

**Project *Serving People, Improving Health*,  
World Bank Loan # 8475-UA  
TERMS OF REFERENCE AND SCOPE OF SERVICES**  
for Consulting Services (Selection Based on Consultants' Qualifications (CQS))

**CQS - 8.3.1. Web Portal Development and Support**

## **I. BACKGROUND**

The Government of Ukraine received a loan #8475-UA (hereinafter referred to as the Loan) from the World Bank for funding the project *Serving People, Improving Health* (hereinafter referred to as the Project). The Project is aimed at improving the quality of medical care in the selected regions, with special emphasis on primary and secondary prevention of cardiovascular diseases and cancer, and improving the efficiency of the health system.

The Project consists of the following parts:

- Part 1. Improving service delivery at a local level;
- Part 2. Strengthening Governance and profile of the Ministry of Health;
- Part 3. Project management, monitoring and evaluation.

Within the framework of Part 1 of the Project, Rivne region was granted the funding for the implementation of the investment sub-project *Increase the effectiveness of treatment and prevention of cardiovascular diseases in Rivne Region for the period of 2015-2020* approved by the World Bank and aimed at early detection and treatment of cardiovascular diseases, and improvement of the systems of medical care, including the measures focused on improving primary health, combating CVD on the secondary and tertiary care level.

A part of the funding shall be allocated for "Web Portal Development and Support" consulting services under the Contract to be concluded between Health Department of Rivne Region State Administration (hereinafter referred to as the **Client**) and the contractor that will develop and populate the content of the web portal (hereinafter referred to as the **Consultant**) under these Terms of Reference.

## **II. OBJECTIVE**

The objective of the Terms of Reference is to develop a web portal titled *Cardiovascular Diseases: Prevention, Diagnosis, Treatment* (hereinafter referred to as the Website) and its content aimed at fulfilling the tasks within the sub-project *Increase the effectiveness of treatment and prevention of cardiovascular diseases in Rivne Region for the period of 2015-2020*, particularly at raising public awareness about cardiovascular diseases (hereinafter referred to as CVD), their prevention, diagnosis and treatment; to promote healthy lifestyle as the primary possibility for preventing cardiovascular diseases; to provide information to health care personnel of primary, secondary and tertiary units about the latest trends in CVD diagnosis and treatment.

The TOR envisages the development and putting into operation of an information web portal facilitating the following activities:

- improve CVD prevention awareness among the general public;
- improve the functioning and interaction of primary, secondary and tertiary units that provide care for patients with CVD;
- create an electronic database of information on the current situation, latest methods, protocols and standards for CVD prevention, diagnosis and treatment;
- provide feedback options and assistance to the population living in the region;

- fulfill the requirements of the current regulations and Ukrainian legislation in general, particularly:
  - the Order of the Ministry of Health of Ukraine No.436 of July 03, 2006 "On approval and implementation of protocols for provision of medical services in cardiology";
  - the Order of the Ministry of Health of Ukraine No.597 of September 16, 2011 "On approval of the Sectoral program of medical care standardization for the period until 2020";
  - the Order of the Ministry of Health of Ukraine No.384 of May 24, 2011 "On approval and implementation of medical and technical documents on standardization of medical care in patients with arterial hypertension";
  - the Order of the Ministry of Health of Ukraine No.621-60 of July 24, 2013 "On providing medical aid to patients with cardiovascular diseases in health care institutions of Ukraine";
  - the Order of ROSA Health Care Department No. 326 of December 3, 2014 "Doctors' actions on the route of patients diagnosed with AMI with ST-segment elevation in Rivne region". Local protocol;
  - protocols and standards of providing medical aid to patients with cardiac diseases.

### III. SCOPE OF SERVICES

The Consultant shall provide Website creation and content development services.

To achieve the Project objectives, the Consultant shall provide the following services and perform the following assignments within the Terms of Reference:

1. To develop the design of the Website and get it agreed by the Client.
2. To develop the structure of an interactive prototype of the Website and the method of information display on every page and get them agreed by the Client.
3. To develop and approve the Program of the Website acceptance tests that shall enable the Client to verify full compliance of the Website with the requirements of the TR.
4. To develop the plan for healthy lifestyle, CVD prevention, diagnosis and treatment information campaign, and get it agreed by the Client.
5. To develop the materials on healthy lifestyle, CVD prevention, diagnosis and treatment information campaign for the general public and health care personnel, and get it agreed by the Client.
6. To populate the Website content with information materials for the general public on healthy lifestyle and CVD prevention, and with information about CVD to raise awareness among the members of health care personnel.
7. To develop and implement tools for importing content from open sources, social networks and mass media.
8. To develop target audience and marketing strategy for the Website promotion, and obtain approval from the Client.
9. To develop the system of the Website administration and get it agreed by the Client.
10. To ensure hosting at site with access to UA-IX traffic channels with mandatory compliance with the requirements for information security in information and telecommunication systems pursuant to the current Ukrainian legislation.
11. To ensure the placement of the developed Website at this hosting and its testing.
12. To register the Website with at least five top-rated search engines in Ukraine and ensure its SEO optimization aimed at the target audience of Rivne region.
13. To carry out Website administration training for at least three (3) Client's employees.
14. To provide all required technical documentation (guidelines for the system installation at external server, including list of software to be installed at the server; guidelines for management of administrative part of the Website, guidelines for Website content creation, documents on CMS and services operation, etc.).

15. To provide monthly and annual reports on the Website traffic broken down by Ukraine and Rivne region (with detailed statistics by the districts of the region).
16. To ensure warranty liabilities and the Website support from the date of signing of the Statement of Website acceptance (end of Phase 2) until December 31, 2019.
17. To provide other services directly related to the stated above.

### **Breakdown by Phases**

#### **Phase 1**

1. Development of the plan and materials on healthy lifestyle, CVD prevention, diagnosis and treatment information campaign for the general public and health care personnel, and getting them agreed by the Client.
2. Development of an interactive prototype taking into account the options of the Website operation.
3. Development of the detailed structure of the Website and final Terms of Reference and their approval by the Client.
4. Development of at least 3 versions of the Website design with mandatory display of its main page and primary second-level pages.
5. Reworking of chosen version of the Website design according to the Client's requirements.

#### **Deliverables for Phase 1**

- Detailed structure of the Website and the final Terms of Reference
- Prepared content ready to be published online on the Website
- An interactive prototype (interlinked HTML documents)
- Document describing the design tentatively approved by the Client
- Structure and materials
- Report on the completion of Phase 1

#### **Phase 2**

1. HTML-designing of the approved version of the Website.
2. Software development in accordance with the final ToR.
3. Replenishment of the portal with the developed materials.
4. Testing and setting up of the Website at hosting; ensuring the launch of the Website in public access mode.
5. Full range of Website tests carried out by the Consultant, including fail-safe load and hacking attack test.
6. Registration of the Website in global and Ukrainian search engines.
7. Training the Client's staff.
8. Development of technical documentation.
9. Testing of the Website by the Client.

#### ***Deliverables for Phase 2***

1. Operational Website tested by the Client.
2. Technical documentation.
3. Testing procedure and training report.
4. Website acceptance test. Testing report.
5. Operational Website featuring the materials provided by the Client.
6. Report on the completion of Phase 2.

#### **Phase 3. Warranty and support**

The Consultant shall be obliged to upload all materials developed to the Website in Phase 2. The information may include text, images, videos, audio materials, presentations, surveys, etc.

Warranty liabilities cover the repair of possible flaws revealed during Phases 1-2 within the framework of the approved Terms of Reference as soon as practicable but not later than Phase 2 completion deadline.

The Consultant shall be obliged to ensure warranty liabilities and Website support from the date of signing of the Statement of Website acceptance (end of Phase 2) until December 31, 2019.

During the mentioned period the Consultant shall guarantee free correction of possible errors, shortcomings or defects within the approved Terms of Reference that were revealed during the warranty period, including:

- errors that took place through the Consultant's fault;
- non-implemented requirement described in the Terms of Reference;
- logical, syntax or other errors committed by the Consultant when developing the Website;
- bad links;
- non-loadable pictures or videos, bad links to files and documents in the Website structure;
- errors in digits and titles that do not correspond to the digits and titles provided in the Terms of Reference;
- errors in software modules/code, if revealed;
- others.

Errors that took place through the Consultant's fault include, inter alia:

- unexpected technical messages (inscriptions) unrelated to the content, i.e. "warnings", "errors", "notices". In this case the Consultant shall be obliged to correct the error within the Terms of Reference;
- pages shown to users contain (in addition to the requested content i.e. information content of the Website) also unrequested technical messages;
- blank pages are shown (in cases when pursuant to the Client's intention the appropriate page should have some information be shown through user's browser);
- links provided by the Client through the system's Control panel operate incorrectly;
- the system does not respond to the user's activities (the Website «hang-up») for a long time (except for problems with Internet connection or host server);

All assignments not described in the Terms of Reference shall be written separately as addenda with additional time and cost estimation.

