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| **Basic informations (podstawowe informacje)** |
| **Explanation, additional information** | **Content of the lecture** |
| **Definicja zdrowia publicznego** *Definition of public health*  | **Public health*** the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society communities and individuals.
* the science and art of preventing disease, prolonging life and promoting health through the organized efforts of the society (Acheson E.D. 1988).
 |
| **Definicja nauki** *Science definition* | **Science** latin scientia = knowledge and enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the natural world.  |
| **Pseudonauka** *Pseudoscience* | **Pseudoscience** a claim, belief or practice posing as science, but which does not constitute or adhere to an appropriate scientific methodology, lacks supporting evidence or plausibility or otherwise lacks scientific status.  |
| **Metoda naukowa** *Scientific method*  | **Scientific method** Body of techniques: * Collection of data through observation and experimentation
* Formulation and testing of hypothesis

**Scientific method** • “As objective as possible” – reduction of biased interpretations of results. • “Full disclosure” – the need to document, archive and share all data and methodology so they are available for careful scrutiny by other scientists, giving them the opportunity to verify results by attempting to reproduce them. |
| **Goals of the research***Cele badań* | **Research** – the search for knowledge any systematic investigation to establish facts (research can use the scientific method, but need not do so. If uses = scientific research) Goal of the research to produce new knowledge, which takes three main forms: 1. Exploratory research which structures and identifies new problem, 2. Constructive research which develops solutions to a problem, 3. Empirical research which tests the feasibility of a solution using empirical evidence.  |
| **Obszary zastosowania metod naukowych***Areas of application of scientific methods***Types of research** *Typy badań* | Generally made using scientific methods, which can include:* the generation of models, theories and hypothesis;
* the development of instruments and methods

 for measurement;* experimental control and manipulation of variables;
* collection of empirical data;
* modeling and analysis of data;
* evaluation of results.

**Types of research** • Primary research – collection of data that does not already exist. • Secondary research – summary, collection and/or synthesis of existing data/results of research. |
| **Primary research (field research)** *Badania pierwotne*  | **Primary research (field research)** • Collection of data that does not already exist • Undertaken after the researcher has gained some insight into the issue by collecting secondary data. • Executed using:- Forms/ questionnaires - Direct observations - Telephone interview - Etc.  |
| **Research methods** *Metody badawcze***Różnica między metodami jakościowymi a ilościowymi***Difference between qualitative and quantitative methods* | **Research methods** * Qualitative research – understanding of human behavior and the reasons that govern such behavior.
* Quantitative research – systematic empirical investigation of quantitative properties and phenomena and then relationships.

**Basic approaches to data collections using primary methods:** * Qualitative research – includes interviews, focus groups and participant observations.
* Quantitative research – includes controlled laboratory experiments, field work, questionnaires and

surveys. **Important difference*** Qualitative methods – produce information only on the particular cases studied and any

more general conclusions are only hypotheses (informative guesses). * Quantitative methods – can be used to verify which of such hypotheses are true. Examples:
* Epidemiology
* Biostatistics
 |

**VOCABULARY**

Empirical research –badania empiryczne

Qualitative research – badania jakościowe

Quantitative research- badania ilościowe

Primary research (field research) – badania pierwotne

Scientific method -metoda naukowa