

CASE STUDY: MEDICAL CONGRESS DATA SURVEILLANCE



SUMMARY: BERYL Pharma360 was engaged by multinational pharmaceutical company to survey epidemiological data on resistant and invasive pneumococcal strains affecting Asian countries.. Client was also able to build a stronger case for introducing new vaccines in affected Asian regions. Beryl's comprehensive data research and analysis empowered client to improve efficacy of vaccination campaigns, saving many lives while increasing revenues.

SITUATION ANALYSIS

- Pneumonia is the leading cause of death in children worldwide. *Streptococcus pneumoniae* (e.g. pneumococcus) is the most common cause of bacterial pneumonia in children (World Health Organization; <http://www.who.int/mediacentre/factsheets/fs331/en/index.html>).
- Overuse of broad-spectrum antibiotics worldwide has led to intermediate or high-level resistance to penicillin and other antibiotics.
- In China, over 90% of the isolates are multi-drug resistant, with a 70% fatality rate for invasive pneumococcal disease.
- China is addressing overuse of antibiotics through implementation of an antibiotic restriction policy.
- Even so, China still has an urgent need for new and more effective pneumococcal vaccines.

OBJECTIVES

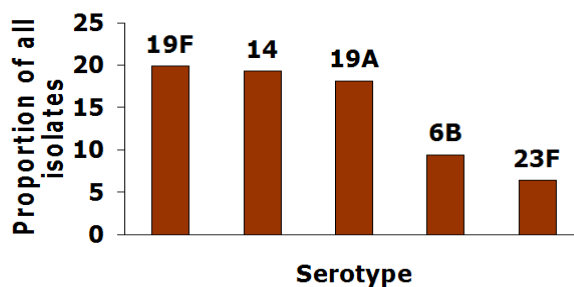
- Attend major international pediatric infectious disease congresses to gain clearer understanding of invasive pneumococcal disease in China and other Asian countries.
- Advise client on the evolution of pneumococcal disease as driver to deploy a broader and faster pneumococcal vaccination campaign.

IMPLEMENTATION

- BERYL Pharma360 attended several major infectious disease congresses (ISPPD, ESPID, ICAAC, IDSA).
- Identified, collected, evaluated, synthesized and reported on key pneumococcal bacterial and disease trends.
- Researched their impact on vaccine development and implementation across Asia.

Five *S. pneumoniae* isolates accounted for 73.1% of all isolates among Chinese children <14 years of age (2006-2008) across 11 sites in China

Serotype distribution of *S. pneumoniae* isolates



•Analysis of local serotype distribution showed that 19A was very common (14.3%-50%) in some northern cities: Beijing, Tianjin, Shenyang, and less common in southern cities (10 – 10.7%) such as Shenzhen
•Among children < 5 years-old serotype 19A accounted for 20.0% of isolates overall
•Authors call for long-term surveillance of NVST, particularly 19A

Xue L et al. *Clin Infect Dis.* 2010;50:741-744.; *European Society of Pediatric Infectious Disease, Nice, France 2010*

- Captured key actionable data in PowerPoint slides and posted on BERYL Pharma360 password-protected site.
- Presented scope and timing of optimal vaccine campaign implementation.

RESULTS

- Successfully identified regions with highest burden of disease, increased exposure to causative pathogens and most urgent need for new vaccine deployment.
- Client was able to expedite new vaccine introductions in Asia based on Beryl Pharma360 Medical Congress Data Surveillance, saving many lives while increasing revenue.

CONCLUSION

BERYL Pharma360 was a key contributor in identifying emerging epidemiological data supporting early and broad vaccine deployment in affected Asian countries. This has saved many lives and increased client revenue.