### ***Deliverables for Phase 3***

1. Quarterly reports on the support services.

Inter alia, the Website shall meet the following requirements:

- to use advanced technology and frameworks;
- the Website shall be based on CMS WordPress;
- the Website shall have responsive design;
- to have high usability rate, i.e. clear navigation, right format for links and headers, convenient location for information blocks, easily readable fonts, etc.;
- to meet the requirements of W3C WAI level A standards and full compliance with standards of HTML5, CSS3 and other W3C standards (this means W3C validation passed);
- to support all up to date browsers (Internet Explorer 9+, Firefox 25+, Chrome 30+, Opera 13+, Safari 7+), operation systems (Windows XP/Vista/7/8, Mac OS X 10.6+, Linux (the most widespread distributives) and mobile devices (Android, iOS), etc.;
- the Website shall comply with all current Ukrainian laws and regulations (as of date of the Acceptance Certificate signing);

- the Website software shall enable user-friendly and automated operation by the administrator in terms of new Website sections creation or the rearrangement of the existing information by sections;
- content creation and editing by Website Editors shall be available via HTTPS only (with traffic encryption between the Website and a work station);
- accounts created by the Website administrator shall be protected by passwords that prevent their reverse decoding within less than 3 calendar months;
- authorized user password exchange between the Website and the user's work station shall occur via HTTPS only;
- the Website software shall support the Website's operation 24 hours a day, 7 days a week, 365 days a year (subject to hardware non-failure);
- the Website software shall not require service breaks for maintenance and/or Website data backup;
- The Website shall include tools for creating add-ons (modules). Website administrator shall be enabled to create forms for surveys, registration, etc.;
- the Website shall feature backup capabilities with the options for backup volume and frequency.

#### Content Requirements

- the content should comply with the requirements of local protocols to be provided by the consultants appointed by RRSA HCD and the current legislation of Ukraine;
- the content and its types for each section and category shall be agreed with the consultants of RRSA HCD;
- information materials development shall be carried out by institutions licensed by the MoH of Ukraine for the specified business activity within the specified activity profile and specialty field.

Scalability in terms of increasing the volume of stored information should be carried out by increasing the size of disk storage within the Website hardware.

The Website should provide scalability while maintaining the following parameters:

- loading time for any of the primary pages of the website shall not exceed 5 seconds (at the load of at least 100 requests per second) with simultaneous processing and publishing of 30 (thirty) pieces of information materials per hour in different Website sections, without any service failures or page load downtime;
- the number of unique Website visitors at least 12 thousand a day.

#### **Testing and Commissioning**

The services under Phase 1 and 2 shall be accepted by the Client on the basis of appropriate Consultant's reports on completion of Phases 1 and 2 of the contract and the required deliverables for each phase.

Upon completion of Phase 2, the Client shall carry out tests of the developed Website and its modules to determine its compliance with all the requirements stipulated in the Terms of Reference. The Consultant shall develop the testing procedures as acceptable for the Client.

If the tests are successful after the Consultant has submitted the report in the end of Phase 2, the Parties shall sign the Statement of Website acceptance (completion of Phase 2 of the Contract).

All intellectual property rights to the software and content developed under the Contract shall pass to the Client upon the acceptance of the software (completion of Phase 2 of the Contract).

Phase 3 support services shall be acceptable by the Client upon the reception of the relevant quarterly reports on the support services.

#### **Quality Control**

System testing and works quality assessment shall be carried out at each phase of the Terms of Reference implementation. Discovered faults and defects shall be described. Results of the quality control shall be sent to the Consultant for their correction by the end of phase where faults and defects were revealed.

The Quality Control phase shall continue until there are no faults and defects revealed at the phase, which fact shall be noted in the report on the phase completion.

Detailed technical requirements and explanations for the Website development and operation are provided in Annex 1 being an integral part of the Terms of Reference. Final technical requirements will be approved during contract negotiations with selected Consultant based on Annex 1 and Consultant's technical and financial proposal.

#### **IV. QUALIFICATION REQUIREMENTS TO THE CONSULTANT AND CONSULTANT'S STAFF**

##### **1. Requirements to the consultant's qualification** **Mandatory qualification:**

<b>Essential requirements</b>	<b>Compliance (YES/NO)</b>	<b>Please indicate the reference to the page and paragraph proving the compliance in your competitive bid</b>
1. Legal entity that operates on the market of website and portal development for at least 5 years (please provide documents proving the date of state registration and economic activities according to the National classifier of types of economic activities of Ukraine (KVED)).		
2. At least 10 projects of website and portal development/implementation (please list websites and portals designed indicating their links/URL addresses).		

3. At least 5 professional members of legal entity's own staff (project manager, software developer, web designer, content manager) qualified to comply with the requirements of the terms of reference (please provide documented proof).		
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Preferred requirements	Compliance (YES/NO)	Please indicate the reference to the page and paragraph proving the compliance in your competitive bid
1. A portfolio of websites on medical nature (please list indicating their links).		
2. International experience of website and information portal development (please list and indicate their links/URL addresses).		
3. At least 2 websites developed on WordPress CMS (please list and indicate their links).		

## 2. Requirements to the Consultant's staff

To ensure implementation of the assignments the Consultant shall have a group of high qualification experts meeting the following requirements:

### Project Manager/Team Leader:

- university degree;
- experience in similar projects implementation – at least 5 years;
- experience in managing developer teams of 5-10 persons;
- knowledge of the most common development technology;
- experience in big information projects development – at least 5 projects;
- working knowledge of technical English.

### Software Developer

- higher technical education (software development, computer networks);
- knowledge of the most common development technology: PHP, HTML5, JavaScript, JQuery, JSON, CSS 3, WordPress API;

- knowledge of technologies and techniques of website/portal software engineering;
- at least 3 years of experience;
- knowledge of English sufficient to read technical documents.

Web Designer:

- university education;
- at least 3 years of experience in developing design of big information resources;
- deep knowledge and experience in web interfaces usability;
- experience in interface development for mobile devices for iOS, Android, etc.;
- working knowledge of technical English.

Content Manager:

- university degree;
- preferably with medical education, particularly in the field of cardiology;
- understanding of effective content writing principles;
- experience of effective content processes building;
- portfolio of completed projects in the field of medicine.

## **V. REPORTING REQUIREMENTS**

The Consultant shall submit Progress reports for Phase 1 to the Client not later than 5 calendar days after the date of completion of Phase 1.

The Consultant shall submit final report on the completion of the Website development not later than 10 days after completion of works in Phase 2. Mandatory element of the report is information about technical characteristics of the product, administration system, hosting, persons in charge and contact persons from the developer firm and other data as may be needed to the Client for autonomous servicing.

The Consultant shall submit to the Client quarterly reports on the support services provided during Phase 3.

Reporting shall be in Ukrainian in digital form and in hard copy.

## **VI. FACILITIES, SERVICES, AND STAFF TO BE PROVIDED BY THE CLIENT**

The Client shall timely provide the Consultant with regulated access to regulatory and legal documents, materials, instructions, etc., information systems and office facilities of the Client necessary to implement the Terms of Reference.

To ensure coordination and efficiency under the Contract the Client shall appoint the Coordinator from the Client.

When delivering services under the TOR, the Consultant shall cooperate with the following staff:

- IT Consultant of the sub-project *Increase the effectiveness of treatment and prevention of cardiovascular diseases in Rivne Region for the period of 2015-2020*;
- consultants appointed by ROSA Health Care Department;
- staff of Rivne Regional Health Care Center of Rivne Regional Council that will be granted permissions for the Website management and content creation after the expiration of the Contract;

## **VII. METHOD OF WORK**

It is expected that the Consultant shall provide its services during six (6) calendar months from June 2016 till November 2016 (Phases 1 and 2 of the Contract), and from November 2016 till December 2019 (Phase 3 of the Contract) or any other period agreed by the Parties in writing.



The Consultant shall be responsible for delivery of workplaces, where necessary, and any other resources, needed to render services specified in the Terms of Reference.

The Consultant shall be responsible for organizational and financial support necessary for the implementation of this Terms of Reference.

All the materials prepared by the Consultant shall be discussed in advance with and approved by specialists of the Client's relevant subdivisions.

