NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service

# NMC SURVEILLANCE REPORT
# August 2023

## NOTIFIABLE MEDICAL CONDITIONS SURVEILLANCE SYSTEM

Issued by the National Institute for Communicable Diseases

### Introduction

This report summarises data from the National Notifiable Medical Conditions Surveillance System (NMCSS) on cases notified in **August 2023**. Additionally, this report includes information on the distribution of case notifications by sources, such as clinical or laboratory notifications, merged cases (**see Appendix no. 3**), and the number of reported deaths. It monitors the use of the electronic NMC Reporting Application (App) for notification, data quality, specifically the completeness and timeliness of clinical diagnosis and notifications over time, and back-captured cases notified in August 2023 (**see Appendices nos. 1 and 3**). Category 4 NMCs, COVID-19, and multi-system inflammatory syndrome (MIS-C) have been excluded from this report.

### Highlights

- A total of 8 652 cases were notified in August 2023 and the majority were category 2 conditions.
- There were 397 average active users of the NMC App in August 2023.
- Category 1 cases were reported in median (IQR) of 1 (0, 3) days.

### NMC Reporting application

- NMC Reporting App is available on both web and mobile platforms.

- Use recommended browsers in order to access NMC reporting App for notifications, searching of cases and reports.
- Register if you have no NMC account and you can reset the password if you have not used the application over 12 months.

**NOTES:** For any additional information contact the NMC national technical team: NMCAppSupport@nicd.ac.za or NMC hotline 072 621 3805. Please refer to Appendices for NMC data flow, definitions and interpretation of epidemiology data in this report.

**DATA IS CONTINUOUSLY CLEANED, DE-DUPLICATED, AND UPDATED, HENCE IS SUBJECT TO CHANGE. ALL NUMBERS REPORTED ARE PRELIMINARY UNLESS OTHERWISE STATED. DATE OF DIAGNOSIS IS USED FOR REPORTING.**

**NMC data summary, August 2023**

A total of n=8932 cases were notified to the NMCSS in August 2023 (**see Appendix no.3 for definitions**). There were 8 652 current notifications and the majority were category 2 conditions (n= 7 906,91%). The provinces with the highest number of notifications were Gauteng (n=2 243, 26%), KwaZulu-Natal (n=2 180, 25%), and Western Cape (n=1 587, 18%). The provinces with the least number of notifications were North West (n=313, 3.6%), and Northern Cape (n=334, 3.9%). (**Figure 1**) There were n=280 back captured clinical notifications that were diagnosed between November 2017 and August 2023, and only notified in August 2023. The majority (n=198, 71%) of those notifications were TB cases (**see Appendix no.1**).

***Table 1:*** *Description of NMC notifications by case source*

| **NMC Category** | **Overall**, N = 8 652 | **Clinical notifications**, n = 6277 | **Laboratory notifications**, n = 2146 | **Merged Cases**, n = 229 |
|---|---|---|---|---|
| Category 1 | 654 (7.6%) | 366 (5.8%) | 209 (9.7%) | 79 (34%) |
| Category 2 | 7 906 (91%) | 5 911 (94%) | 1 856 (86%) | 139 (61%) |
| Category 3 | 92 (1.1%) | 0 (0%) | 81 (3.8%) | 11 (4.8%) |

**App use**

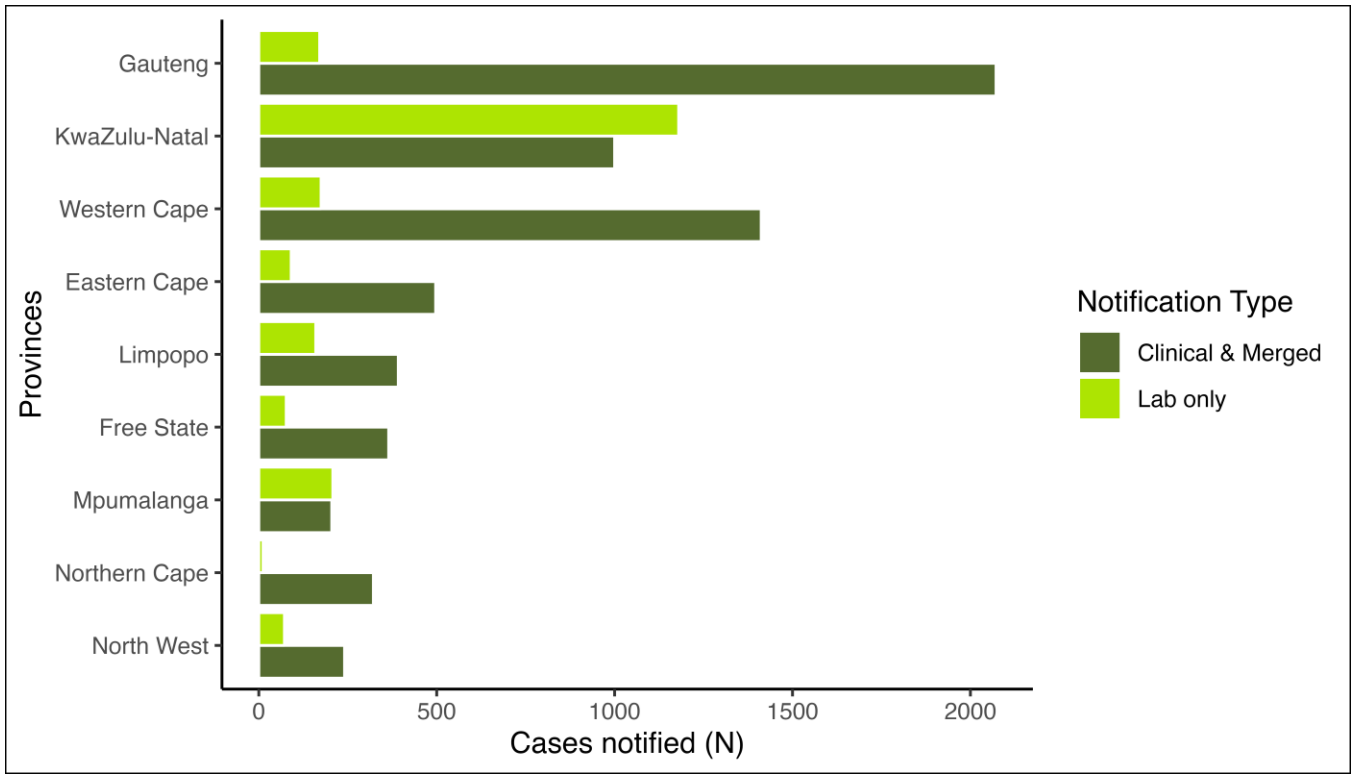



***Figure 1:*** *Distribution of notifications by province and notification type*

There were n=650 (10.0%) clinical notifications from the private sector (i.e. private hospitals, private practice and mining industry) compared to n=5 856 (90%) in the public sector. Clinical notifications using the NMC Reporting Application made up n=6 180 (97%) (see Table 2).

***Table 2:*** *Clinical notifications notified by provinces, reporting platform, and sector*

| **Province** | **Overall**, N = 6 331 | **App - Private**, n = 638 | **App - Public**, n = 5531 | **Paper-based - Private**, n = 12 | **Paper-based - Public**, n = 150 |
|---|---|---|---|---|---|
| GP | 2 025 (100%) | 213 (11%) | 1 804 (89%) | 1 (<0.1%) | 7 (0.3%) |
| WC | 1 377 (100%) | 93 (6.8%) | 1 208 (88%) | 1 (<0.1%) | 75 (5.4%) |
| KZN | 934 (100%) | 117 (13%) | 805 (86%) | 0 (0%) | 12 (1.3%) |
| EC | 491 (100%) | 32 (6.5%) | 442 (90%) | 0 (0%) | 17 (3.5%) |
| LP | 388 (100%) | 35 (9.0%) | 351 (90%) | 2 (0.5%) | 0 (0%) |
| FS | 365 (100%) | 45 (12%) | 314 (86%) | 6 (1.6%) | 0 (0%) |
| NC | 322 (100%) | 12 (3.7%) | 303 (94%) | 0 (0%) | 7 (2.2%) |
| NW | 241 (100%) | 47 (20%) | 172 (71%) | 1 (0.4%) | 21 (8.7%) |
| MP | 188 (100%) | 44 (23%) | 132 (70%) | 1 (0.5%) | 11 (5.9%) |

***Table 3:*** *Age distribution by gender, admission status, and patient outcome*

| | Gender | | | Admission Status | | | | Vital Status | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Age Category** | **Female** | **Male** | **Unknown** | **Discharged** | **Inpatient** | **Outpatient** | **Transferred** | **Unknown** | **Alive** | **Deceased** | **Unknown** | **Overall** |
| 0-4 | 347 | 406 | 3 | 59 | 275 | 212 | 5 | 205 | 555 | 9 | **192** | 756 |
| 5-9 | 142 | 190 | 0 | 20 | 63 | 67 | 1 | 181 | 156 | 2 | **174** | 332 |
| 10-14 | 143 | 402 | 0 | 20 | 60 | 89 | 0 | 376 | 169 | 1 | **375** | 545 |
| 15-19 | 226 | 352 | 0 | 25 | 60 | 175 | 3 | 315 | 270 | 1 | **307** | 578 |
| 20-24 | 260 | 259 | 0 | 26 | 99 | 238 | 5 | 151 | 373 | 6 | **140** | 519 |
| 25-29 | 354 | 356 | 0 | 32 | 131 | 372 | 6 | 169 | 556 | 4 | **150** | 710 |
| 30-34 | 441 | 532 | 0 | 56 | 202 | 492 | 11 | 212 | 788 | 7 | **178** | 973 |
| 35-39 | 403 | 645 | 0 | 53 | 258 | 512 | 9 | 216 | 840 | 11 | **197** | 1 048 |
| 40-44 | 306 | 538 | 0 | 39 | 206 | 424 | 10 | 165 | 693 | 14 | **137** | 844 |
| 45-49 | 235 | 426 | 1 | 39 | 181 | 320 | 4 | 118 | 553 | 11 | **98** | 662 |
| 50-54 | 198 | 303 | 0 | 37 | 119 | 270 | 4 | 71 | 436 | 6 | **59** | 501 |
| 55-59 | 117 | 250 | 0 | 28 | 118 | 177 | 1 | 43 | 328 | 7 | **32** | 367 |
| 60-64 | 99 | 178 | 0 | 26 | 88 | 134 | 4 | 25 | 243 | 10 | **24** | 277 |
| 65+ | 171 | 207 | 0 | 37 | 134 | 152 | 1 | 54 | 323 | 15 | **40** | 378 |
| Unknown | 58 | 104 | 0 | 3 | 19 | 15 | 0 | 125 | 39 | 2 | **121** | 162 |
| **Total** | **3 500** | **5 148** | **4** | **500** | **2 013** | **3 649** | **64** | **2 426** | **6 322** | **106** | **2 224** | **8 652** |

The majority of the notified cases were Males n=5 148 (60%). Notifications in the 35-39-year age group represented the majority n=1 048 (12%) of notified cases (**Table 3**). At the time of notification, n=2 013 (23%) of the notified cases were hospitalised, while n=64 (0.7%) were transferred to another healthcare facility. There were n=106 deaths notified during the reporting period with case fatality rate of 1.2%.

