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ANALYSIS OF THE LEVEL OF USE AND ACCEPTANCE OF THE MEDICAL INFORMATION SYSTEM IN PRIMARY HEALTH CARE

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This paper presents the analysis of use and acceptance of the medical information system (MIS) within the primary healthcare. Analysis is mostly based on the data from the Health Care Center Niš, although the conclusion was made on the data from a dozen health care centers which use the medical information system MEDIS.NET developed within the Laboratory for Medical Informatics at the Faculty of Electronic Engineering in Niš. Analysis of the use of MIS is based on calculating the percentage of successfully entered records of visits, provided medical services, recipes, referral letters and physical examinations. In the context of the analysis of the use of MIS, successfully entered medical service is actually the service that was not changed or deleted later. Results of this analysis are significant for further technical development of the medical information system, and support the identification of these functionalities that are hardly accepted by the end-users and should be further developed. The acceptance of MIS is analyzed in the light of the technology acceptance model. Registration of provided services and keeping the record of physical examinations are taken as representative functionalities. Registration of provided services has been observed as a functionality that is accepted by the users due to simplicity of use (perceived ease of use), while the registration of physical examinations is observed as functionality presumed to be accepted by the users as useful (perceived usefulness). For the functionalities with the expected acceptance based on the simplicity of use, the rate of correct data input is over 90% in each of the category. However, the rate of correct data inputs for visits and provided services is more than 99%. This is very significant having in mind the fact that these functionalities are often used and the high rate of incorrect inputs would slow down the work of doctors. On the other hand, the percentage of use of special functionalities for input of physical examinations varies considerably. Specially designed functionality for the most common physical examinations of children is used in more than two thirds of cases (sometimes more than 97%), while for the registration of adult's physical examinations, the percentage is lower than 20%. Since the users could input data on physical examinations using the form for visit input, as well as with special form, they will probably use the other option only when the frequency of use is high enough or when the improved functionality of the specialized form provides improved system performances. Under users of MIS we consider the medical staff which uses MIS functionalities in accordance with their duties and privileges (doctors, nurses, medical technicians, etc.).

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Key words: *medical information system, technology acceptance model (TAM), assumed functionality usefulness, assumed simplicity of system use*