#### **VIII. REQUIREMENTS FOR WEBSITE OWNERSHIP TRANSFER**

The Consultant shall transfer all intellectual property rights for the developed products to the Client, namely:

- text files;
- digital graphics images;
- modules developed for the Website;
- Website domain name and URL;
- hosting management system login credentials;
- Website CMS login credentials (in particular, Website administrator's user name and password);
- Google Analytics login credentials;

**Annex 1**  
to the Terms of Reference for consulting services on  
*Web Portal Development and Support*  
*Project Serving People, Improving Health,*  
World Bank Loan # 8475-UA

## 1. Website Access

This document describes three types of access to the website:

- anonymous (unregistered) visitor. Usually, this is a user from the general public using the Website to obtain information about CVD and their prevention, diagnosis, etc.;
  - registered visitor (authorized user) with permissions to access certain Website sections inaccessible to anonymous visitors, and/or certain sections (functions) for editing the Website materials (in this case, health care personnel);
  - registered visitor (administrator, editor) that has access to all Website sections and can perform administrative functions for the Website management.
- The Website shall provide grouping option for registered visitors. An authorized user can be a member of one or multiple groups. Access to the Website sections shall be allowed based on the authorized user's membership in a group.
  - The Website shall support self-initiated user registration of the members of health care personnel with mandatory moderation by the administrator. The user shall be required to provide the following information during registration

- full name, address, area of expertise, job title, email address, login, password
- Consent to personal data processing.

- The Website management system shall provide the option for the Website Editor to create new groups of authorized Website users and grant certain levels of group permissions with access to the Website sections.

## 2. Website Functionality Requirements

- The Website shall be created on a web-based dynamic content management system (hereinafter referred to as the System).
- The system shall be capable of performing the following functions:
  - to manage information structure;
  - to manage the appearance and content of the Website pages;
  - to manage interactive services (subscriptions, forums, surveys, etc.);
  - to manage data exchange with third-party databases and computer software.
- The system shall be capable of facilitating the following administering functions:
  - to quickly change the Website sections layout;
  - to edit the information content of the Website sections;
  - to provide automatic publishing of prepared materials in interlinked sections of the Website structure;

- to collect and process full statistics of Website traffic with breakdown by regions;
  - to organize interactive contact with the audience.
- The System's administrative interface shall be intuitive and user-friendly to basic-level visitors;
  - The System's administrative interface shall use standard file manager interface (folders, trees, etc.)
  - The System shall support the creation of any type of materials and modules in the administrator's interface.
  - System administration requirements:
    - remote administration of the Website resources;
    - the system shall be capable of deploying the Website technical complex at other hosting companies, provided that they meet the requirements of data security.

### 3. Website Language

The website must have multilingual support. The main language is Ukrainian with the support of the languages of national minorities, if necessary. The scope of information to be translated into other languages shall be determined in the decision of executive body.

### 4. Website URL

The Website URL shall be submitted for approval by the Client after the signing of the Contract and initiation of Website development. The name of the Website shall include such word forms as 'cardio', 'rivne' in either of the domain extensions «.ORG», «.RV.UA» or others.

### 5. Website Structure Sections "Public information" and "Information for health professionals".

During the first visit of the Website users and before the **Public information** section can be viewed, the presentation **Cardiovascular diseases made simple** shall be played automatically in full-screen or window-sized mode with the option to skip the playback. The positioning of modules in this section is indicated in Annex 2 of this ToR. Section **Information for health professionals** shall be accessible after logging in **via the Registration and Authorization module** or by clicking the **Information for health professionals** menu item in the Website main menu and authorization in the Main Content window. The positioning of modules in this section is indicated in Annex 3 of this ToR.

5.1 Section shall be the main Website structure element.

The Website structure shall have 3 (three) levels:

- Website homepage (layout and design are indicated in Annex 2 and Annex 3);
- Website Section page with direct links to web pages containing relevant information;
- web page containing relevant information (required by the user).

5.2 Website homepage and all Section pages shall have identical elements for quick Website navigation.

5.3 Each page of the Website shall belong to one or more Website sections.

5.4 Access permissions for individual Website sections and pages (including their functions) shall be differentiated, while section/page visibility shall be different based on the user category and/or authorized user's group membership.

5.5 Each Website section shall be available to one or more groups of authorized Website users and, if necessary, to anonymous (unregistered) visitors as well.

5.6 Depending on the user's (anonymous/registered user, group of authorized user) category and group, the web pages (functions) within the section that the user can access shall differ according to the user's permissions.

5.7 Website administration functions (operations), content management, Website content editing shall be realized via individual pages of the Website and exclusively available to certain groups of authorized Website users within sections and/or in the form of individual sections.

## 6. Website Design Requirements

6.1. Website graphic design shall conform to the recommendations and the subject matter of the Website.

6.2. The Client regards as consistent to follow the following principles while developing the Website design:

- preferably light color tones;
- light uniform background, preferably white;
- uncrowded user interface;
- fonts and graphic elements preferably red, black, aquamarine, gray with shades;
- animated graphics, logos and design shall match the subject matter of the Website;
- uniform display style for sections and individual web pages;
- preferable fonts: Arial and Tahoma;
- charset Windows-1251.

6.3. The Website design shall meet the following requirements:

- the Website shall not be overloaded with graphic elements;
- no text blending into the background;
- no blinking banners;
- user-friendly control elements and menus, transitions, clickthrough;
- readability and the appropriate style of information;
- Website main sections shall be accessible from the homepage;
- Website homepage shall not contain much textual information.

6.4. Website design approval.

- The Website design in this case means the unified style used for the appearance of all the pages of the Website, except for the admin area pages, and the positioning of content on the module pages of the Website.
- The design shall be provided in the form of one or multiple raster image files.
- The design proposed shall be reviewed within 10 days. It can be approved or sent back for rework along with the list of changes and fixes to be made so many times as it may be required. The first design samples with several different variants to choose from may be submitted for approval piece by piece. Alternatively, piecewise submission of design variants may be used to reduce the work of designers and decide upon the best variants for further design.

## 7. Website categories for information materials and the requirements for their display

7.1 The Website shall support the following types of information materials (modules):

- 7.1.1 **Information material (article, news post, post)**, a piece of material to be viewed online with the predefined term of validity assigned to a section and a category. Display requirements: a web page may contain images, videos, charts, graphics, simple tables, inks, and integrated **modules**. It may have an expiration date or no expiration date. It shall be created via the web-based editor. Information materials shall be managed via the admin interface (creation, search, publishing, unpublishing, deleting, editing, category and

section assignment, association with a module). There shall be "Print" page versions, a possibility to email pages, a comment section below the pages with the information materials. Posting of materials in social networks (Facebook, Google +, VK, Twitter). The title, keywords and description, and visitor categories shall be shown in the META section of the page.

- 7.1.2 **Logo/Website Title Module** Position in accordance with Annex 2 and Annex 3 or approved Website design. The logo and the corporate style shall be provided after their design and approval.
- 7.1.3 **Main Menu (horizontal) Module** Position in accordance with Annex 2 and Annex 3 or approved Website design. It shall contain links to the homepages of sections **Public information** and **Information for health professionals**. Additionally, there shall be a menu item to call the **Contacts** module and a menu item to display **About the Project** information.
- 7.1.4 **Website Search Module** Position in accordance with Annex 2 and Annex 3 or approved Website design. **Regular search:** The main page of the portal shall display the search form (a field to enter search phrase and the "Search" button). Search shall be made in all sections of the portal (by title and description) based on the user permissions. Search for documents shall be done by the title only. The summary of the viewable materials only that match the search terms shall be displayed in the **Main Content window** along with the link to the full version of the material. The materials found shall be displayed in blocks of 10 with block navigation above and below the module and block numbering.

**Advanced search:**

In addition to search phrase input fields, a user can choose sections and categories on the advanced search page:

- text pages (in title and text);
- posts (in title and text);
- categories;
- news (in title and text);
- in forums, threads, and posts (in titles and in text);
- in surveys (in title);
- in regulations and standards of care.

**and indicate the following criteria:**

- publication date;
- visitor's category.

**Search Results**

The search results list shall display the following information:

- type of section with the match found;
- publication title – a link to the post page;
- a small piece of text containing the search phrase.

The list shall display 10 results. If the total number of results exceeds 10 entries, the list of pages shall appear below the results list (page view). Search results shall be sorted by relevance.

- 7.1.5 **Main Content Window Module** Position in accordance with Annex 2 and Annex 3 or approved Website design. This module shall display the latest 10 (ten) news in short format with links to the full versions of news or content or module selected by the user.