## Hospital form completeness of known hospitalised patients with a category 1 notification

***Table 4:*** *Completion of hospitalisation form for patients diagnosed with category 1 conditions who were either admitted, discharged, or transferred out*

| | **Discharged** | | **Inpatient** | **Transferred** | |
|---|---|---|---|---|---|
| **Hospital Form Completed** | **No**, n = 35 (61%) | **Yes**, n = 22 (39%) | **Yes**, n = 280 (100%) | **No**, n = 3 (43%) | **Yes**, n = 4 (57%) |
| Acute Flaccid Paralysis | 0 (0%) | 1 (4.5%) | 15 (5.4%) | 0 (0%) | 1 (25%) |
| Cholera* | 1 (2.9%) | 0 (0%) | 8 (2.9%) | | |
| Congenital rubella syndrome | 1 (2.9%) | 1 (4.5%) | 1 (0.4%) | | |
| Food borne illness outbreak | 2 (5.7%) | 1 (4.5%) | 15 (5.4%) | | |
| Malaria | 7 (20%) | 4 (18%) | 40 (14%) | | |
| Measles | 4 (11%) | 3 (14%) | 22 (7.9%) | | |
| Pertussis | 20 (57%) | 12 (55%) | 142 (51%) | 2 (67%) | 1 (25%) |
| Acute rheumatic fever | | | 1 (0.4%) | | |
| Diphtheria | | | 3 (1.1%) | | |
| Enteric fever (typhoid or paratyphoid fever) | | | 8 (2.9%) | | |
| Listeriosis | | | 1 (0.4%) | 1 (33%) | 1 (25%) |
| Meningococcal Disease | | | 19 (6.8%) | 0 (0%) | 1 (25%) |
| Rabies | | | 4 (1.4%) | | |
| Rubella | | | 1 (0.4%) | | |

*notified on clinical suspicion and not confirmed cases

## Distribution of category 1 NMCs by province and number of deaths

***Table 5**: Distribution of Category 1 NMC by Province*

| | Provinces | | | | | | | | | Vital Status | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Condition | **EC** | **FS** | **GP** | **KZN** | **LP** | **MP** | **NC** | **NW** | **WC** | **Not Deceased**, n(%) | **Deceased**, n(%) |
| Acute Flaccid Paralysis | 0 | 0 | 4 | 5 | 3 | 0 | 0 | 0 | 5 | 17 (100%) | 0 (0%) |
| Acute rheumatic fever | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 (100%) | 0 (0%) |
| Cholera* | 0 | 0 | 4 | 3 | 0 | 4 | 1 | 0 | 0 | 12 (100%) | 0 (0%) |
| Congenital rubella syndrome | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 6 (100%) | 0 (0%) |
| Diphtheria | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 (100%) | 0 (0%) |
| Enteric fever (typhoid or paratyphoid fever) | 0 | 1 | 12 | 4 | 0 | 0 | 0 | 1 | 2 | 20 (100%) | 0 (0%) |
| Food borne illness outbreak | 0 | 0 | 28 | 8 | 3 | 0 | 0 | 0 | 0 | 39 (100%) | 0 (0%) |
| Listeriosis | 1 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 1 | 7 (88%) | 1 (13%) |
| Malaria | 3 | 8 | 35 | 10 | 19 | 28 | 1 | 5 | 17 | 125 (99%) | 1 (0.8%) |
| Measles | 3 | 1 | 18 | 17 | 11 | 4 | 2 | 2 | 12 | 70 (100%) | 0 (0%) |
| Meningococcal Disease | 3 | 1 | 4 | 2 | 1 | 1 | 2 | 1 | 11 | 23 (88%) | 3 (12%) |
| Pertussis | 26 | 44 | 113 | 30 | 13 | 15 | 3 | 15 | 44 | 297 (98%) | 6 (2.0%) |
| Rabies | 1 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 6 (75%) | 2 (25%) |
| Rubella | 1 | 1 | 5 | 3 | 0 | 2 | 0 | 2 | 1 | 15 (100%) | 0 (0%) |
| Waterborne illness outbreak - UNDEFINED | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 (100%) | 0 (0%) |

*notified on clinical suspicion and not confirmed cases

The majority of category 1 notifications were for Pertussis n=303 (46%). The majority of Pertussis cases were notified in GP n=113 (37.3%).

**Distribution of category 2 NMCs by province and number of deaths**

***Table 6:*** *Distribution of Category 2 NMC by Province*

| | Provinces | | | | | | | | | Vital Status | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Condition | **EC** | **FS** | **GP** | **KZN** | **LP** | **MP** | **NC** | **NW** | **WC** | **Not Deceased** n(%) | **Deceased** n(%) |
| Agricultural or stock remedy poisoning | 1 | 13 | 33 | 0 | 5 | 0 | 1 | 1 | 4 | 54 (93%) | 4 (6.9%) |
| Bilharzia (schistosomiasis) | 21 | 3 | 31 | 554 | 133 | 164 | 0 | 0 | 19 | 924 (100%) | 1 (0.1%) |
| Congenital syphilis | 3 | 0 | 4 | 10 | 1 | 1 | 0 | 2 | 7 | 28 (100%) | 0 (0%) |
| Haemophilus influenzae type B | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 7 (100%) | 0 (0%) |
| Hepatitis A | 21 | 10 | 90 | 90 | 27 | 27 | 5 | 12 | 135 | 416 (100%) | 1 (0.2%) |
| Hepatitis B | 26 | 33 | 65 | 626 | 5 | 11 | 6 | 44 | 20 | 833 (100%) | 3 (0.4%) |
| Hepatitis C | 0 | 0 | 6 | 0 | 0 | 7 | 0 | 0 | 0 | 13 (100%) | 0 (0%) |
| Hepatitis E | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 (100%) | 0 (0%) |
| Legionellosis | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 3 | 6 (86%) | 1 (14%) |
| Maternal death (pregnancy, childbirth and puerperium) | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 (0%) | 1 (100%) |
| Soil transmitted helminths | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 (100%) | 0 (0%) |
| Tetanus | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 (0%) | 1 (100%) |
| Tuberculosis: extensively drug -resistant (XDR -TB) | 0 | 0 | 0 | 1 | 4 | 1 | 0 | 0 | 3 | 9 (100%) | 0 (0%) |
| Tuberculosis: multidrug- resistant (MDR -TB) | 23 | 3 | 49 | 50 | 5 | 4 | 2 | 7 | 32 | 171 (98%) | 4 (2.3%) |
| Tuberculosis: extra-pulmonary | 61 | 74 | 528 | 115 | 64 | 16 | 37 | 63 | 173 | 1 103 (98%) | 28 (2.5%) |
| Tuberculosis: pulmonary | 392 | 248 | 1 369 | 657 | 270 | 127 | 282 | 160 | 1 070 | 4 526 (99%) | 49 (1.1%) |

The majority of category 2 notifications were for Tuberculosis: pulmonary n=4 575 (56%). The majority of Tuberculosis: pulmonary cases were notified in GP n= 1369(29.9%).

