific occasions by the hospital's personnel. There is a 4th entrance that is used for sanitary needs only and in case of evacuation.

The main entrance ensures the access of patients between 06:30 and 20:00. During the rest of the time, patients use the entrance for the Emergency Aid Center on the left side of the building.

The main entrance has height difference of 0,85m with the level of the yard. Respectively, the access to the building is ensured by a straight staircase of 6 concrete steps covered with mosaic, each with dimensions 2,86 x 0,15 x 0,30m. On the left side there is a concrete L-turn ramp, situated on the left side of the staircase. Its length is respectively 6,00m and 1,10m, and the width is respectively 1,25m and 1,10m with an inclination of 12,0% which is much higher than the maximum allowed by the Bulgarian accessibility guidelines. There is a landing that provides space to change direction with dimensions 1,20m and 0,80m, which is enough for a wheel chair. Also, handrails are installed with upper level at 0,75m and extended to more than 0,30m after the end of the ramp which leads the patient to a clear level space (1,90m to 2,10m) in front of the entrance that provides enough space to accommodate a wheelchair maneuver. No tactile surface indicators are available.



Photo: Staircase and ramp at the general entrance of Ardino hospital

The surface of the ramp has certain defects that may cause difficulties for people with disabilities but at the same time it seems to offer sufficient slip resistance characteristics.

The main door has two opening leafs, with the total free width reaching 1,80m but the leaf that holds the handle is opening at 0,80m, which is the minimum that is required by the legislation and is valid only for specific cases. The door opens manually, to the outside of the building, through a handle located at 1,05m. Also, there is a 7cm threshold that can be non-negotiable for wheelchair users.

A vestibule is created after the main entrance with a width of 1,90m and a length of 2,50m. These dimensions are sufficient for ease of use. The vestibule leads to an internal door, with similar characteristics to the main one, with a clear length

1,50m and a main leaf opening at 0,95m, which is sufficient for wheelchair users. The second leaf stays fixed most of the time and is being opened whenever needed with the assistance of the personnel. The doors open manually in the same direction toward the outside of the building, through a handle that is located between 0,70m and 1,00m.

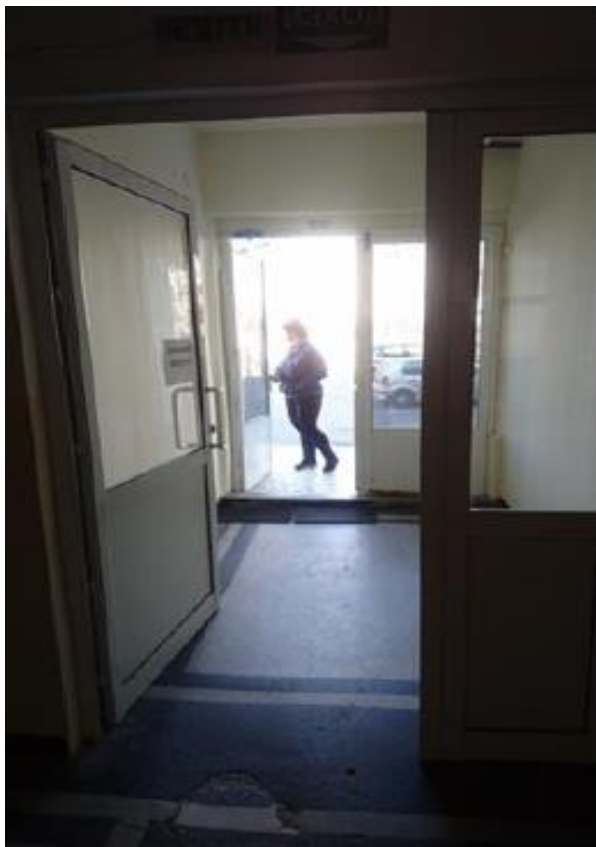


Photo: Doors of the main entrance and a vestibule



Photo: Threshold at the door of the general entrance

The 2nd entrance is used to achieve direct access to the Emergency Aid Center Kardjali – Ardino branch and is located on the left narrow side of the hospital. This entrance is also used to access the hospital in case the general exit is locked during the nights.