- 7.1.6 **Side Menu (vertical, multiple levels) Module** Position and dimensions in accordance with Annex 2 and Annex 3 or approved Website design. **Website Side Menu** shall display dynamic content based on the Website section currently viewed by the user. The menu shall be dynamic and multilevel with the maximum depth of 3 levels. Menu layout shall be set via administrator interface. Secondary sections shall not display until selected by the user.
- 7.1.7 **Banner Module** Location and dimensions in accordance with Annex 2 or approved Website design. It shall be displayed in the **Public information** section only. It shall contain a set of graphic images that smoothly switch in a slide show. The default display time of one banner slide shall be 7 seconds (it shall be possible to change this parameter in the administrator area). The module shall contain the arrows on the left and on the right side of the slide for manual slide change (previous: an arrow or vertical stripe on the left side of the slide; next: an arrow or vertical stripe on the right side of the slide). When clicked, each slide shall load certain **Information materials** in the **Main Content window** or launch certain **modules**. It shall be possible to adjust the settings of the module in the administration interface with the option to indicate the number of slides, to upload and select slides, and to associate **information materials** or other available **modules**.
- 7.1.8 **Contacts Module** Location and dimensions in accordance with Annex 2 and Annex 3 or approved Website design. It shall contain project staff contact information (contact persons' full names, emails, phone numbers, links to other websites associated with the Project) and a contact form with CAPTCHA. It shall be possible to adjust the contact form target email and the settings for sending emails from the Website in the administration interface. The contact form may be used to contact the portal administrator. To contact the administration, a visitor must fill in the following form:
- first name (required);
  - last name (required);
  - patronymic name;
  - email (required);
  - contact phone number (required);
  - subject (the recipient);
  - message type (suggestion, material, message, comment or question);
  - message text (required);
- Information about each request shall be emailed to the visitors email address and the address indicated in the admin panel. All requests shall also be stored in the database with the assignment of unique identifiers in the administration interface (requests IDs).
- 7.1.9 **Breadcrumbs Module** Location in accordance with Annex 2 and Annex 3 or approved Website design. The full path to this document with the indication of intermediate sections and categories shall be displayed.
- 7.1.10 **Surveys Module** Location in accordance with Annex 2 and Annex 3 or approved Website design. The module shall display the Question and a number of answer options to choose from. The choice shall be saved after clicking the Submit button. It shall be possible to adjust the settings of Surveys via a separate module in the administration interface. After voting, users can view the survey results (number of votes for each answer). Surveys shall be assigned to sections **Public information** and **Information for health professionals** independently. The module shall display if there are active surveys. Each visitor may participate in the survey only once. Information about participation in the survey for visitors shall be stored in cookies, similar information for users shall be stored in the database. Surveys can be of two types: with one possible answer; with multiple possible answers.

In addition, the Website shall provide a possibility to see previously conducted surveys. The page with a list of surveys shall display the following information: name of the survey; period of the survey; survey results.

The list shall display 10 surveys. If the total number exceeds 10 surveys, the list of pages shall appear below the surveys list (page view). The surveys listed shall be sorted by date in the reverse order.

- 7.1.11 **Professional Calendar Module** Position in accordance with Annex 3 or approved Website design. The current month in the form of the month calendar shall be displayed with dates and arrows to switch the month displayed on the calendar. The calendar shall highlight the dates with events using different colors and fonts. A summary of 3 upcoming events after the current date with the links to the full description of the selected event shall be displayed below the calendar. In addition, 'All events' link to display the events in the current month in the **Main Content window** shall be present.
- 7.1.12 **News Module.** Position in accordance with Annex 2 and Annex 3 or approved Website design. This module is used to display materials (posts) in the Main Content window based on the current section. It shall be possible to integrate materials from social networks, mass media and other open sources.
- 7.1.13 **Useful Links Module** Position in accordance with Annex 3 or approved Website design. The module shall display 5 most recent links that can be opened in a new window when clicked. In addition, there shall be a link to open the full list of useful links in the **Main Content window**. Information input for this module shall be carried out in a dedicated module of the **Administration interface**.
- 7.1.14 **Full Screen Presentations module** The module shall be called up by clicking the links used to launch the playback of the presentation. It shall be possible to switch slides using the built-in, user-friendly interface. The settings shall be adjustable in the administration interface. It shall be made possible to create and save multiple presentations with different materials and link them both to text and graphic resources. A presentation editor shall be developed for creating presentations in the administration interface. Presentations may include backgrounds, graphic objects, texts, audio and video materials.
- 7.1.15 **Health Care Center Rating Module.** When the **Health care center evaluation form** module is called, it shall be displayed in the **Main Content window** with the layout indicated in Annex 3.
- 7.1.16 **Patient's Roadmap Module** Location in accordance with Annex 2. It shall display information materials in the **Main Content window** with the approved form of the **Patient's Roadmap**.
- 7.1.17 **Registration and Authorization Module** Location in accordance with Annex 2 and Annex 3 or approved Website design. By default, the module shall display an invitation to log in to the Website. Once the user credentials have been verified, provided that the user is authorized and identified, they shall be redirected to the **Information for health professionals** section, and the module view shall change accordingly. Module design variants are available in **Annex 4**. If the user is not identified, they shall be redirected to the page where they can register or retrieve the access credentials. During registration, the visitor shall be required to enter their user name, the institution the user works for, specialty field, position, email, login, password, and grant consent to personal data processing. Access credentials recovery shall be carried out based on the user's email address by sending the lost credentials to their email address. Registered users can manage the settings of forum notifications. In addition, all forms on the Website shall automatically display authorized user's contact information (name, email, etc.) for the relevant user.

To avoid form filling by robot programs, a verification code shall be used a field shall be added to the form where the user is required to type a set of letters and numbers shown

in the picture (the picture with numbers and letters shall change every time a user fills out a form).

### **Registration process**

After a user clicks "Register", the submitted data shall be reviewed by the administrator. If the user appears to be a staff member of a health care institution of the region, a letter containing the link to activate the user account shall be sent to the specified email. If some fields are blank or filled incorrectly, the registration shall fail, and the visitor shall be shown the relevant error message.

The password shall be stored in encrypted form.

### **Completion of registration**

After the registration is complete, a message with the instructions on his/her card activation (a link to go) shall be sent to the visitor's email address. After the card has been activated, the visitor shall be able to pass authentication and authorization on the website.

### **Password Recovery form**

Password recovery form shall display the following:

- email address <text box, required field>.

### **Password recovery**

After a user clicks "OK", the email address indicated shall be verified. If that email address is registered in the portal users database, an email with the subject "Confirmation of your password recovery" with relevant content shall be sent to this address:

Once a visitor goes to the page by clicking to the link specified in the text message, the new password will be generated and sent in another email

Should the email address entered be not found in the user database, the visitor shall be notified of error.

- 7.1.18 **CVD Risk Evaluation module.** An interactive SCORE-based page for evaluating CVD risks among general public shall be developed. A visitor shall be able to provide their own health parameters using which the page shall generate and display the risk of CVD along with recommendations for prevention.
- 7.1.19 **Website Developers and Copyright Module** Position in accordance with Annex 2 and Annex 3 or approved Website design. It shall contain information about the developer and copyright. This module place shall include information about the Statistics module operation.
- 7.1.20 **Statistics Module** The statistics modules shall be developed on the basis of Google Analytics. It shall be built into the Website structure to determine the most popular materials and the total number of visitors (broken down by Ukraine and Rivne region (with detailed statistics by the districts of the region)).
- 7.1.21 **Ad Block Module** Location in accordance with Annex 2 and Annex 3 or approved Website design. It shall include texts and graphic elements with the size defined in the administration interface, and links to the associated websites used to promote the Website.
- 7.1.22 **Forum Module**

Forum shall facilitate exchange of opinions among users (specialists, members of health care personnel and administrative staff) discussing the information required for the effective professionals' work and training, etc.

### **Forum Homepage**

The homepage shall display the list of forums and three most recent threads within each forum (subject matters, themes). The following data shall display:



- forum header: a link to forum page;
- total number of posts and number of posts for today;
- three most recent forum threads (header, date of the last post and the number of posts within the thread).

### **Forum Page**

The forum page shall display this forum's threads. The following data for each thread shall display:

- thread header – a link to the thread view page;
- total number of posts in the thread;
- information about the most recent post in the thread (author, date of the post).

The forum page shall display 10 threads. If the total number exceeds 10 threads, the list of pages shall appear below the threads list (page view).

The threads listed shall be sorted by the date of the last post in the reverse order.

In addition, every authorized user can create a new thread or subscribe to notifications about new forum posts on the forum page.

The page shall also contain navigation elements like "breadcrumbs (breadcrumb trail)" and the link to the web page with a list of forums.

### **Creation of a Thread**

Thread creation form shall include the following fields:

- thread title;
- post.

When creating a new post, every authorized user can subscribe to notifications about new replies to his/her post or to new posts in the thread.

Post text may contain so-called BB-codes (special codes that allow users to style the posts to be shown on the website). The following BB-codes are available:

- [b]bold text[/b] – bold text;
- [i]italic text[/i] – italic text;
- [url=http://some.site.com]link[/url] – link;
- [email=friend@forum.com]email link[/email] – email.

The new thread shall immediately appear on the portal. In addition, a notification about the creation of a new thread shall be emailed, and the indication of this fact shall appear in the admin panel.

### **Thread Page**

A list of posts shall be displayed on a separate thread view page of the forum. Each post shall be supplemented with the following information:

- post author – author's email link;
- post date and time;
- associated post (if the post is a reply to another post);
- the link to reply to the post;
- post.

The thread page shall display 10 posts. If the total number exceeds 10 posts, the list of pages shall appear below the posts list (page view).

Posts in the list shall be sorted by the date in reverse order.

In addition, every authorized user can create a new post or subscribe to notifications about new thread posts on the thread page.

The page shall also contain navigation elements like "breadcrumbs (breadcrumb trail)" and the link to the web page with a list of threads within the chosen forum.

