CUMULATIVE INVASIVE PNEUMOCOCCAL DISEASE CASE NUMBERS REPORTED BY THE GERMS-SA SURVEILLANCE PROGRAMME, 2005 TO DATE

GERMS-SA surveillance programme
http://www.nicd.ac.za/?page=germs-sa&id=97

- National, active, laboratory-based surveillance initiated in 2003
- Invasive pneumococcal disease (IPD) cases defined as hospitalised individuals with *Streptococcus pneumoniae* cultured from normally sterile site specimens (e.g., cerebrospinal fluid, blood or joint fluid)
- Excluded repeat isolates from the same individual within 21 days
- ~270 laboratories each year send reports and isolates
- Age, sex, date of specimen collection, and source of specimen captured
- Pneumococci serotyped by Quellung reaction using specific antisera (Statens Serum Institut, Copenhagen, Denmark)
- Only viable isolates included in cumulative graph case numbers as molecular diagnostic techniques only introduced in 2007

PCV vaccine introduction in South Africa

- 7-valent pneumococcal conjugate vaccine (PCV-7) introduced nationally in April 2009 with no catch-up vaccination campaign
- Limited PCV-13 catch-up campaign in 2011 and 2012
- WHO/UNICEF coverage data for the third PCV dose in South Africa: 10% in 2009, 64% in 2010, 72% in 2011, 81% in 2012 and 62% in 2013 (1).

Data are provisional as reported to date.
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**Figure 1**: Cumulative weekly number of cases of invasive pneumococcal disease due to any of the seven serotypes (4, 6B, 9V, 14, 18C, 19F and 23F) in PCV7: children < 5 years of age in South Africa, from 2005 to date. Only viable isolates were included.
Figure 2: Cumulative weekly numbers of cases of invasive pneumococcal disease due to any of the six additional (1, 3, 5, 6A, 7F, 19A) serotypes in PCV 13 but not in PCV7: children <5 years of age in South Africa, from 2005 to date. Only viable isolates were included. (Note: There is reported cross protection between 6A and 6B which is included in PCV-7 (2))

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**Figure 3:** Cumulative weekly numbers of cases of invasive pneumococcal disease due to any of the serotypes not in PCV13: Children <5 years of age in South Africa, from 2005 to date. Only viable isolates were included.

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**Figure 4**: Cumulative weekly number of cases of invasive pneumococcal disease due to any of the seven serotypes (4, 6B, 9V, 14, 18C, 19F and 23F) in PCV7: Individuals ≥ 5 years old of age in South Africa, from 2005 to date. Only viable isolates were included.

Introduction of PCV7, 1 April 2009

Introduction of PCV13, June 2011

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Figure 5: Cumulative weekly numbers of cases of invasive pneumococcal disease due to any of the six additional (1, 3, 5, 6A, 7F, 19A) serotypes in PCV 13 but not in PCV7: individuals ≥ 5 years of age in South Africa, from 2005 to date. Only viable isolates were included (Note: There is reported cross protection between 6A and 6B which is included in PCV-7(2))

Data are provisional as reported to date.
**Figure 6:** Cumulative weekly numbers of cases of invasive pneumococcal disease due to any of the serotypes not in PCV13: individuals ≥5 years of age in South Africa, from 2005 to date. Only viable isolates were included.

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Data Source
National Institute for Communicable Diseases | GERMS-SA

References

1. World Health Organization. WHO-UNICEF estimates of PCV3 coverage. Available at:


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