A double-sided concrete ramp leads to the entrance. The ramp's inclination is significant - about 22,5% with slight variations due to the construction but still it is impossible to be used by wheelchair users without help from the personnel. Each side of the ramp is 3,0-3,1m long and 3,1m wide, leading to the landing with dimensions 6,00m to 3,1m and having a high difference of 0,70m. The surface of the ramp and the landing has certain defects that may cause difficulties for people with disabilities but at the same time it seems to offer sufficient slip resistance characteristics.

The ramp leads to an opening door which has 2,00m clear width, provided by two opening leafs of 1,00m clear width each. The opening is to the inside of the building by a door handle located at 1,05m high.

Handrails are installed along the whole length of the ramp and have upper level at 0,75m.



Photo: The 2nd entrance leading to the Emergency Aid Center
Kardjali – Ardino branch



Photo: Ramp leading to the 2nd entrance

The third entrance, located on the back side of the building, is used only by the personnel. In this part of the yard, there is a sidewalk right next to the building with a kerb of 4 cm which is not dropped. Then, there is a small landing (1,00m to 0,48m) right in front of the door, which opens manually to the outside of the building, with a handle at 1,05m and a clear width of 0,80m. All this makes it not appropriate for wheelchair users.



Photo: The building's secondary entrance

Horizontal circulation

The main entrance leads to a larger vestibule, where also the hospital's information desk is located. The room has considerable dimensions that make its negotiation easy, even for wheelchair users. The floor is concrete and covered with mosaics (in the hall and in all corridors and staircase) which could create a slippery surface for visitors with mobility impairments.

The vestibule, as well as the building's interior corridors, has visitor benches with enough colour contrast with the surroundings, thus assisting visitors with restricted vision with their identification. The seats' base is located at 42 cm high and provide handles for the side seats only, thus being comfortable for patients with different needs.

The information desk itself is located at 1,00m high, not allowing wheelchair users to have unobstructed eye contact with the centre's employee. The desk has a useful surface which can be used by the visitor in order to fill in forms etc. The dark brown colour against a light background creates sufficient colour contrast.



Photo: Info and registration desk at Ardino hospital

The vestibule leads to several corridors which connect the building's entrances with the Children's Ward, various examination rooms, the premises of the Emergency Help Centre Kurdjali – Ardino branch as well as to the main administrative rooms such as the Director's office and provides access to the other floors of the hospital through a staircase and elevator. Corridors' free width varies, with the minimum width being 2,20 cm and partly occupied by benches, located in the corridor with the examination offices. Still, there is enough space for wheelchair users including to make a u-turn.



Photos: Corridors in Ardino Hospital

The white color of doors and frames against a light background does not create sufficient color contrast in order to assist visitors with restricted vision.

The large vestibule provides access to the other floors of the hospital by elevator and by stairs.

Vertical circulation

Elevator connects 1 underground and 3 upper floors of the building. There is a second lower underground level that is accessible only by stairs but it is used rarely and for personnel needs only, mostly for storage.

The location of the elevator is on the right side of the main entrance and is directly visible. It is designed for 16 persons and has automatic sliding door. The clear width of the door is 1,10m leading to a cabin with dimensions 1,25 x 2,40 x 2,01m.

The operating buttons are raised, large, lighted and tactile, located between 1,03-1,20m high.

The elevator provides only visible signage for rise/descent and opening/closing of the doors. Respectively, there is no audible announcement of the floors in order to assist people with restricted vision. Grab bars are installed on the side in front of the door

According to the requirement of the Bulgarian legislation, emergency phone is installed as well as contact details with the maintenance company are provided in case emergency occurs.



Photos: Elevator in Ardino Hospital

Ardino Hospital has 2 staircases. The main one connects the general and the third entrance with the rest of the building, as well as the second stair case ensures the connections of the second entrance.

The main staircase consists of large stairs with turns and landings. The clear width slightly varies between 1,38m and 1,42m as the high of the riser is between 12,5 and 14cm. All stairs have depth of 30cm along the walking line.

The staircase is very light during the days as numbers of windows are installed. Superficial lighting by number of fluorescent lamps is provided for the rest of the time.

There are continuous handrails in the inner part of the staircase for protection and to help people.



Photos: Main staircase in Ardino Hospital

There is a second staircase, with secondary functions which is used mainly by the personnel. It connects the second entrance with the Emergency Help Centre Kurdjali and the rest of the building.