### Creation of a Post

The new post creation form shall include the following fields:

- information about the post to be replied – author's name and post text (if the post is a reply to another post);
- post.

When creating a new post, each authorized user can subscribe to notifications about new replies to his/her post or to new posts in the thread.

Post text may contain BB-codes.

The new post shall appear immediately. In addition, a notification about the creation of a new post shall be emailed, and the indication of this fact shall appear in the admin panel.

- 7.2 The Website shall include the categories of information materials (for the **Public information** section) designed using the same style and unified requirements, they shall have a predefined term of validity and be intended for visual browsing. The side menu settings shall be adjustable in the administration interface.

The posts on the Website shall be grouped into categories. Categories can have up to two levels of nesting. If a category has nested subcategories, such a category shall not include publications. Each top-level category can be used as an individual menu item. If the chosen category uses a date, the posts in the list shall be sorted by date in reverse order. Otherwise, publications shall be sorted by the creation date and in reverse order as well.

### Viewing the List of Posts

The list of posts may be accessed from the side menu of the section. Posts shall be linked to categories. Each post in the list shall be supplemented with the following information:

- header – a link to the page to view the post;
- date (if applicable for the selected post category);
- image (if uploaded);
- post summary.

The list shall display 10 publications. If the total number exceeds 10 posts, the list of pages shall appear below the posts list (page view).

- 7.2.1 **News** The **Main Content window** shall display the titles of 10 information materials along with short descriptions and links to full materials based on the current Website section.
- 7.2.2 **Cardiovascular diseases (CAD; idiopathic hypertension; central nervous diseases; heart rhythm disorder; cardiac myopathy; RHD; cardiac anomalies; aortic pathology; other CVDs)** If required, the menu shall be expandable along with the display of the information material category summary in the **Main Content window**. 2 and 3 level menu items shall be referred to in **Annex 2**.
- 7.2.3 **Risk Factors (smoking; overweight; cholesterol level; diabetes; complex medical history)** If required, the menu shall be expandable along with the display of the information material category summary in the **Main Content window**. 2 and 3 level menu items shall be referred to in **Annex 2**.

- 7.2.4 **Risk evaluation.** The module shall be launched in the Main Content window for **SCORE**-based evaluation of CVD risks among general public.
- 7.2.5 **Prevention. ( - Primary (healthy lifestyle; return to normal weight; work/rest schedule compliance) - Secondary (drug therapy; cardiological supervision at place of residence))** If required, the menu shall be expandable along with the display of the information material category summary in the **Main Content window**. 2 and 3 level menu items shall be referred to in **Annex 2**.
- 7.2.6 **Roadmap** Module launch and operation.
- 7.2.7 **Rate your health care center** Module launch and operation.
- 7.2.8 **Cardiovascular diseases made simple (presentation).** The developed presentation shall be played in the **Full Screen Presentations** module
- 7.3 The Website shall include the categories of information materials (for the **Information for health professionals** section) designed using the same style and unified requirements, they shall have a predefined term of validity and be intended for visual browsing. If required, the menu shall be expandable along with the display of the information material category summary in the **Main Content window**. The side menu settings shall be adjustable in the administration interface. The following dynamic menu shall be created:
- 7.3.1 **News** (a list of news within the given section shall be displayed in the **Main Content window** along with the links to the full version of the news posts;
- 7.3.2 **Cardiovascular diseases (ICD 10** - the form shall be displayed when the title is clicked, it shall allow the conditions dictionary search and display the summary of the selected disease to the doctor; **CAD; idiopathic hypertension; emergencies**);
- 7.3.3 **Diagnostics (ICD 10** - the form shall be displayed when the title is clicked, it shall allow the conditions dictionary search and display the summary of the selected disease diagnostics to the doctor; Blood pressure measuring; ECG; Holter monitoring (+ with ABP); Doppler echocardiography, Stress echocardiography; IV-CCT; angiographic studies; cycle ergometry; TMT; Drug provocation tests; Transesophageal echocardiography; Three-projection CXR);
- 7.3.4 **Standards of care** (the protocols of care and checkup shall be displayed in the **Main Content window**);
- 7.3.5 **Regulations** (the regulatory framework shall be displayed in the **Main Content window**);
- 7.3.6 **Prevention (coronary artery disease; idiopathic hypertension; sudden cardiac death; cardiac failure; cerebral circulation disorders prevention)**;
- 7.3.7 **Forum** (The Forum module shall launch to facilitate communication between authorized users (health care professionals), sections and topics will be provided later).
- 7.4 The Website Content Management System shall allow the creation (extension of the list) of information material categories and the creation of individual styles for each new category based on the styles already available on the Website.

## 8. Administration

Website administration system shall facilitate the following functions performed by a person with average computer skills:

- adding, editing and deleting any page of the website;
- management of Website modules positioning and visibility, the input of data into them, management of module information display settings;
- editing the sequence and grouping of the website menu.

Batch operations in the administrator's interface while working on the content and setting up modules. Monitoring of unskilled users (moderation of actions that can lead to data loss or damage to the Website structure).

On the other hand, a person with professional skills shall be enabled to:

- add, delete, edit user profile, reset user password, change his/her rights in the website administration system;
- add, delete or edit the page template based on the parameters of the information unit or group;
- edit source code of any page.

The mandatory requirement is a web editor (with MS Word-like interface). The web editor shall meet the following requirements:

- the possibility of preliminary materials preparation by means of other tools with their subsequent transfer to the Website;
- stylesheet support;
- the availability of tools for source code optimization;
- the possibility to use images in posts (uploading into a specific folder, pasting into the editor, formatting);
- the possibility to use audio objects in posts (uploading into a specific folder, placing into the text on the page along with playback controls (play, volume, duration indicator), deleting);
- the possibility to upload certain types of materials (audio, video or presentations);
- the possibility to integrate video files into posts (uploading to the Website, placing into the text on the page along with playback controls (play, volume, duration indicator, pause));
- the possibility to integrate video files from [www.youtube.com](http://www.youtube.com) into posts/pages along with the interface elements of the standard video player of [www.youtube.com](http://www.youtube.com);
- table support;
- the availability of text formatting tools;
- the availability of listing tools;
- the possibility to link other documents;
- logging and versioning;
- support text search;
- the possibility to work both in visual mode, and using HTML code.

All add-ons used on the Website shall be: free of charge, cross-platform, cross-browser and with full documentation support.

To ensure easy and fast promotion of the Website in search engines, the system shall guarantee the following minimum conditions: friendly URLs (use of Latin script names of categories, sections, etc. in the webpage URLs); meta tags editor; use of standard headers and highlight tags.

Content Management System interface shall be intuitive, easy to use and quite fast.

Template management algorithm in the website management system shall be clearly described.

Content Management System shall provide flexible system for menu configuration and expand the menu automatically. In addition the following mechanisms shall be envisaged:

- creation of website backups;
- pages may be displayed in the menu only after they have been "published";
- it shall be possible to view pages before "publication";
- it shall be possible to register creation and edit dates of pages, and view the users that performed such actions;
- logging of user access to the website management system;

8.1. Website administration systems shall have three levels. Website administration and content management shall be provided by the following categories of authorized users:

- Administrator
- Editor
- Contributor.

8.1.1. Website Administrator shall be allowed to perform the following actions during Website operation:

- creation of new/restructuring of the existing Website sections at the request of the Website Editor;
- dealing with routine maintenance of the Website software and hardware in cooperation with the Consultant;
- changing of the Website design and structure within the scope of the web interface at the request of the Website Editor;
- conducting of regular backup of the Website software and content.

8.1.2. Website Editor shall be allowed to perform the following actions during Website operation:

- creation of the Website content and its placement in certain Website sections
- preparation of webpages of certain category and style for publication, adding of support materials and files by means of the Website origination and editing tools;
- viewing of the queue of content submitted by the users authorized on the Website. He/she shall be allowed to select the content from the queue, moderate it, edit its text if necessary, determine the category based on his/her privileges and/or access permissions;
- approval of the processed material. If the content has been approved by the Website Editor, the material shall be published immediately in the Website sections with the post access permissions of visitors (users) set by the Editor or delayed up to the predefined point in time;
- reception of registration requests from users. He/she shall be allowed to validate them, and make either of the following decisions:
  - register the user and grant him/her certain permissions (membership in one or more groups of authorized users), and create the corresponding account with the user information;
  - reject the registration and send a message with the reasons for the rejection to the applicant's email.

8.1.3. Website Contributors shall be allowed to perform the following actions during Website operation:

- submit their content to be published in a certain Website section after its creation in the web editor;
- submit notices of events to be included into the Professional Calendar via the contact form.

8.2. Authorized Website users shall be allowed to change their passwords used to access the Website only via a HTTPS connection.