**The average active users on the NMC App**

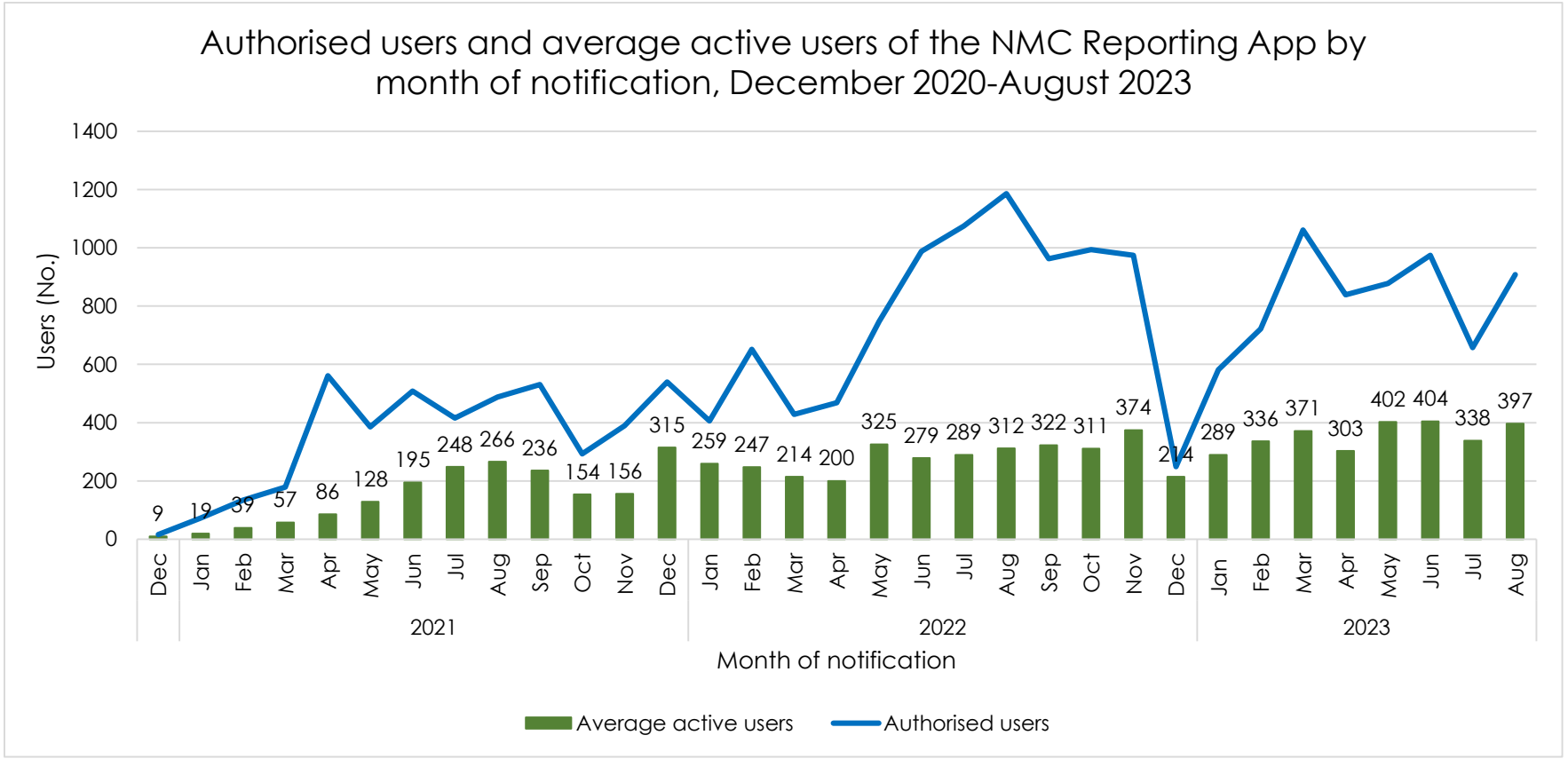



***Figure 2**: The average active users of the NMC reporting Application, December 2020 to August 2023*

**Data quality**

**Completeness** refers to the proportion of complete data entries per variable in the dataset among clinical and merged notifications. In August 2023, there was an increase in completeness of date of diagnosis and patient folder number, while demographic details and patient vital status remain complete.

**Timeliness** is measured by the number of days from the time of diagnosis of the NMC to the time of notification. Overall, it took a median (IQR) of 1 (0, 3) days to report category 1 NMCs.

***Table 7**: NMC data completeness on both reporting platforms*

| | **App**, N = 6 169 | **Paper-based**, N = 162 |
|---|---|---|
| **Folder Number** | 6 169 (100%) | 162 (100%) |
| **First Name** | 6 169 (100%) | 162 (100%) |
| **Surname** | 6 169 (100%) | 162 (100%) |
| **Symptom Onset Date** | 5 985 (97%) | 154 (95%) |
| **Date of Diagnosis** | 6 169 (100%) | 162 (100%) |
| **Outcome** | 6 169 (100%) | 162 (100%) |

## ID number completeness

***Table 8**: Length of ID numbers inputted on NMC system*

| **Length of ID number** | **Android**, N = 2 110[1] | **Microstrategy/SDW**, N = 2 321[1] | **Paper-based**, N = 162[1] | **Web**, N = 3 686[1] | **iOS**, N = 373[1] |
|---|---|---|---|---|---|
| 0 | 752 (36%) | 2 297 (99%) | 115 (71%) | 1 152 (31%) | 147 (39%) |
| 5 | 0 (0%) | 0 (0%) | 0 (0%) | 2 (<0.1%) | 0 (0%) |
| 6 | 0 (0%) | 4 (0.2%) | 0 (0%) | 250 (6.8%) | 26 (7.0%) |
| 7 | 0 (0%) | 0 (0%) | 0 (0%) | 1 (<0.1%) | 1 (0.3%) |
| 8 | 0 (0%) | 0 (0%) | 0 (0%) | 48 (1.3%) | 1 (0.3%) |
| 9 | 0 (0%) | 0 (0%) | 0 (0%) | 12 (0.3%) | 2 (0.5%) |
| 10 | 0 (0%) | 0 (0%) | 0 (0%) | 84 (2.3%) | 1 (0.3%) |
| 11 | 0 (0%) | 0 (0%) | 0 (0%) | 4 (0.1%) | 0 (0%) |
| 12 | 0 (0%) | 0 (0%) | 0 (0%) | 22 (0.6%) | 0 (0%) |
| 13 | 1 358 (64%) | 20 (0.9%) | 47 (29%) | 2 111 (57%) | 195 (52%) |
| Unknown | 0 | 0 | 0 | 0 | 0 |

[1]n (%)

The length of the South African ID number is 13 digits and this is a useful variable to identify duplicate notifications, or to link clinical and laboratory information (making a merged case). Most of the notifications from Microstrategy/SDW n=2 297 (99%) have no ID number.

## Symptomatology

***Table 9**: Symptoms of patients clinically notified and merged with lab notifications to the NMC*

| **Characteristic** | **Overall**, N = 6 506[1] | **1**, N = 445[1] | **2**, N = 6 050[1] | **3**, N = 11[1] |
|---|---|---|---|---|
| Cough | 3 094 (48%) | 28 (6.3%) | 3 066 (51%) | 0 (0%) |
| No Symptoms Reported | 1 957 (30%) | 171 (38%) | 1 778 (29%) | 8 (73%) |
| Loss of weight | 1 845 (28%) | 1 (0.2%) | 1 844 (30%) | 0 (0%) |
| Loss of appetite | 1 344 (21%) | 6 (1.3%) | 1 338 (22%) | 0 (0%) |
| Night Sweats | 1 166 (18%) | 1 (0.2%) | 1 165 (19%) | 0 (0%) |
| Chest pains | 1 018 (16%) | 0 (0%) | 1 018 (17%) | 0 (0%) |
| Fever | 919 (14%) | 65 (15%) | 854 (14%) | 0 (0%) |
| Shortness of breath | 560 (8.6%) | 0 (0%) | 560 (9.3%) | 0 (0%) |
| Weakness | 473 (7.3%) | 0 (0%) | 473 (7.8%) | 0 (0%) |
| Flu like symptoms | 444 (6.8%) | 5 (1.1%) | 439 (7.3%) | 0 (0%) |
| Other | 412 (6.3%) | 3 (0.7%) | 406 (6.7%) | 3 (27%) |
| Muscle weakness | 393 (6.0%) | 14 (3.1%) | 379 (6.3%) | 0 (0%) |
| Paroxysmal coughing | 92 (1.4%) | 92 (21%) | 0 (0%) | 0 (0%) |
| Vomiting | 79 (1.2%) | 79 (18%) | 0 (0%) | 0 (0%) |
| Maculopapular rash | 47 (0.7%) | 47 (11%) | 0 (0%) | 0 (0%) |
| Inspirational whoop | 36 (0.6%) | 36 (8.1%) | 0 (0%) | 0 (0%) |
| Acute febrile illness | 32 (0.5%) | 32 (7.2%) | 0 (0%) | 0 (0%) |
| Headache | 24 (0.4%) | 24 (5.4%) | 0 (0%) | 0 (0%) |
| Conjunctivitis | 19 (0.3%) | 19 (4.3%) | 0 (0%) | 0 (0%) |

| **Characteristic** | **Overall**, N = 6 506[1] | **1**, N = 445[1] | **2**, N = 6 050[1] | **3**, N = 11[1] |
|---|---|---|---|---|
| Tiredness / Body malaise | 12 (0.2%) | 12 (2.7%) | 0 (0%) | 0 (0%) |
| Rice-water stools | 1 (<0.1%) | 1 (0.2%) | 0 (0%) | 0 (0%) |
| Coryza (running nose) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |

[1]n (%)

**Conclusion**

The majority of notifications were clinical notifications. The increase in average active users and newly registered users over time is an indication of an increase in the acceptance of the NMC App in the provinces. Application of mandatory fields on the NMC App have improved completeness of clinical details however ID numbers are not well captured among notifications from Microstrategy/SDW.

**Recommendations**

- We recommend the expedition of NMC App "whitelisting" on the provincial departmental intranet to make the electronic notification platform more accessible to health facilities.
- NMC Trainers to emphasise the importance of timeous reporting of Category 1 and 2 NMCs, in order to ensure real-time availability of data for public health action.
- We encourage both paper-based and app notifiers to fill out the symptom onset.
- We recommend completion of the hospitalisation form for patients who were admitted in hospital.
- We recommend that clinicians edit existing laboratory notifications to improve completeness of notifications.
- We encourage clinicians and data capturers to report the full ID number of patients on laboratory forms and when capturing electronically.

## Appendices

### Appendix no.1: Back captured clinical notifications

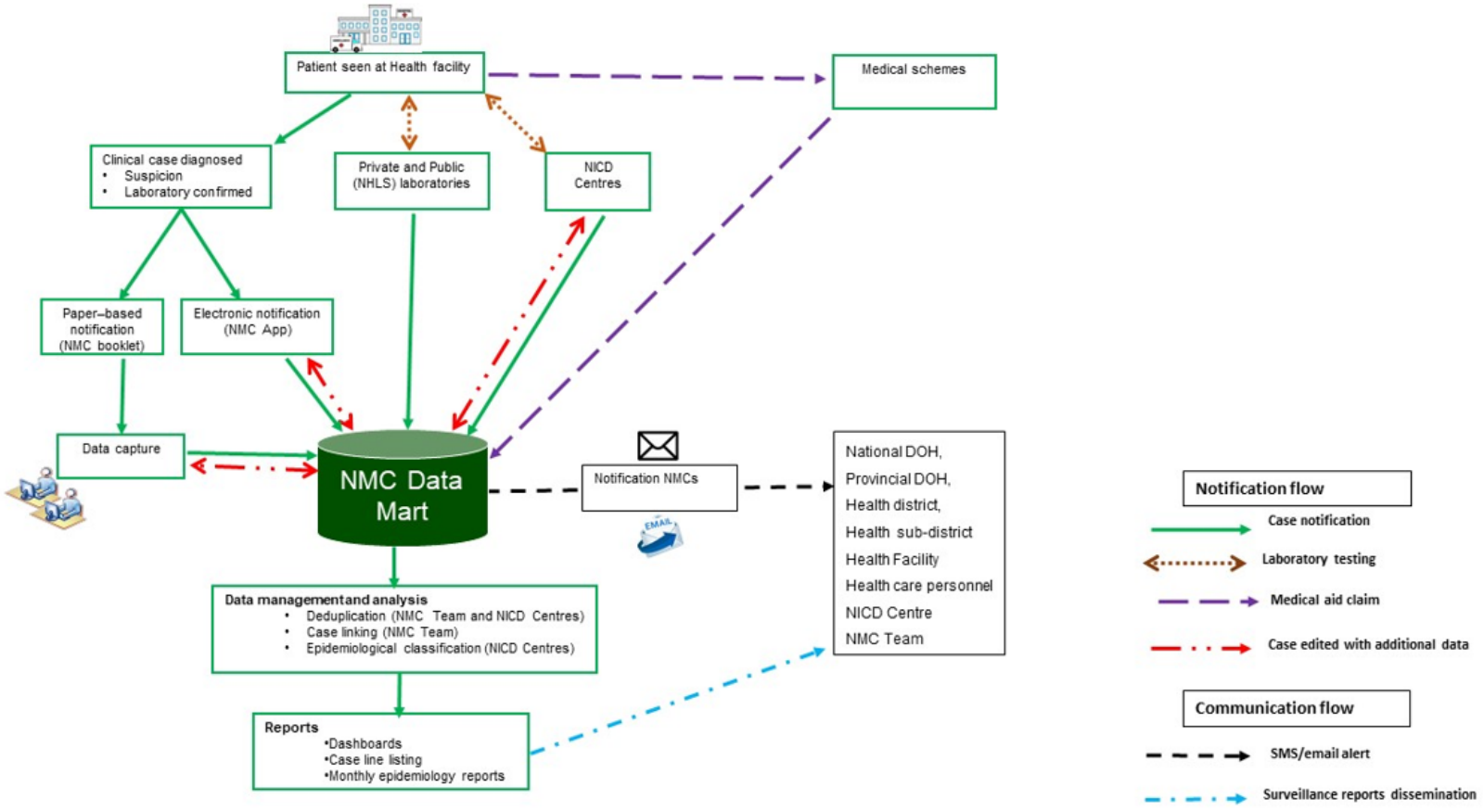
***Table 10:*** *Back captured notifications by reporting province*