It consists of even stairs (width 1,25m, height 0,15m and depth 0,34m) with turns and landings. Natural lighting is provided by several windows but during the rest of the time the lighting is not enough.

There are continuous handrails in the inner part of the staircase for protection and to help people.



Photos: Secondary staircase in Ardino Hospital

Administrative offices

The administrative offices are located on the first floor and are directly accessible through the large vestibule.

The Director's cabinet has a door with clear width of 0,80m, which is operated manually with a handle at 1,05m high. It is easy to operate without significant force to open and also can be operated with closed fist.

The door opens inwards and provides easy access without a threshold or any other high differences. The room is covered with terracotta and furnished with dark coloured furniture that is not fixed. The room is spacious and provides enough space for people with wheelchairs, including making a manoeuvre. In case needed, it is easy to make more space by moving part of the furniture.

There are several windows, with lowest level at 0,90m from the ground, with blinds that cannot be operated by person using a wheelchair.



Photo: Director's cabinet

Hospital's secretariat, as well as other rooms with similar use, have sufficient dimension and typical office furniture. The doors are opening to the inside with 0,80m available free width and door handles located at 1,05m high. Furniture is easily movable and respectively their position can be changed in order to accommodate more easily visitors with disabilities.

Examination rooms

Examination rooms are located on the 1st floor in the Eastern wing of the hospital. Rooms are located in a separate corridor, which begins from the large vestibule and are accessible through a door with two similar swinging leaves, each of which has free width of 0,70m and 1,40m in total.



Photo: Internal door leading to the examination rooms

There are 8 examination rooms (respectively Pediatrician, Ophthalmology, Cardiology and Internal Diseases, Neurology, Obstetric Gynaecological, Surgical, Urology, Dentist), located on both sides of the corridor. The doors are white and do not create enough contrast from the colour of the walls for people with visibility problems.

All the rooms have proper signage concerning the different uses of the rooms. The respective signs have antireflective surface and are located in the middle of the door at high of 1,60m, some signs – at 1,80m.



Photo: Signage on the examination rooms

The examination rooms have doors with dimensions 2,15m x 0,95m and free width of 0,90m, allowing easy access by wheelchair users. Only the Pediatrician examination room has a smaller door (1,95m X 0,85m) but still providing enough free width of 0,8m for a wheelchair user.

Ordinary door handles are located at around 1,05 m. They are easy to operate without significant force to open and also can be operated with closed fist. Doors open inwards and provide easy access without a threshold or any other high differences. Rooms are covered with terracotta and furnished with dark coloured furniture that is not fixed. In case needed, it is easy to make more space by moving part of the furniture.

One of the examination rooms is the Pediatrician examination room. Its dimensions are sufficient (4,10m X 3,25m). The room provides enough space inside for a wheelchair user. There are two desks with dark color that provides enough contrast with the walls. In all other examination rooms there is only one desk and respectively even more space to enter and make a maneuver.

The various pieces of equipment (such as a baby scale) are placed at 0,80– 0,90m high, the couch is at 0,90m high.



Photo: Pediatrician examination room



Photo: Pediatrician examination room

Emergency Aid Center Kardjali – Ardino branch

In part of hospital's premises is located a branch of the Emergency Aid Center. It is under the supervision of the Emergency Aid Center Kardjali and respectively the Ministry of Health of Bulgaria.

The Center is on the 1st floor, in the Eastern wing right after the examination rooms and next to the 2nd entrance of Ardino Hospital with the ramp for vehicles.

Emergency medical services are provided 24 hours a day by 5 doctors, 5 paramedics and 5 drivers for emergency and urgent medical care.

Currently, 4 premises are in operation, respectively Resuscitation and Manipulation, Dispatcher Cabinet, Doctor's Office and Driver's Room and after the completion of an on-going project of the Ministry of Health, 4 more premises will be equipped.



Photos: Emergency Aid Center Kardjali – Ardino branch

Children's Ward

Children's Ward is located on the 1st floor in the Northern wing of the hospital. All premises are located in a separate corridor, which begins from the large vestibule and is accessible through a door with clear width 1,50m and a main leaf opening at 0,95m, which is sufficient for wheelchair users. The second leaf stays fixed most of the time and is being opened whenever needed. The doors open manually in the same direction toward the vestibule, through a handle that is located at 1,05m high. The corridor of the ward is 2,20m wide.



