

The global clinical microbiology market is expected to reach USD 4.95 billion by 2023 from USD 3.63 billion in 2018, growing at a CAGR of 6.4%. The technological advancements in disease diagnostics, rising incidence of infectious diseases and growing outbreak of epidemics, and increased funding and public-private investments in the field of disease diagnosis are the key factors driving the growth of this market. On the basis of products, the market is categorized into instruments (laboratory instruments and microbiology analyzers) and reagents (pathogen-specific kits and general reagents). The instruments segment is expected to account for the largest share of the global clinical microbiology market in 2018. Factors such as the significant adoption of conventional laboratory instruments among end users, technological advancements in the field of molecular techniques & proteomics (such as the integration of microfluidics with PCR and nanotechnology with PCR techniques), and the ongoing trend of laboratory automation among clinical laboratories, are propelling growth in this segment. On the basis of disease area, the clinical microbiology market is segmented into respiratory diseases, bloodstream infections (BSIs), gastrointestinal (GI) diseases, sexually transmitted diseases (STDs), urinary tract infections (UTIs), periodontal diseases, and other diseases (including cardiovascular disease, central nervous system infections, connective tissue & joint diseases, and skin diseases). The respiratory disease segment is estimated to witness the highest growth during the forecast period, primarily due to as the large patient population suffering from respiratory diseases (coupled with the growing exposure to key risk factors such as pollution) and the increasing number of epidemic outbreaks of respiratory infections.

The global microbiological testing/clinical microbiology market offers significant growth potential for

prominent as well as emerging product manufacturers. Ongoing technological advancements, rising incidence of infectious diseases and growing outbreak of epidemics, and increased funding and public-private investments are some of the key factors driving the growth of the microbiological testing/clinical microbiology market. On the other hand, reimbursement concerns and unfavorable regulatory scenario are limiting the growth of this market during the forecast period. Over the last decade, the clinical diagnostics industry has witnessed significant changes with respect to the approaches utilized for the detection of pathogenic infections such as bacteria, virus, and fungi, as well as for the diagnosis and treatment of infectious diseases such as HIV, tuberculosis, hepatitis, and influenza. The traditional empirical approach involved laboratory culture of the patient sample followed by a microscopic examination to identify pathogen or determine microbial load. With recent advances in genomics and proteomics, microbial identification and quantification methodologies have evolved rapidly. Several emerging molecular diagnostic techniques are increasingly being used for the early detection as well as effective treatment of pathogen-borne diseases. Clinical microbiology testing procedures are not adequately reimbursed across a number of countries such as India, China, and other emerging countries in the Middle East and Africa, which have a high target patient population base. This is a major factor that limits the preference for clinical microbiology products among patients and healthcare professionals. This directly affects the adoption of premium-priced clinical microbiology products, thereby negatively affecting their market growth. The bacteriological testing services market is estimated to be valued at USD 9.58 Billion in 2017, and is projected to reach 13.98 Billion by 2022, at a CAGR of 7.8% during the forecast period. The market

is driven by the global increase in outbreaks of foodborne illnesses, implementation of stringent food safety regulations in developed economies, and increase in microbial contamination in water reservoirs due to rise in urban & industrial waste.

The bacteriological testing services market, based on bacteria, has been segmented into Coliforms, Salmonella, Campylobacter, Legionella, Listeria, and others. The market for testing for Salmonella dominated in 2016, and is also projected to be fastest-growing segment during the forecast period. The severity of infection by this pathogen is generating demand for Salmonella testing in food and water samples, which in turn is driving the market for bacteriological testing. The bacteriological testing services market, by technology, has been segmented into traditional and rapid. The rapid technology segment dominated the market in 2016, and is projected to grow at a higher CAGR by 2022. This is due to low turnaround time, higher accuracy, sensitivity, and ability to test a wide range of bacteria in comparison to traditional technological methods.

The bacteriological testing market, by end-use industry, has been segmented into food & beverage, water, pharmaceutical, and cosmetics. Testing for bacterial contamination in food & beverages is conducted for monitoring and assessment of food quality, and validation of food safety, in order to eliminate the risk of bacterial contamination. Bacteriological testing is performed across the food & beverage industry due to the rising incidence of food spoilage, foodborne illnesses, or food-related intoxication for the detection of various bacterial contaminations. The pharmaceutical segment is projected to grow at the highest CAGR in the overall bacteriological testing market

during the study period. This is attributed to key factors such as the presence of well-established & globally accepted regulations that govern the evaluation of bacterial contamination during pharmaceutical manufacturing and raw material sourcing (coupled with the increasing volume of pharmaceutical drugs sold every year), increase in safety concerns related to pharmaceutical manufacturing in emerging countries, rise in market demand for safer drugs for disease treatment, and expansion of the drug development pipeline of key pharmaceutical manufacturers. The bacteriological testing equipment market, by component, has been segmented into instruments, test kits, and consumables & reagents. This market was dominated by the instruments segment in 2016. The dominance of instruments is attributable to the introduction of sophisticated & improved technologies, increased effectiveness of instruments, and high price of such instruments compared to other components. The market for consumables & reagents is projected to be the fastest-growing during the forecast period. Consumables & reagents are vital components to be used to follow the set compliances of equipment. Therefore, increasing technical and regulatory complexity and their wide use in different instruments is driving this market. North America accounted for the largest market share in the bacteriological testing market. The dominant share of this region is attributed to the stringency of food safety regulations and laws pertaining to nutritional content and labeling in the region. It has the highest number of testing laboratories among all regions and tests the most number of bacteriological samples. The growth of the Asia Pacific market is projected to be the fastest from 2017 to 2022.