

## **Incidence of *Vibrio spp.* in shrimp products and its impact on public health in Bangladesh**

Dr. Md. Motaher Hossain, Assistant Director, Fish Inspection and Quality Control Branch, Department of Fisheries, Matshya Bhaban. Dhaka, Bangladesh.

**Abstract:** *Vibrio spp.* are the pathogenic and anaerobic bacteria which are normally found in the different environment of Bangladesh i.e. inland coastal areas, estuaries, ponds, water with low salinity, sea water and also in fresh water due to the unhygienic sanitary system around the pond site/farm site. In our country, fresh water shrimps are cultured in fresh water environment and brackish water shrimps are cultured in sea water environment. Before 1997, there was no food safety regulation in Bangladesh and consequently fishery products/shrimp products were banned to EU countries due to the repeated presence of pathogenic bacteria. The poor sanitary system, poor HACCP system, absence of SSOP (Sanitary Standard Operating Procedure), GAPs (Good Aquaculture Practices), GHP (Good Hygienic Practices) etc. were the main causes for this occurrence. During 2008-2010 in Fish Inspection and Quality Control (FIQC) laboratory test study for shrimp products, it is found that only five samples were positive for *Vibrio cholerae* out of large number of samples (about 35000), whereas, only one sample was positive in each year of 2009 and 2010 respectively out of almost the same large amount of samples. It reveals that the decreasing rate of the incidence of *Vibrio cholerae* in shrimp products was eighty percent in 2009 and 2010 compared to 2008. It is also proved that product quality, safety and continuity of service in shrimp value chain undoubtedly developed due to the maintaining of HACCP in all stages of shrimp products i.e. farm to fork. Due to the development of GAPS, SSOP and all other hygienic practices in shrimp value chain and fisheries sector in Bangladesh no complain of RASFF (Rapid Alert System for Food and Feed) was found during 2008-2010 for *Vibrio spp.* except the only one RASFF comes from EC very recently caused by *Vibrio parahaemolyticus* in *penaeus monodon*. As *Vibrio cholerae* and *Vibrio parahaemolyticus* are associated with fisheries products /shrimp products and are intestinal pathogenic bacteria so the transmission of diseases like intestinal disorder, vomiting, cramp, fever was occurred in the past very repeatedly but now a days these type of diseases are hardly ever complained in Bangladeshi people due to the rare presence in fishery/shrimp products developing the fishery safety management.

**Keywords:** Shrimps, *Vibrio spp.*, quality and safety of fishery products, intestinal disease, RASFF etc.