Photo: Doors leading to the Children's Ward Photo: Corridor of the Children's Ward

The Ward consists of the following premises: Cabinet of Head of Children's Ward, Ordinary Cabinet, Nurses' Room, Manipulation Room, Intense Care Cabinet, Warehouse, 4 hospital rooms (boxes allowing visual contact from the Manipulation Room), 2 isolators with separate bathrooms, 2 toilets (one for personnel and one for patients), bathroom, kitchen and dining room.



Photos: Patient's room in Children's Ward

Clinical Laboratory

Clinical Laboratory and the respective related offices are located on the 2nd floor in the Eastern wing of the hospital. It is accessible through the main staircase and the elevator through the large vestibule. The corridor's that leads to the Laboratory has free width of 2,20m and is partly occupied by benches but they don't hinder the wheelchair users as well as provide enough space to make a u-turn.



Photos: Clinical Laboratory

The room where blood sampling takes place is accessible through a door with dimensions 2,15m x 0,95m and free width of 0,90m, allowing easy access to wheelchair users. Ordinary door handle is located at 1,05m and it is easy to operate without significant force to open and with closed fist too. The door opens inwards and provides easy access without a threshold or any other high difference.

The room is 1,90m x 3,10m and is equipped with a desk, couch, sink and 3 chairs. The furniture is dark coloured and is not fixed, thus allowing to be moved in case needed so as to make more space.

Simple chair is used for blood sampling, with a seat at 44cm high, without arms. Couch is at 50cm high.

Even though the room is narrow, after removing the existing chair, there is enough space for a wheelchair user to enter and to be taken blood sample without making a transition to the chair in the laboratory. In this case, additional help from the personnel is needed as well as to make a U-turn as there is not enough free space of 1,50m x 1,50m.

In the same corridor, next to the Clinical laboratory, are also the Physiotherapy premises, X-Rays Cabinets and the respective related offices.



Photo: X-Rays Cabinet

Ambulatories for primary outpatient care (General practices)

There are two ambulatories for primary outpatient care in Ardino Hospital, located on the 2nd floor of the building. They are accessible through a door that leads to a small vestibule with benches. Each ambulatory has 4 premises,

One ambulatory is accessible through the large vestibule right next to the elevator and the second is at the end of the Eastern wing.



Photo: Vestibule in front of an ambulatory for primary outpatient care



Photos: Premises of an ambulatory for primary outpatient care

The rooms have doors with dimensions 2,15m x 0,95m and free width of 0,90m, allowing easy access by wheelchair users.

Ordinary door handles are located at around 1,05 m. They are easy to operate without significant force to open and also can be operated with closed fist. Doors open inwards and provide easy access without a threshold or any other high differences.

Rooms are covered with terracotta and provide enough space for a wheelchair user including to make a U-turn. There are desks with dark color that provides enough contrast with the walls and various pieces of equipment that is placed at 0,80– 0,90m high, the couch is at 0,90m high. They are not fixed and can be easily moved in case more space is needed.

Surgical Ward

Surgical Ward is located on the 3rd floor in the Eastern wing of the hospital. All premises are located in a separate corridor, which begins from the large vestibule (similar to the one of the 1st floor) and is accessible through a door with clear width 1,80m and a main leaf opening at 0,90m, and a second leaf that is being opened whenever needed. The doors open manually in the same direction toward the vestibule, through a handle that is located at 1,05m high. The corridor of the ward is 2,20m wide.