8.3. Administrator shall have access to the following sections:

- authorization;
- administrator account management;
- text pages/materials management;
- posts management;
- News module management;
- main menu management;

- section Side Menu management based on users' category and the active section;
- banner management;
- full screen presentations module management;
- Professional Calendar module and content management;
- survey management;
- Health Care Center Rating module management and statistics reports;
- Patient's Roadmap module and its content management;
- CVD Risk Evaluation module management;
- Contacts module and Contact form requests management;
- administrators and users management;
- website settings management;
- service modules management;
- Useful Links module settings and content management;
- forum management;
- Ad Block module management

#### 8.3.1 authorization

Authorization form. The administration section shall be accessible via a login from at <http://%site%/admin>. The authorization form shall display the following fields: login; password. "Enter" button shall be located below the form.

#### 8.3.2 administrator profile management;

Administrators shall be able to change their profile information. The authorization form shall display the following fields: login; name; email address.

To change the password, the administrator shall be required to fill in the following fields: current password; new password; confirm password. If the form is filled out correctly, the password used to access the admin section will be changed, and a new password will be required next time during authorization.

#### 8.3.3 text pages, materials and posts management.

Viewing the list of text pages, materials and posts. The page shall display a list of text pages, materials and posts. The list shall display the following fields:

- ID;
- header;
- section;
- path;
- category;
- status.

Pages in the list can be sorted by the following fields:

- ID;
- header;
- path.

Sorting shall be carried out by clicking the link next to the field to be sorted by. Links are arrow images. The direction of the arrow indicates the order of sorting.

The user shall also be able to filter the pages in question using the following parameters.

- ID (text field);
- title (text field);
- section (website list).

Filtering shall be done by clicking the "Filter" button. The filter can be canceled via the "Cancel the filter" button.

Each page shall display the following links:

- Change status (changes the page status to opposite);
- Edit (jumps to the page editing form);
- Delete (deletion after confirmation).

The "Create Page" button is located above the list of pages.

A check box used to mark the page for deletion shall be displayed next to each page. The "Delete" button that allows users to delete the pages marked for deletion shall be located below the list of pages. Deletion shall be accomplished after confirmation.

The number of listed pages shall be limited by the "Limit" value in the list. If the limit has been changed, the page with the list shall be updated. If the number of list items exceeds the limit, a link to view the items exceeding the limit shall be displayed under the list (page view).

#### Creating and editing text pages

The form for creating text pages shall contain the following fields:

- status (flag);
- title (text field);
- path (text field);
- content (WYSIWYG-editor);
- META header (text field);
- META keywords (text field);
- META description (text field);
- useful links section to internal resources of the website (posts, news, pages, laws and regulations, etc.). (internal linker)
- visitor category (directory, multiple selection).

"Save" and "Save and exit" buttons shall be placed below the form. By clicking "Save", the page shall be saved and reopened for editing, while the "Save and exit" button shall save the page and then open a page with a list of pages.

#### 8.3.4 posts management;

##### Viewing the list of post categories

The page shall display a list of post categories. The list shall display the following fields:

- ID;
- category title;
- parent category;
- path;
- number of posts;
- status.

It shall be possible to sort the categories in the list by the following fields:

- ID;
- category title;
- path.

Sorting shall be carried out by clicking the link next to the field to be sorted by. Links are arrow images. The direction of the arrow indicates the order of sorting.

The user shall also be able to filter the pages in question using the following parameters.

- ID (text field);
- category name (text field);
- parent category (list of categories);
- path (text field).

Filtering shall be done by clicking the "Filter" button. The filter can be canceled via the "Cancel the filter" button.

Each category shall display the following links:

- Change status (changes the category status to opposite);
- Edit (jumps to the category editing form);
- View linked posts (jumps to the list of posts);
- Delete (deletion after confirmation).

The "Create category" button is located above the list of categories.

A check box used to mark the category for deletion shall be displayed next to each category. The "Delete" button that allows users to delete the categories marked for deletion shall be located below the list of categories. Deletion shall be accomplished after confirmation.

The number of listed categories shall be limited by the "Limit" value in the list. If the limit has been changed, the page with the list shall be updated. If the number of list items exceeds the limit, a link to view the items exceeding the limit shall be displayed under the list (page view).

#### Creating and editing categories

The form for creating categories shall contain the following fields:

- status (flag);
- use date in posts (check);
- name (text field);
- path (text field);
- parent category.

"Save" and "Save and exit" buttons shall be placed below the form. By clicking "Save", the category shall be saved and reopened for editing, while the "Save and exit" button shall save the category and then open a page with a list of categories.

#### Viewing the List of Posts

The page shall display a list of posts. The list shall display the following fields:

- ID;
- image;
- header;
- parent category;
- publication date;
- path;
- status.

It shall be possible to sort the posts in the list by the following fields:

- ID;
- header;
- publication date;
- path.

Sorting shall be carried out by clicking the link next to the field to be sorted by. Links are arrow images. The direction of the arrow indicates the order of sorting.

The user shall also be able to filter the posts in question using the following parameters.

- ID (text field);
- title (text field);
- parent category (list of categories);
- publication date (date range);
- path (text field).

Filtering shall be done by clicking the "Filter" button. The filter can be canceled via the "Cancel the filter" button.

Each post shall display the following links:

- Change status (changes the post status to opposite);
- Edit (jumps to the post editing form);
- Delete (deletion after confirmation).

The "Create post" button is located above the list of posts.

A check box used to mark the post for deletion shall be displayed next to each post. The "Delete" button that allows users to delete the posts marked for deletion shall be located below the list of posts. Deletion shall be accomplished after confirmation.

The number of listed posts shall be limited by the "Limit" value in the list. If the limit has been changed, the page with the list shall be updated. If the number of list items exceeds the limit, a link to view the items exceeding the limit shall be displayed under the list (page view).

#### Creating and editing posts

The form for creating posts shall contain the following fields:

- status (flag);
- title (text field);
- parent category (list of categories);
- date;
- path (text field);
- content (WYSIWYG-editor);
- META header (text field);
- META keywords (text field);
- META description (text field);



- pictures (a number of image files; optional; one of the pictures can be featured in the post);
- videos (multiple FLV files or video spot codes from video hosting website);
- useful links section to internal resources of the website (posts, news, pages, laws and regulations, etc.). (internal linker)
- visitor category (directory, multiple selection).

"Save" and "Save and exit" buttons shall be placed below the form. By clicking "Save", the post shall be saved and reopened for editing, while the "Save and exit" button shall save the post and then open a page with a list of posts.

If the post has uploaded pictures, their downscaled versions are displayed in the editing form. Photos can be reordered using numerical codes. A check box used to mark the picture for deletion shall be displayed under each picture. Deletion of pictures shall be accomplished while saving the post. In addition, one of the pictures can be featured in the post (if no pictures are featured, the first pictures shall be used as the featured one).

If the post has uploaded videos, their list shall be displayed in the editing form. Videos can be reordered using numerical codes. A check box used to mark the video for deletion shall be displayed under each video. Deletion of videos shall be accomplished while saving the post.

"Save" and "Save and exit" buttons shall be placed below the form. By clicking "Save", the post shall be saved and reopened for editing, while the "Save and exit" button shall save the post and then open a page with a list of posts.

#### 8.3.5 News

Viewing the list of news

The page shall display a list of news. The list shall display the following fields:

- ID;
- section;
- image;
- title;
- date;
- path;
- status.

It shall be possible to sort the news in the list by the following fields:

- ID;
- section;
- title;
- date;
- path.

Sorting shall be carried out by clicking the link next to the field to be sorted by. Links are arrow images. The direction of the arrow indicates the order of sorting.

The user shall also be able to filter the news in question using the following parameters.

- ID (text field);
- title (text field);
- section (list of sections);
- date (date range);
- website (website list).
- path (text field).

Filtering shall be done by clicking the "Filter" button. The filter can be canceled via the "Cancel the filter" button.

Each news post shall display the following links:

- Change status (changes the news status to opposite);
- Edit (jumps to the news editing form);
- Delete (deletion after confirmation).

The "Create news post" button is located above the list of news. A check box used to mark the news for deletion shall be displayed next to each news post. The "Delete" button that allows users to delete news posts marked for deletion shall be located below the list of news. Deletion shall be accomplished after confirmation.

The number of listed news shall be limited by the "Limit" value in the list. If the limit has been changed, the page with the list shall be updated. If the number of list items exceeds the limit, a link to view the items exceeding the limit shall be displayed under the list (page view).

Main page news are assigned by the administrator by checking a check box next each news post. If the box is checked, the news post shall appear in the news block on the portal.

#### Creating and editing news

The form for creating news shall contain the following fields:

- status (flag);
- title (text field);
- section (list of sections);
- date;
- path (text field);
- content (WYSIWYG-editor);
- META header (text field);
- META keywords (text field);
- META description (text field);
- image (image file upload);
- show on the main page (check box);
- useful links section to internal resources of the website (publications, news, pages, etc.).
- visitor category (directory, multiple selection).