| | Overall | Province | | | | | | | | | Case Source | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition** | **Overall**, n = 280 | **EC**, n = 12 | **FS**, n = 2 | **GP**, n = 180 | **KZN**, n = 22 | **LP**, n = 15 | **MP**, n = 3 | **NC**, n = 10 | **NW**, n = 4 | **WC**, n = 32 | **Android**, n = 68 | **Paper-based**, n = 3 | **Web**, n = 206 | **iOS**, n = 3 |
| Enteric fever (typhoid or paratyphoid fever) | 1 (0.4%) | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Hepatitis B | 1 (0.4%) | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Tuberculosis: extensively drug - resistant (XDR -TB) | 2 (0.7%) | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Tuberculosis: multidrug- resistant (MDR -TB) | 12 (4.3%) | 1 | 0 | 7 | 2 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 9 | 0 |
| Tuberculosis: extra-pulmonary | 66 (24%) | 0 | 0 | 56 | 0 | 2 | 1 | 0 | 2 | 5 | 14 | 0 | 52 | 0 |
| Tuberculosis: pulmonary | 198 (71%) | 11 | 2 | 116 | 19 | 11 | 2 | 10 | 1 | 26 | 49 | 3 | 143 | 3 |

***Table 11:*** *Back captured notifications by reporting case source*

| | **Overall** | **Case Source** | | | |
|---|---|---|---|---|---|
| | **N = 280** | **Android**, N = 68 | **Paper-based**, N = 3 | **Web**, N = 206 | **iOS**, N = 3 |
| Enteric fever (typhoid or paratyphoid fever) | 1 (0.4%) | 0 | 0 | 1 | 0 |
| Hepatitis B | 1 (0.4%) | 0 | 0 | 1 | 0 |
| Tuberculosis: extensively drug -resistant (XDR -TB) | 2 (0.7%) | 2 | 0 | 0 | 0 |
| Tuberculosis: multidrug- resistant (MDR -TB) | 12 (4.3%) | 3 | 0 | 9 | 0 |
| Tuberculosis: extra-pulmonary | 66 (24%) | 14 | 0 | 52 | 0 |
| Tuberculosis: pulmonary | 198 (71%) | 49 | 3 | 143 | 3 |

**Appendix no.2: Summary of NMCSS Data Flow**



**Appendix no.3: NMC Categories, and Case Classification definitions**

**NMC categories**

**Category 1**: NMCs notified by the most rapid means available upon diagnosis, followed by a written or electronic notification to the Department of Health within 24 hours of diagnosis by healthcare providers, private health laboratories or public health laboratories. These conditions must be notified based on clinical suspicion irrespective of laboratory confirmation.

**Category 2**: NMCs notified through a written or an electronic notification to the Department of Health of clinical or laboratory diagnosis within 7 days by healthcare providers, private health laboratories or public health laboratories.

**Category 3**: NMCs notified through a written or electronic notification to the Department of Health within 7 days of diagnosis by public and private health laboratories.

**Category 4**: NMCs notified through a written or electronic notification to the Department of Health within 1 month of diagnosis by public and private health laboratories.

**Case Classification definitions**

**Clinical case**: are cases reported to the NMC by health care providers at facilities, either through completion of a paper form that is faxed, emailed to National Institute of Communicable Diseases (NICD), or by direct data entry into the NMC application on a PC, laptop or mobile device. The diagnosis is made by the clinician on the basis of case definitions published on the NICD website.

**Laboratory case**: are cases that are downloaded into the NMC database directly from the National Health Laboratory Services (NHLS) laboratory information system. The NMC application applies the case definitions that are published on the NICD website. Private sector data is being sourced.

**Merged cases**: are cases where a case was notified by health care provider at the facility (a 'clinical case') AND the laboratory issued a report with a positive result for the same case (a 'laboratory case). The NMC App is set up to automatically detect and link clinical and laboratory case notifications. The NICD specialist Centres and NMC data team review all cases and manually link any remaining clinical and laboratory cases

**Notification capture times definitions**

**Current notification**: All cases diagnosed and notified in the current month

**Delayed notification**: All cases diagnosed in the last 14 days from the previous month

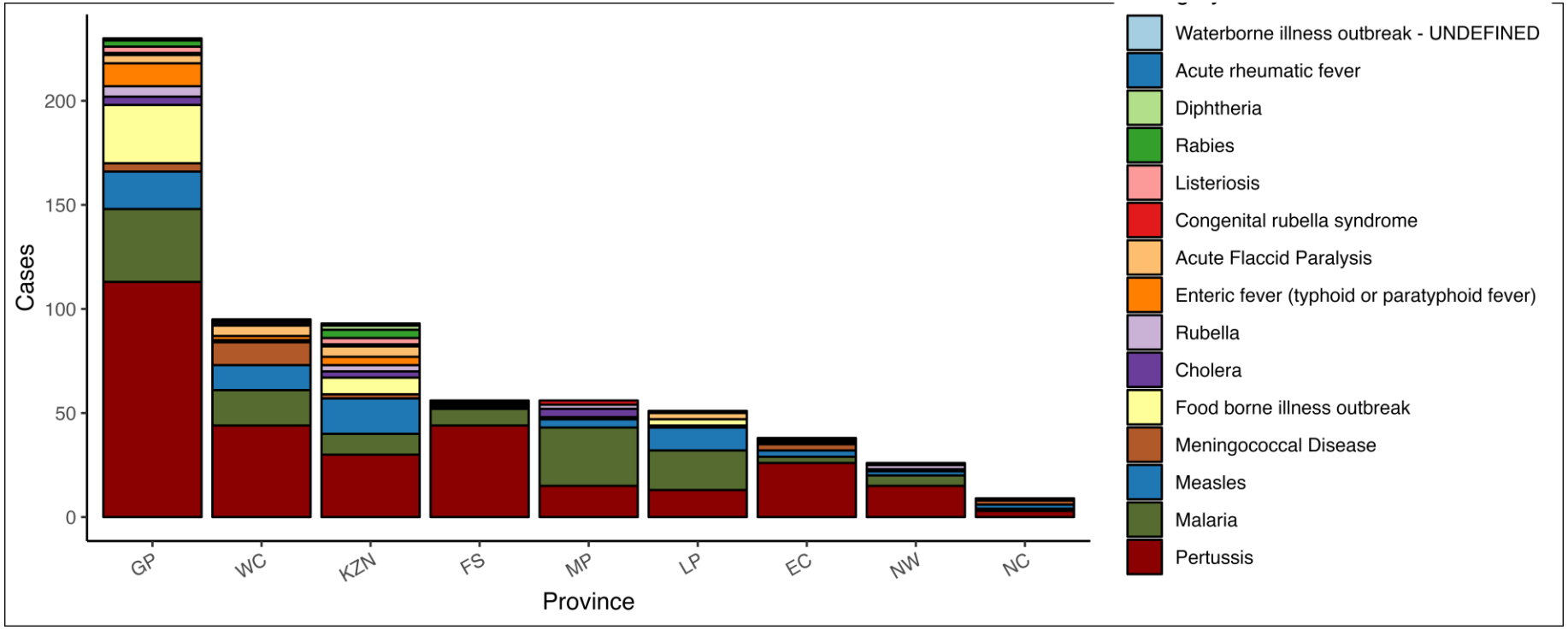
**Back capture notification**: All cases diagnosed in previous months and before the last 14 days of the previous month.

**Incidence of notified NMC conditions**

**Methodological note**: Population estimates are taken from Stats SA. A multiple linear regression model with natural splines (4 degrees of freedom) to estimate the population for the reporting month was implemented for incidence calculations. Incidence is taken as the number of notifications reported to the NMC after cleaning and deduplication. Case definitions are not strictly applied.