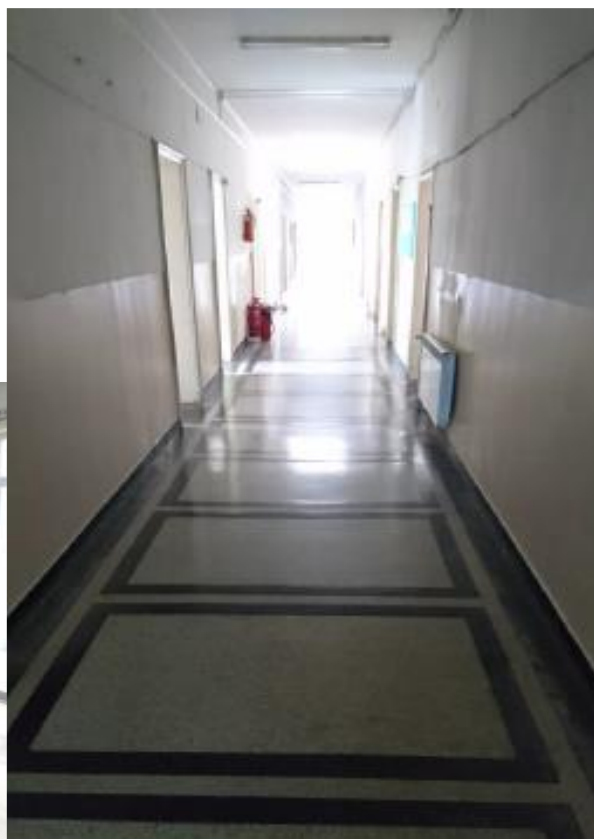


Photo: Doors leading to the Surgical Ward Photo: Corridor of the Surgical Ward

The Ward consists of the following premises: Operating room with 2 halls (septic and aseptic), Room for intensive treatment, Endoscopic Cabinet, Manipulation Room, 4 Doctors' cabinets, Cabinet of the Chief Nurse, Nurses' room, 6 patient rooms (one has separate bathroom), 2 toilets for patients and 1 for the staff, kitchen, dining room and two storage rooms.



Photo: Patient's room in Surgical Ward

Internal Diseases Ward

Internal Diseases Ward is located on the 2nd floor in the Northern wing of the hospital. All premises are located in a separate corridor, which begins from the large vestibule (similar to the one of the 1st floor) and is accessible through a door with clear width 1,50m and a main leaf opening at 0,95m, which is sufficient for wheelchair users. The second leaf stays fixed most of the time and is being opened whenever needed. The doors open manually in the same direction toward the vestibule, through a handle that is located at 1,05m high. The corridor of the ward is 2,20m wide.

The Ward consists of the following premises: Doctors' Cabinet, Nurses' room, 8 hospital rooms, 1 bathroom for patients and 1 for the staff, 2 toilets for patients, sanitary room, changing room, relaxation room, kitchen (2 rooms) and a storage room.



