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**Topic:** Descriptive analysis and distribution of suspected cholera in Liberia, 2016-2018

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**Introduction:** Cholera caused by vibrio cholera subgroup 01 and 0139 is an acute illness characterized with profuse watery diarrhea. Globally, Cholera cases 236,896 including 6,311 deaths reported worldwide in 2006, an increase of 79% compared to 2005. In Africa, 86% suspected cases reported between 1970 and 2011. Liberia has experienced cholera outbreaks especially during rainy season. IDSR system was setup to monitor and detect disease early. This study describes the distribution of cholera cases in Liberia and compared the county specific mortality rate.

**Methods:** We conducted a retrospective record review of cholera’s surveillance data in IDRS from 2016 – 2018 at National Public Health Institute, Liberia. Variables like Sex, Age Group, specify case-fatality rate, Onset date, sample results, outcome and final classification were extracted on Microsoft excel sheet. We conducted univariate analysis and calculated mean, frequency and proportions using Epi Info 7 statistical software.

**Results:** Overall**,** we identified243 cases with case fatality rate of 2.1%, 72 (29.6%) reported in 2016, 96 (40%) in 2017 and 75 (31%) in 2018. Female, 145 (59.7%) and age ≥ 30 years 129 (53%) more affected. Commonest county with high reporting rate were Grand kru 46 (19%) and Montserrado 36 (15%) counties but Nimba and Grand Bassa Counties had the highest mortality rates of 11.7% and 6.7% respectively. Out of 23 (9.5%) samples tested, only 1 was confirmed positive for cholera.

**Conclusion:** Liberia is an endemic country for cholera with age more than 30 years and female more affected. Grand kru and Montserrado had highest attack rates why Nimba and Grand Bassa also had mortality rates. Efforts that strengthen data quality, cholera surveillance and reduce transmission or outbreaks in counties with high mortality and attack rates is recommended.

**Key words:** Cholera, Case-fatality rate, data, surveillance, descriptive, distribution, analysis, IDSR, attack rate, samples, outbreaks, endemic, mortality