**Cases and incidence by province**

**Category 1**



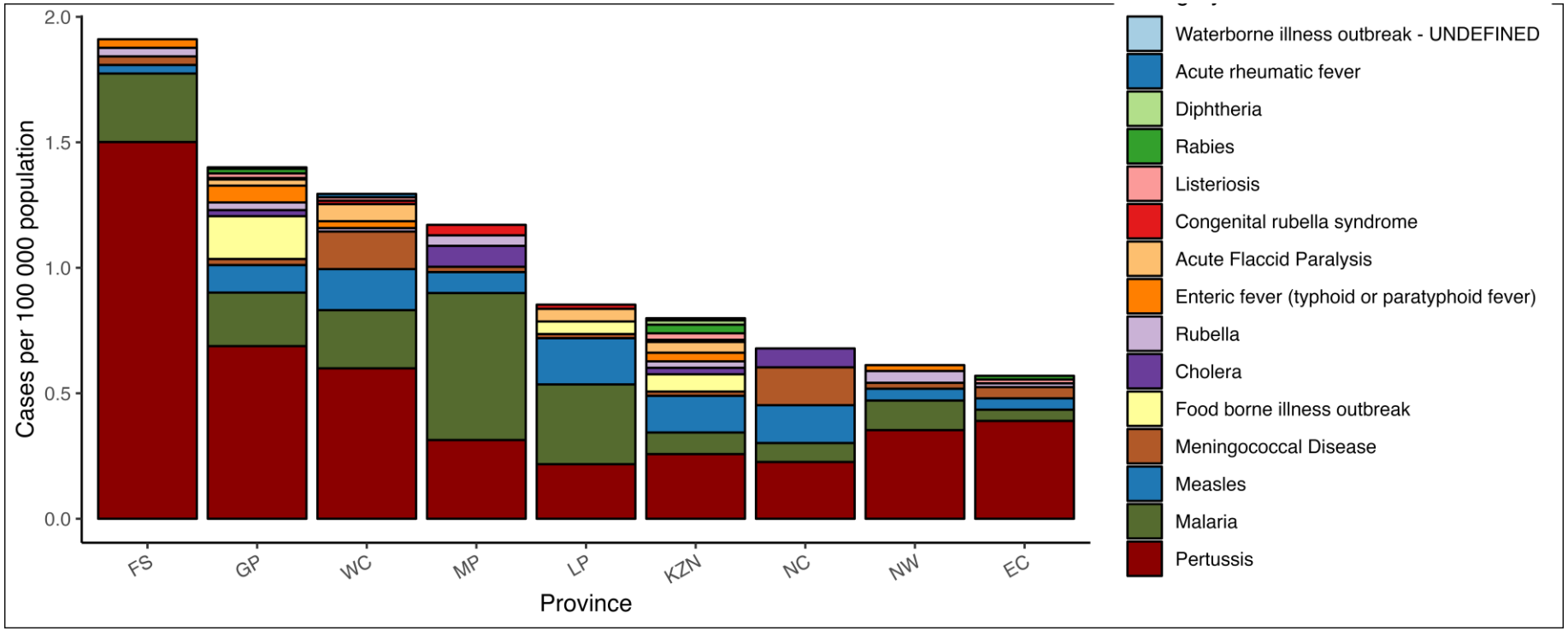
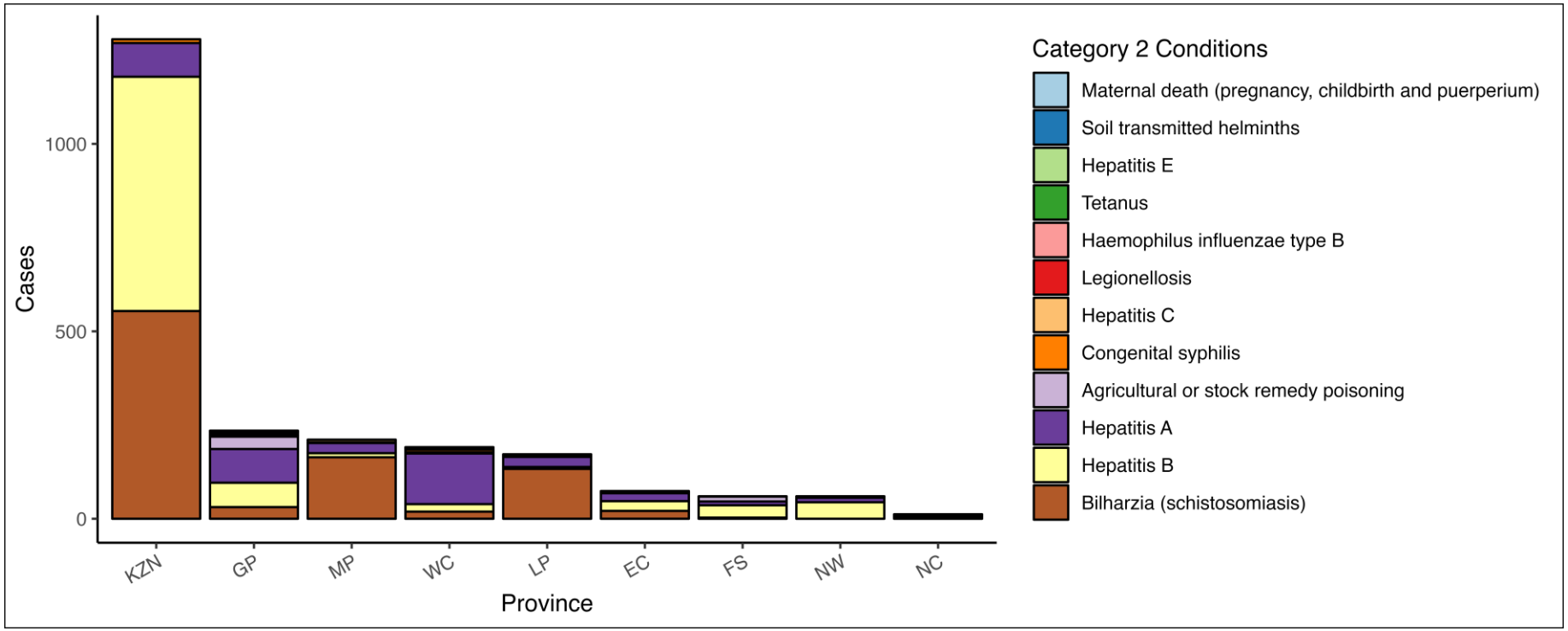

Cases per 100 000 population
2.0
1.5
1.0
0.5
0.0
FS
GP
WC
MP
LP
KZN
NC
NW
EC
Province
Waterborne illness outbreak - UNDEFINED
Acute rheumatic fever
Diphtheria
Rabies
Listeriosis
Congenital rubella syndrome
Acute Flaccid Paralysis
Enteric fever (typhoid or paratyphoid fever)
Rubella
Cholera
Food borne illness outbreak
Meningococcal Disease
Measles
Malaria
Pertussis

*Table 12:*

| | GP pop = 16 423 724 | | WC pop = 7 339 072 | | KZN pop = 11 638 800 | | FS pop = 2 931 142 | | MP pop = 4 781 724 | | LP pop = 5 978 246 | | EC pop = 6 670 808 | | NW pop = 4 246 673 | | NC pop = 1 326 036 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Waterborne illness outbreak - UNDEFINED** | | - | | - | **1** | 0.01 | | - | | - | | - | | - | | - | | - |
| **Acute rheumatic fever** | | - | **1** | 0.01 | | - | | - | | - | | - | | - | | - | | - |
| **Diphtheria** | **1** | 0.01 | | - | **2** | 0.02 | | - | | - | | - | | - | | - | | - |
| **Rabies** | **3** | 0.02 | | - | **4** | 0.03 | | - | | - | | - | **1** | 0.01 | | - | | - |
| **Listeriosis** | **3** | 0.02 | **1** | 0.01 | **3** | 0.03 | | - | | - | | - | **1** | 0.01 | | - | | - |
| **Congenital rubella syndrome** | **1** | 0.01 | **1** | 0.01 | **1** | 0.01 | | - | **2** | 0.04 | **1** | 0.02 | | - | | - | | - |
| **Acute Flaccid Paralysis** | **4** | 0.02 | **5** | 0.07 | **5** | 0.04 | | - | | - | **3** | 0.05 | | - | | - | | - |
| **Enteric fever (typhoid or paratyphoid fever)** | **11** | 0.07 | **2** | 0.03 | **4** | 0.03 | **1** | 0.03 | | - | | - | | - | **1** | 0.02 | | - |
| **Rubella** | **5** | 0.03 | **1** | 0.01 | **3** | 0.03 | **1** | 0.03 | **2** | 0.04 | | - | **1** | 0.01 | **2** | 0.05 | | - |
| **Cholera** | **4** | 0.02 | | - | **3** | 0.03 | | - | **4** | 0.08 | | - | | - | | - | **1** | 0.08 |
| **Food borne illness outbreak** | **28** | 0.17 | | - | **8** | 0.07 | | - | | - | **3** | 0.05 | | - | | - | | - |
| **Meningococcal Disease** | **4** | 0.02 | **11** | 0.15 | **2** | 0.02 | **1** | 0.03 | **1** | 0.02 | **1** | 0.02 | **3** | 0.04 | **1** | 0.02 | **2** | 0.15 |
| **Measles** | **18** | 0.11 | **12** | 0.16 | **17** | 0.15 | **1** | 0.03 | **4** | 0.08 | **11** | 0.18 | **3** | 0.04 | **2** | 0.05 | **2** | 0.15 |
| **Malaria** | **35** | 0.21 | **17** | 0.23 | **10** | 0.09 | **8** | 0.27 | **28** | 0.59 | **19** | 0.32 | **3** | 0.04 | **5** | 0.12 | **1** | 0.08 |
| **Pertussis** | **113** | 0.69 | **44** | 0.60 | **30** | 0.26 | **44** | 1.5 | **15** | 0.31 | **13** | 0.22 | **26** | 0.39 | **15** | 0.35 | **3** | 0.23 |

[1]c = cases, i = incidence

**Category 2**


Cases
1000
500
0
KZN
GP
MP
WC
LP
EC
FS
NW
NC
Province
Category 2 Conditions
Maternal death (pregnancy, childbirth and puerperium)
Soil transmitted helminths
Hepatitis E
Tetanus
Haemophilus influenzae type B
Legionellosis
Hepatitis C
Congenital syphilis
Agricultural or stock remedy poisoning
Hepatitis A
Hepatitis B
Bilharzia (schistosomiasis)

