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Food-borne diseases and food safety strategy

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Introduction: Food-borne infections still remain a public health major concern in the country. *Salmonella* - is the main cause of diarrheal food-borne infections. The vast majority of cases are reported in children. It presented an interest to estimate the disease burden and evaluate effectiveness of control and preventive measures.

Methods: 1. Review and analysis of surveillance data and results of cross-sectional analytical epidemiological studies, conducted for outbreak investigation purposes during the last two decades; 2. Study of microbiological characteristics of the isolated infection agents; 3. Statistical analysis of the results.

Results: Although incidence rates of food-borne infections stabilized, they remain higher in children having an increasing trend for the past five years. Sporadic cases of the infection were mainly reported in severe forms and/or complications. It is likely that many cases, particularly mild and asymptomatic are underreported. Community-acquired cases of salmonellosis were reported in all regions of the country, mainly - in stock-breeding ones during family parties and community gatherings. Investigation of outbreaks showed that the principal reservoirs were domestic animals, including poultry, livestock, but sometimes drinking water, contaminated with animal discharges from firms contributed to water-borne and food-borne outbreaks. The vehicles of the infection were uncooked meat products and raw vegetables. Leading serotype of salmonella strains was *S. typhymurium,* composing 70-99.2%. S. heidelberg and S. enteritidis appeared to be also frequent serotypes but *S. typhymurium* was more frequently isolated from animal and animal products and the environment, biochemical characteristics of which did not differ from those isolated from humans while *S. enteritidis* was common in chicken, eggs and their products, contamination index was about 28%. Contamination was rather higher in eggs obtained from private vendors than from firms.

Discussion and Conclusion: The burden of food-borne diseases is currently unknown. After the break dawn of sanitary surveillance service it became a top-priority issue to: 1. develop new food safety national standards harmonized with the guidance of the Codex Alimentarius and IHR; 2. elaborate standard methods to estimate disease burden as well as to monitor and evaluate food safety measures; 3. appropriately allocate resources to food-borne disease, prevention and control efforts.