"Save" and "Save and exit" buttons shall be placed below the form. By clicking "Save", the news post shall be saved and reopened for editing, while the "Save and exit" button shall save the news post and then open a page with a list of news posts.

If the post has uploaded images, their downscaled versions are displayed in the editing form. A check box used to mark the image for deletion shall be displayed under each image. Deletion of images shall be accomplished while saving the news post.

"Save" and "Save and exit" buttons shall be placed below the form. By clicking "Save", the news post shall be saved and reopened for editing, while the "Save and exit" button shall save the news post and then open a page with a list of news posts.

In addition, mechanisms for posting news on the portal with their actual date and time shall be developed.

There shall be the possibility to use images from the website archive library instead of their re-upload. When the administrator tries to delete a file from the library, a report shall be generated whether the image is used in other news.

#### 8.3.6 Main Menu management

##### Viewing a list of the main menu items

The page shall show a list of the main menu items. The list shall display the following fields:

- ID;
- name;
- type;
- name of section/category/page;
- sort order (text field);
- status.

It shall be possible to sort the listed menu items by the following fields:

- ID;
- name;
- sort order.

Sorting shall be carried out by clicking the link next to the field to be sorted by. Links are arrow images. The direction of the arrow indicates the order of sorting.

The user shall also be able to filter menu items in question using the following parameters.

- ID (text field);
- name (text field);
- type (list).

Filtering shall be done by clicking the "Filter" button. The filter can be canceled via the "Cancel the filter" button.

Each menu item shall display the following links:

- Change status (changes the menu item status to opposite);
- Edit (jumps to the menu item editing form);
- Delete (deletion after confirmation).

The "Create menu item" button is located above the list of menu items.

A check box used to mark the menu items for deletion shall be displayed next to each menu item. The "Delete" button that allows users to delete menu items marked for deletion shall be located below the list of menu items. Deletion shall be accomplished after confirmation.

In addition, the "Apply" button shall be displayed below the list of the main menu items that allows users to change the sort order of the menu items. Text boxes of the "sort order" column in this case shall have numeric values. The main menu items sort order on the Website shall depend on the values in the relevant field.

The number of menu items shall be limited by the "Limit" value in the list. If the limit has been changed, the page with the list shall be updated. If the number of list items exceeds the limit, a link to view the items exceeding the limit shall be displayed under the list (page view).

#### Creating and editing menu items

The form for creating menu items shall contain the following fields:

- status (flag);
- name (text field);
- type (list);
- page (required if the type is page);
- section (required if the type is section);
- category (required if the type is posts, photo galleries, video galleries or uploadable files);
- link (required if the type is link);
- sort order (text field).

"Save" and "Save and exit" buttons shall be placed below the form. By clicking "Save", the menu item shall be saved and reopened for editing, while the "Save and exit" button shall save the menu item and then open a page with a list of menu items.

#### 8.3.7 section Side Menu management based on users' category and the active section;

Viewing a list of the side menu items

The page shall show a list of the side menu items. The list shall display the following fields:

- ID;
- name;
- type;
- name of section/category/page;
- sort order (text field);
- status.

It shall be possible to sort the listed menu items by the following fields:

- ID;
- name;
- sort order

Sorting shall be carried out by clicking the link next to the field to be sorted by. Links are arrow images. The direction of the arrow indicates the order of sorting.

The user shall also be able to filter menu items in question using the following parameters.

- ID (text field);
- name (text field);
- type (list).

Filtering shall be done by clicking the "Filter" button. The filter can be canceled via the "Cancel the filter" button.

Each menu item shall display the following links:

- Change status (changes the menu item status to opposite);
- Edit (jumps to the menu item editing form);

- Delete (deletion after confirmation).

The "Create menu item" button is located above the list of menu items.

A check box used to mark the menu items for deletion shall be displayed next to each menu item. The "Delete" button that allows users to delete menu items marked for deletion shall be located below the list of menu items. Deletion shall be accomplished after confirmation.

In addition, the "Apply" button shall be displayed below the list of the main menu items that allows users to change the sort order of the menu items. Text boxes of the "sort order" column in this case shall have numeric values. The main menu items sort order on the Website shall depend on the values in the relevant field.

The number of menu items shall be limited by the "Limit" value in the list. If the limit has been changed, the page with the list shall be updated. If the number of list items exceeds the limit, a link to view the items exceeding the limit shall be displayed under the list (page view).

#### Creating and editing menu items

The form for creating menu items shall contain the following fields:

- status (flag);
- name (text field);
- section (list of sections);
- page (required if the type is page);
- section (required if the type is section);
- category (required if the type is posts, photo galleries, video galleries or uploadable files);
- link (required if the type is link);
- sort order (text field).

"Save" and "Save and exit" buttons shall be placed below the form. By clicking "Save", the menu item shall be saved and reopened for editing, while the "Save and exit" button shall save the menu item and then open a page with a list of menu items.

#### 8.3.8 banner management;

It shall be possible to select settings (position, banner size, single block display time, the number of blocks, automatic switching, manual control, navigation points display, manual control arrows display, effects settings, etc.), upload graphic objects and match them with text materials, launch modules, perform other actions.

It shall be possible to edit the banner rotator.

#### 8.3.9 full screen presentations module management;

It shall be possible to create, edit, delete multiple materials on different subjects, adjust the display settings of each of them when the module is launched (full screen or in content window, available controls, automatic playback, block or presentation element display time, etc.), there shall be a presentations editor. It shall be possible to include graphic objects, videos and audio, etc. into presentations.

#### 8.3.10 Professional Calendar module and content management;

It shall be possible to enter, edit, delete information about events and text material reference.

#### 8.3.11 survey management;

##### Survey list

The list shall display the following information: section, type of survey, survey question, the number of options, the number of survey participants, current status of the survey (active or not). Each survey shall display the following links: edit, delete. Only one survey may be active for a site.

##### Creating a survey

The following fields shall be required to be filled: survey question, survey type, answer options, survey status. If the survey is marked as active, all other surveys for the same section become inactive.

##### Editing the survey

Administrator can change the survey questions, answer options or survey results (the number of votes for any of the answers).

Deleting the survey

Survey deletion shall require the approval by the administrator.

All surveys statistics shall be displayed.

8.3.12 Health Care Center Rating module management and statistics reports;

The module shall provide statistics on the surveys carried out among the general public to evaluate health care institutions of the region. Information about the institutions shall be retrieved from home directories. It shall be possible to export the results for the period into a XML or CSV file.

8.3.13 Patient's Roadmap module and its content management;

The module may be created in the form of a full screen presentation of materials entered in the module.

8.3.14 CVD Risk Evaluation module management;

The module shall provide statistics on the CVD risk prognosis carried out in the region. It shall be possible to export the results for the period into a XML or CSV file.

8.3.15 Contacts module and Contact form requests management;

The Website administrator shall be authorized to view the messages received and assign them to persons in charge and set the control deadline for response.

8.3.16 administrators and users management;

This page shall display a list of portal administrators and users. The list shall display the following information: login; name; email address, user group. A user can create, edit or delete administrators and users in this section. Also, the user may allow or block access to the admin section or change the access group

8.3.17 website settings management;

The page shall display a list of Website settings. The required configuration shall be formed in the process of the Website development (e.g. email for notifications about new forum posts). There may be the following types of settings:

- check box;
- text box;
- text area.

8.3.18 service modules management;

Management of modules required for website development and operation

8.3.19 Useful Links module settings and content management;

The module shall be used to enter useful links for users along with the name of the resource, link, description (settings: the number of visible links, short description, pop-up text, link target (new window, new tab, same window), etc.). Links management (deletion, editing, creation)

8.3.20 forum management;

In this section, the administrator can manage forums, threads and posts within the Forum module.

The forums list shall display the following information: website, forum title, path. The administrator shall be able to create, edit or delete forums. It shall be impossible to delete a forum with the threads linked to it.

The threads list shall display the following information: website, forum, thread title, author. The administrator shall be able to create, edit or delete threads. It shall be impossible to delete a thread with the posts linked to it. In addition, the administrator shall be able to hide threads created by the portal users.

The posts list shall display the following information: website, forum, thread, post, author, date. The administrator shall be able to create, edit or delete posts. In addition, the administrator shall be able to hide posts created by the portal users.