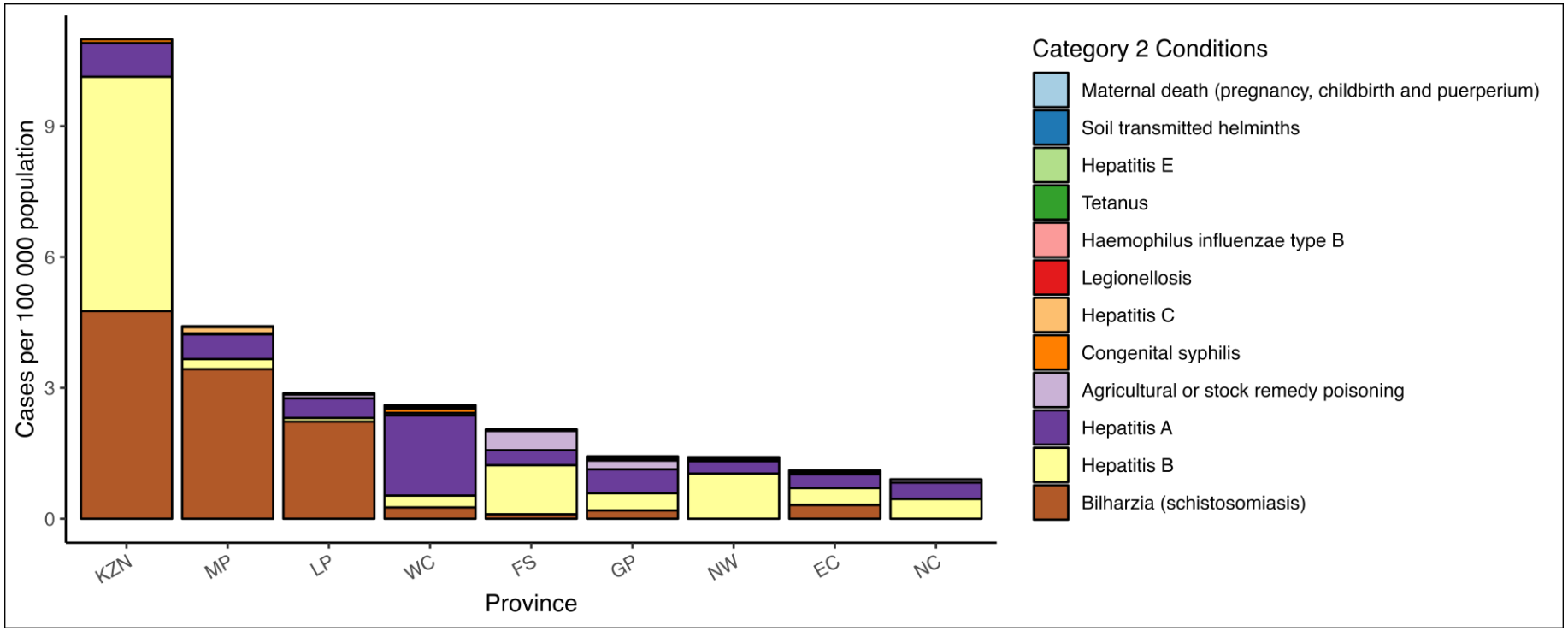



*Table 13:*

| | KZN pop = 11 638 800 | | GP pop = 16 423 724 | | MP pop = 4 781 724 | | WC pop = 7 339 072 | | LP pop = 5 978 246 | | EC pop = 6 670 808 | | FS pop = 2 931 142 | | NW pop = 4 246 673 | | NC pop = 1 326 036 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Maternal death (pregnancy, childbirth and puerperium)** | | - | **1** | 0.01 | | - | | - | | - | | - | | - | | - | | - |
| **Soil transmitted helminths** | | - | **1** | 0.01 | | - | | - | | - | | - | | - | | - | | - |
| **Hepatitis E** | | - | | - | | - | **1** | 0.01 | | - | | - | | - | | - | | - |
| **Tetanus** | | - | | - | | - | | - | | - | | - | **1** | 0.03 | | - | | - |
| **Haemophilus influenzae type B** | | - | **2** | 0.01 | | - | **2** | 0.03 | **1** | 0.02 | **2** | 0.03 | | - | | - | | - |
| **Legionellosis** | | - | **2** | 0.01 | **1** | 0.02 | **3** | 0.04 | | - | | - | | - | **1** | 0.02 | | - |

| | KZN pop = 11 638 800 | | GP pop = 16 423 724 | | MP pop = 4 781 724 | | WC pop = 7 339 072 | | LP pop = 5 978 246 | | EC pop = 6 670 808 | | FS pop = 2 931 142 | | NW pop = 4 246 673 | | NC pop = 1 326 036 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Hepatitis C** | | - | **6** | 0.04 | **7** | 0.15 | | - | | - | | - | | - | | - | | - |
| **Congenital syphilis** | **10** | 0.09 | **4** | 0.02 | **1** | 0.02 | **7** | 0.10 | **1** | 0.02 | **3** | 0.04 | | - | **2** | 0.05 | | - |
| **Agricultural or stock remedy poisoning** | | - | **33** | 0.20 | | - | **4** | 0.05 | **5** | 0.08 | **1** | 0.01 | **13** | 0.44 | **1** | 0.02 | **1** | 0.08 |
| **Hepatitis A** | **90** | 0.77 | **90** | 0.55 | **27** | 0.56 | **135** | 1.8 | **27** | 0.45 | **21** | 0.31 | **10** | 0.34 | **12** | 0.28 | **5** | 0.38 |
| **Hepatitis B** | **625** | 5.4 | **65** | 0.40 | **11** | 0.23 | **20** | 0.27 | **5** | 0.08 | **26** | 0.39 | **33** | 1.1 | **44** | 1.0 | **6** | 0.45 |
| **Bilharzia (schistosomiasis)** | **554** | 4.8 | **31** | 0.19 | **164** | 3.4 | **19** | 0.26 | **133** | 2.2 | **21** | 0.31 | **3** | 0.10 | | - | | - |