Photos: Internal Diseases Ward

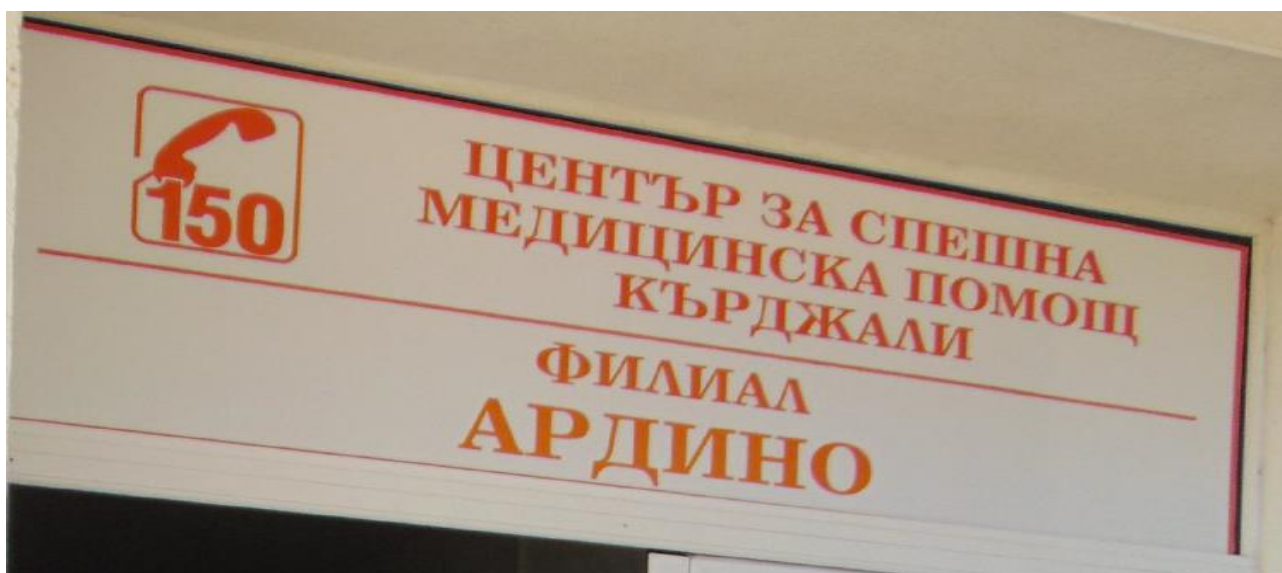


Photo: Patient's room in Internal Diseases Ward

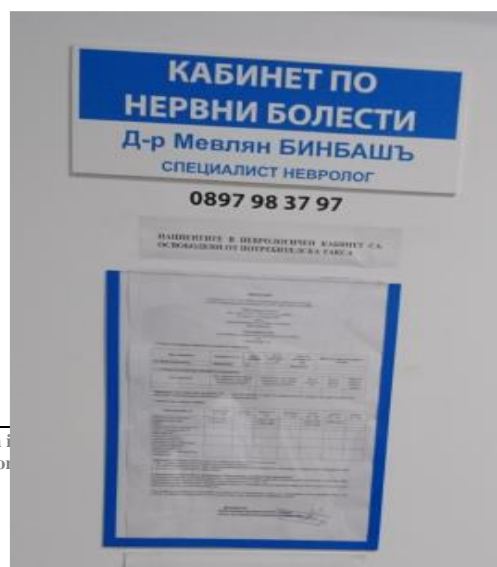
The Gynecology and Obstetrics Ward, which is currently not in operation, is located on the 3rd floor of the building.

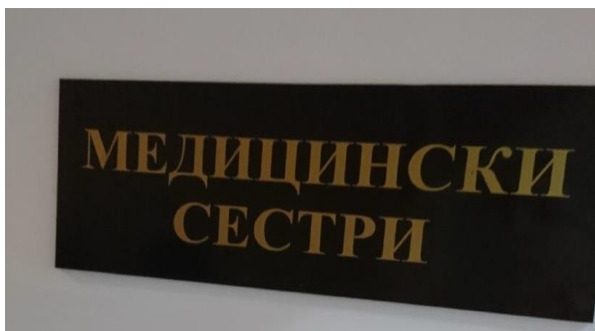
Signage

There are different types of signage used in the different parts of the hospital. In some cases, the signs are created by the personnel in order to provide visitors with useful information. Standardized template for the signs has been recently introduced with the renovation of some of the premises. No tactile signage is available and no colour coding is used in any form.



Photos: Signs at the hospital's exterior





Photos: Signs at the hospital's interior

Sanitary facilities

The hospital has 17 sanitary facilities (laboratories/toilets) respectively 6 located on the 1st floor, 5 on the 2nd and 6 on the 3rd. Some of them have been recently renovated (like the ones in the Children's Ward) and are in very good condition.



Photos: Bathroom in the Children's Ward

The sanitary facilities are dispersed in the hospital – both in the wards and in the corridors. Each floor has a public restroom (lavatory/toilet) that is opened all the time. All are gender neutral.

The clear width of the doors entering these premises varies between 0,70-0,90m and is it opening manually by a door handle at 0,95m high which can be operated easily, even with a closed fist. Doors are hinge type and are opening to the inside. The floor is covered with terracotta and has no height differences between the corridor and the restroom floor.

There is no specific accessible public restroom in the hospital. The one on the 1st floor provides wheelchair users with enough space to enter and make a maneuver. Transition of wheelchair users is possible from the right side only and is not facilitate by a handrail. The top of the WC is located 40cm from the floor and has a flush tank button at 0,93m height.

There is easy access to the sink, which is in the same room, but its top is at 0,80m from the floor, with the tap located at 0,98m.



Photos: Restroom on the 1st floor

Additional equipment/services

One vending machine is available for visitors. It is located in the large vestibule on the 1st floor, right before the elevator and it is easily identified. Also, it can be used easily by wheelchair users as the buttons are located between 0,90 and 1,20m high and the coin slot is at 1,25m.



Photo: The vending machine

Garbage cans are available both in the building and in the yard of the hospital. There is also a water tap available for the public at the yard.



Photo: Fresh water tap