8.3.21 Ad Block module management

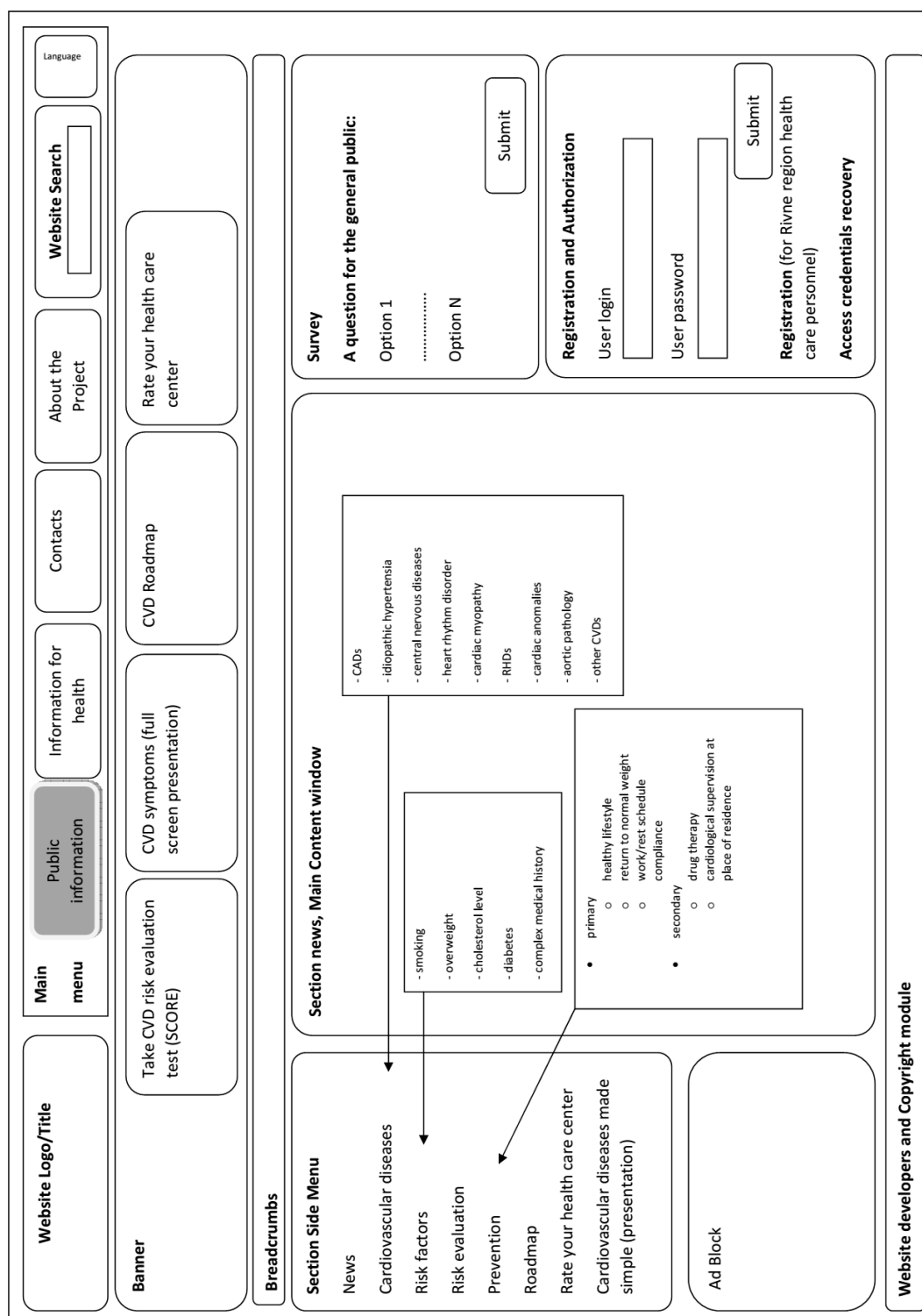
In this section, the administrator can manage banner ads on the portal. The following information shall be indicated for each banner:

- date;

- banner image;
- URL/link (may be either internal or external).

**Annex 2**  
to the Terms of Reference for consulting services on  
*Web Portal Development and Support*  
Project *Serving People, Improving Health*,  
World Bank Loan # 8475-UA

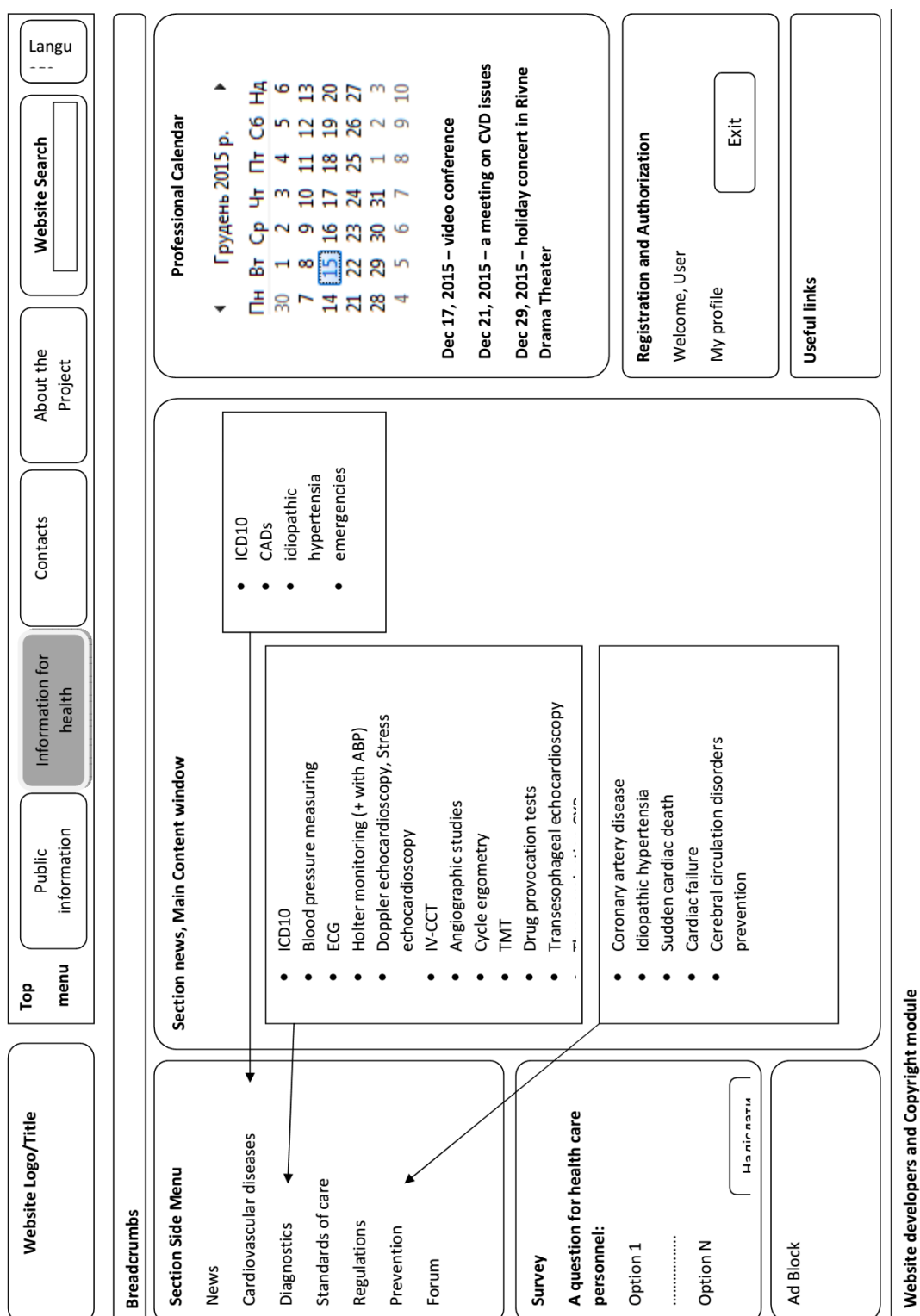
**Rough module layout on the main page of the "Public information" section**



**Annex 3**

to the Terms of Reference for consulting services on  
*Web Portal Development and Support*  
 Project *Serving People, Improving Health*,  
 World Bank Loan # 8475-UA

**Rough module layout on the main page of the "Information for health professionals" section**





**Annex 4**  
to the Terms of Reference for consulting services on  
*Web Portal Development and Support*  
*Project Serving People, Improving Health,*  
World Bank Loan # 8475-UA

**Annex 3.**

**Health Care Center Evaluation Form**

The form is contained within a rounded rectangle and includes the following elements:

- Select your city/town or district:** A text input field with the placeholder "District/city/town" and a downward arrow icon.
- Select your Primary Health Care Center:** A text input field with the placeholder "PHCC" and a downward arrow icon.
- Select your health care center:** A text input field with the placeholder "HCC" and a downward arrow icon.
- Please EVALUATE your Health Care Center and its personnel:** A row of five smiley face icons representing a rating scale from happy to sad. Below each icon is a radio button.
- Buttons:** Two buttons at the bottom, "View rating" and "Submit".

**Rough view and content of the modules "Health care center evaluation form" and «Website authorizations and registrations»**

The image shows two separate modules:

**Registration and Authorization (Left Module):**

- User login:** A text input field.
- User password:** A text input field.
- Submit:** A button.
- Registration (for Rivne region health care personnel):** A text label.
- Access credentials recovery:** A text label.

**Registration and Authorization (Right Module):**

- Welcome, User:** A text label.
- My profile:** A text label.
- Exit:** A button.