[1]c = cases, i = incidence

## Category 3

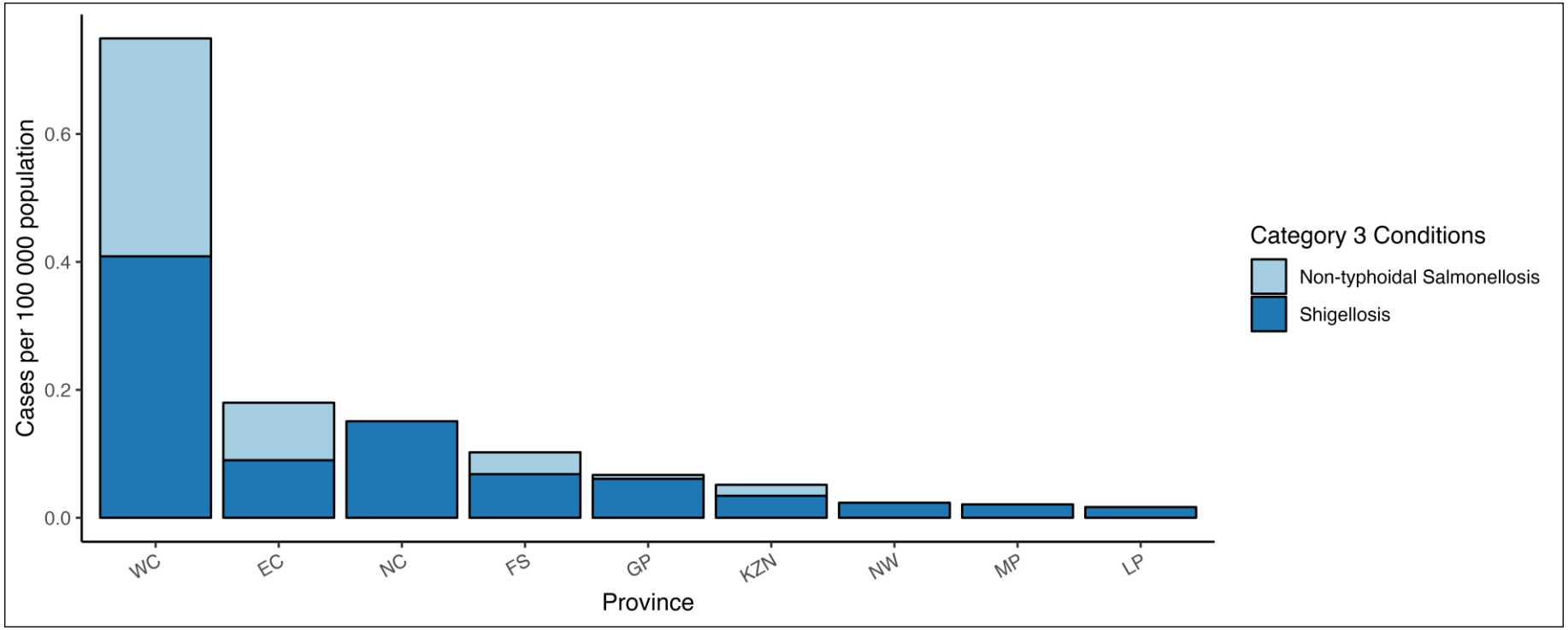


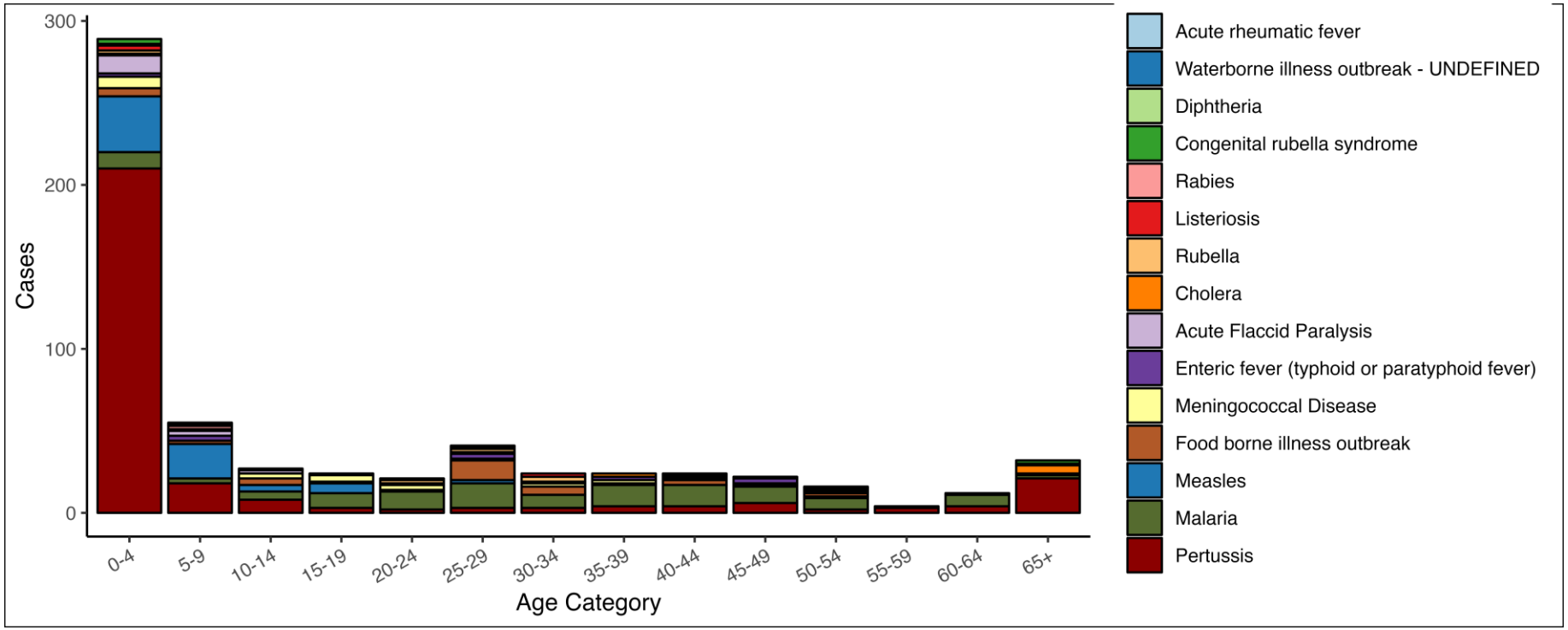

*Table 14:*

| | WC pop = 7 339 072 | | EC pop = 6 670 808 | | GP pop = 16 423 724 | | KZN pop = 11 638 800 | | FS pop = 2 931 142 | | NC pop = 1 326 036 | | LP pop = 5 978 246 | | MP pop = 4 781 724 | | NW pop = 4 246 673 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Non-typhoidal Salmonellosis** | **25** | 0.34 | **6** | 0.09 | **1** | 0.01 | **2** | 0.02 | **1** | 0.03 | | - | | - | | - | | - |
| **Shigellosis** | **30** | 0.41 | **6** | 0.09 | **10** | 0.06 | **4** | 0.03 | **2** | 0.07 | **2** | 0.15 | **1** | 0.02 | **1** | 0.02 | **1** | 0.02 |

[1]c = cases, i = incidence

**Cases and incidence by age category**

**Category 1**



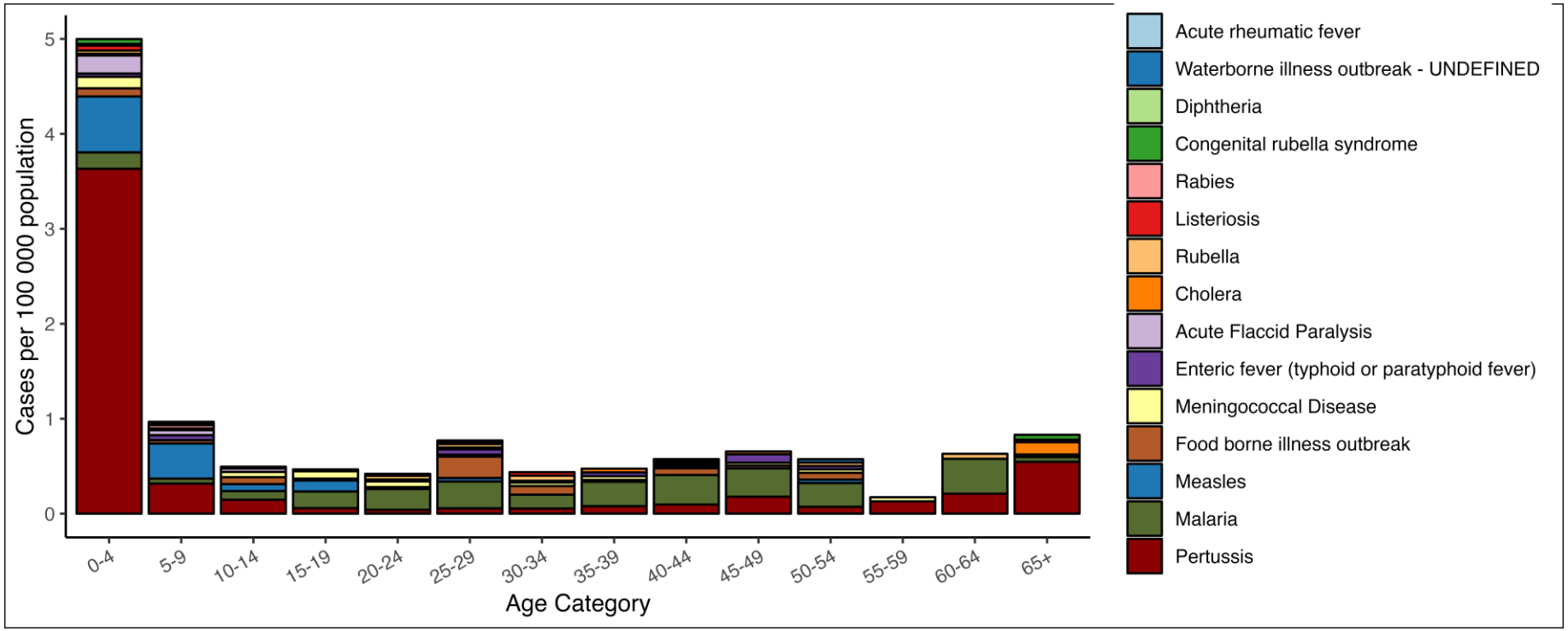
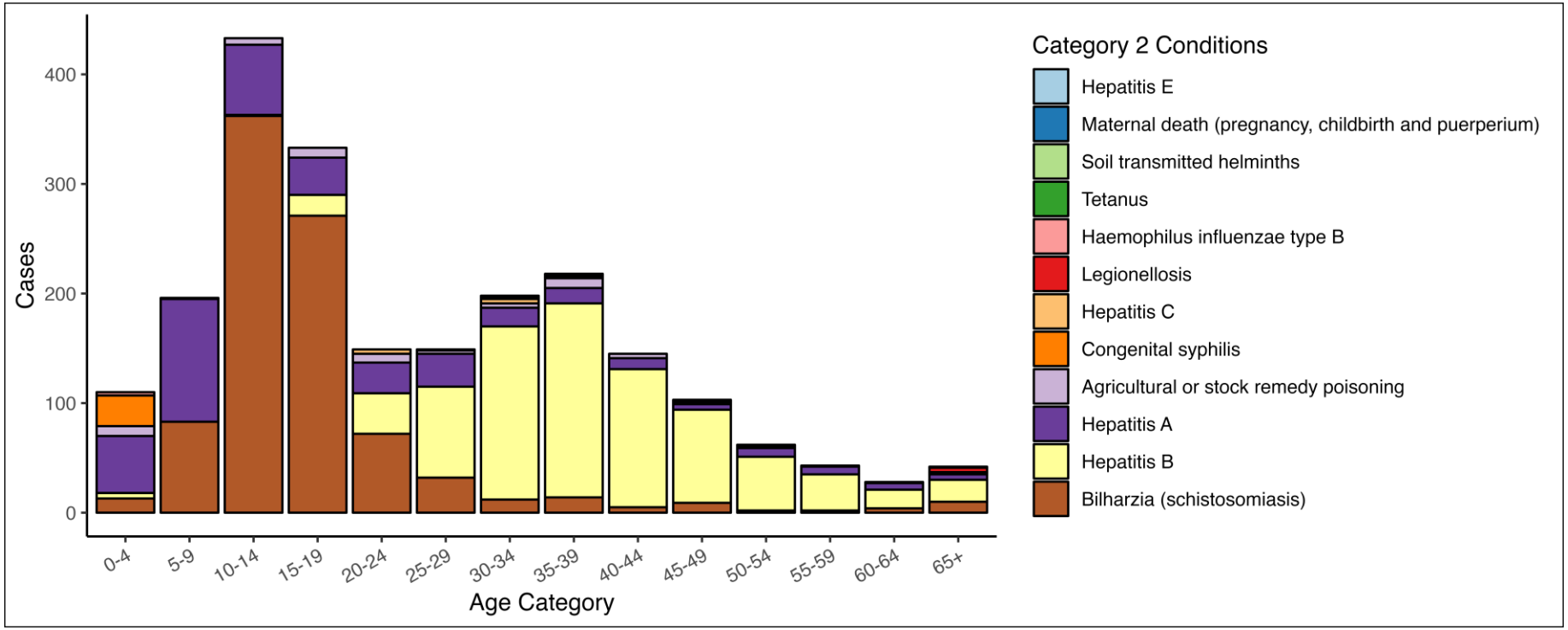

Cases per 100 000 population
0
1
2
3
4
5
0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age Category
Acute rheumatic fever
Waterborne illness outbreak - UNDEFINED
Diphtheria
Congenital rubella syndrome
Rabies
Listeriosis
Rubella
Cholera
Acute Flaccid Paralysis
Enteric fever (typhoid or paratyphoid fever)
Meningococcal Disease
Food borne illness outbreak
Measles
Malaria
Pertussis

*Table 15:*

| | 0-4 | | 5-9 | | 10-14 | | 15-19 | | 20-24 | | 25-29 | | 30-34 | | 35-39 | | 40-44 | | 45-49 | | 50-54 | | 55-59 | | 60-64 | | 65+ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Acute rheumatic fever** | | - | **1** | 0.02 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| **Waterborne illness outbreak - UNDEFINED** | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | **1** | 0.04 | | - | | - | | - |
| **Diphtheria** | | - | | - | | - | **1** | 0.02 | | - | **1** | 0.02 | | - | | - | | - | | - | | - | | - | | - | | - |
| **Congenital rubella syndrome** | **3** | 0.05 | **1** | 0.02 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | **2** | 0.05 |
| **Rabies** | **1** | 0.02 | **2** | 0.04 | **1** | 0.02 | | - | **1** | 0.02 | | - | | - | | - | **1** | 0.02 | | - | | - | | - | | - | | - |
| **Listeriosis** | **3** | 0.05 | | - | | - | | - | | - | **1** | 0.02 | **2** | 0.04 | | - | **1** | 0.02 | | - | | - | | - | | - | **1** | 0.03 |
| **Rubella** | **2** | 0.03 | | - | | - | | - | **2** | 0.04 | **2** | 0.04 | **3** | 0.05 | | - | | - | | - | **1** | 0.04 | | - | **1** | 0.05 | | - |
| **Cholera** | **1** | 0.02 | **1** | 0.02 | | - | | - | | - | **1** | 0.02 | | - | **2** | 0.04 | **1** | 0.02 | **1** | 0.03 | | - | | - | | - | **5** | 0.13 |
| **Acute Flaccid Paralysis** | **11** | 0.19 | **3** | 0.05 | **2** | 0.04 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| **Enteric fever (typhoid or paratyphoid fever)** | **2** | 0.03 | **3** | 0.05 | | - | | - | **1** | 0.02 | **3** | 0.06 | **1** | 0.02 | **2** | 0.04 | | - | **3** | 0.09 | **1** | 0.04 | | - | | - | | - |
| **Meningococcal Disease** | **7** | 0.12 | | - | **3** | 0.05 | **4** | 0.08 | **3** | 0.06 | **1** | 0.02 | **2** | 0.04 | **2** | 0.04 | **1** | 0.02 | **1** | 0.03 | **1** | 0.04 | **1** | 0.04 | | - | | - |
| **Food borne illness outbreak** | **5** | 0.09 | **2** | 0.04 | **4** | 0.07 | **1** | 0.02 | **1** | 0.02 | **12** | 0.23 | **5** | 0.09 | **1** | 0.02 | **3** | 0.07 | **1** | 0.03 | **2** | 0.07 | | - | | - | | - |
| **Measles** | **34** | 0.59 | **21** | 0.37 | **4** | 0.07 | **6** | 0.12 | | - | **2** | 0.04 | | - | | - | | - | | - | **1** | 0.04 | | - | | - | **1** | 0.03 |
| **Malaria** | **10** | 0.17 | **3** | 0.05 | **5** | 0.09 | **9** | 0.17 | **11** | 0.22 | **15** | 0.28 | **8** | 0.15 | **13** | 0.26 | **13** | 0.31 | **10** | 0.30 | **7** | 0.25 | | - | **7** | 0.37 | **2** | 0.05 |
| **Pertussis** | **210** | 3.6 | **18** | 0.32 | **8** | 0.15 | **3** | 0.06 | **2** | 0.04 | **3** | 0.06 | **3** | 0.05 | **4** | 0.08 | **4** | 0.10 | **6** | 0.18 | **2** | 0.07 | **3** | 0.13 | **4** | 0.21 | **21** | 0.55 |

[1]c = cases, i = incidence

**Category 2**


Cases
400
300
200
100
0
0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age Category
Category 2 Conditions
Hepatitis E
Maternal death (pregnancy, childbirth and puerperium)
Soil transmitted helminths
Tetanus
Haemophilus influenzae type B
Legionellosis
Hepatitis C
Congenital syphilis
Agricultural or stock remedy poisoning
Hepatitis A
Hepatitis B
Bilharzia (schistosomiasis)

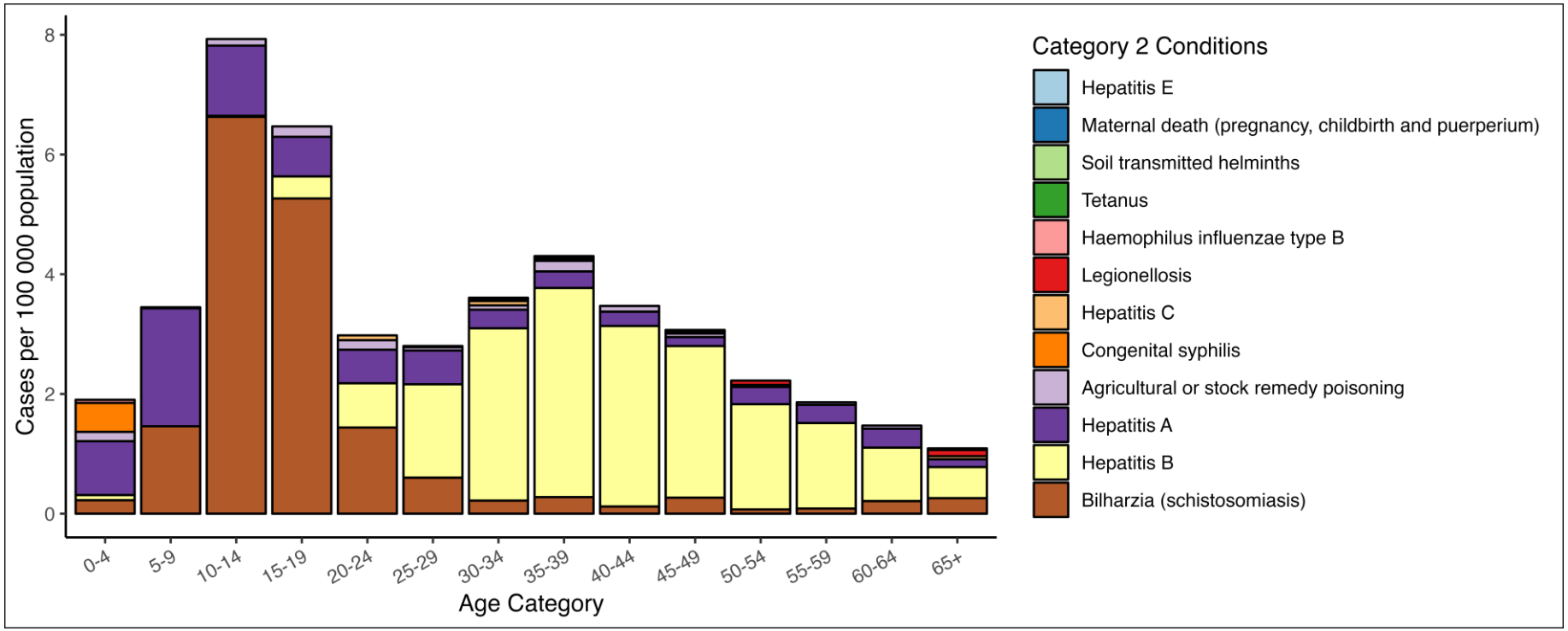
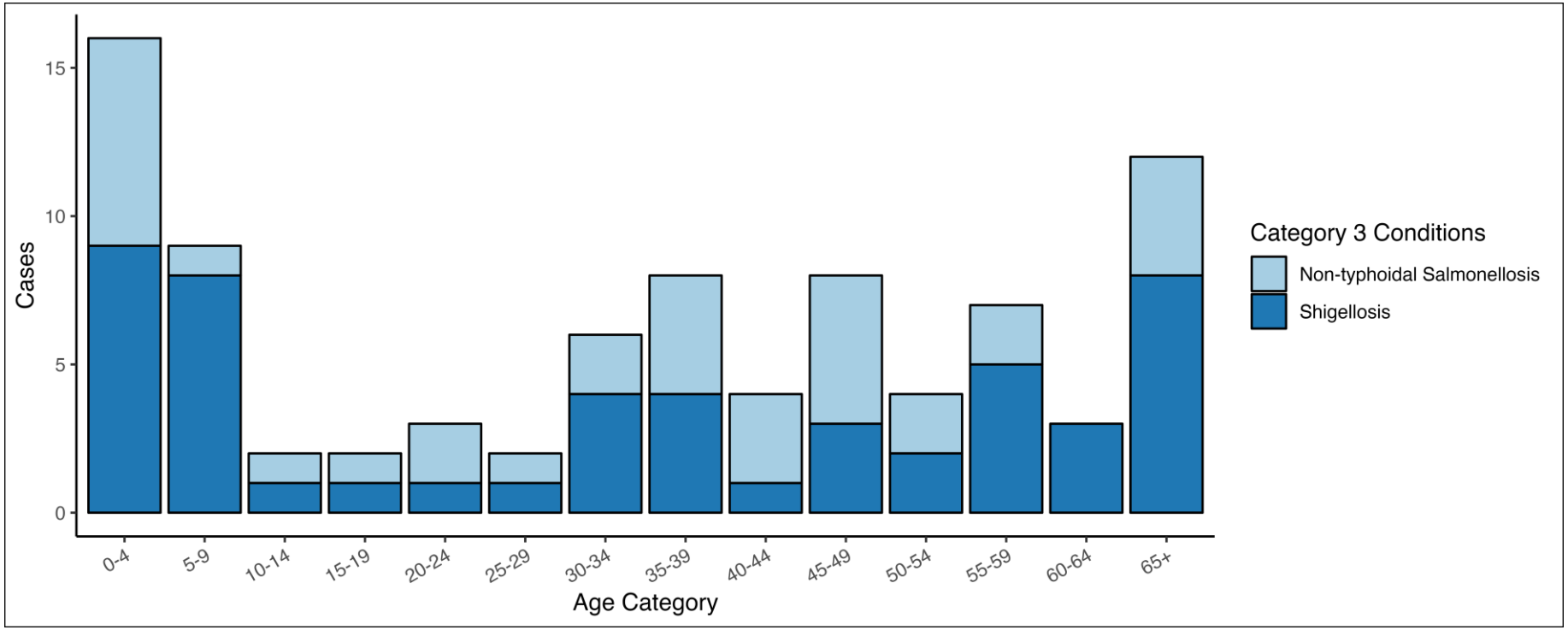

Cases per 100 000 population
8
6
4
2
0
0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age Category
Category 2 Conditions
Hepatitis E
Maternal death (pregnancy, childbirth and puerperium)
Soil transmitted helminths
Tetanus
Haemophilus influenzae type B
Legionellosis
Hepatitis C
Congenital syphilis
Agricultural or stock remedy poisoning
Hepatitis A
Hepatitis B
Bilharzia (schistosomiasis)

*Table 16:*

| | 0-4 | | 5-9 | | 10-14 | | 15-19 | | 20-24 | | 25-29 | | 30-34 | | 35-39 | | 40-44 | | 45-49 | | 50-54 | | 55-59 | | 60-64 | | 65+ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Hepatitis E** | | - | | - | | - | | - | | - | | - | | - | **1** | 0.02 | | - | | - | | - | | - | | - | | - | | - |
| **Maternal death (pregnancy, childbirth and puerperium)** | | - | | - | | - | | - | | - | | - | **1** | 0.02 | | - | | - | | - | | - | | - | | - | | - | | - |
| **Soil transmitted helminths** | | - | | - | | - | | - | | - | | - | | - | **1** | 0.02 | | - | | - | | - | | - | | - | | - | | - |
| **Tetanus** | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | **1** | 0.03 |
| **Haemophilus influenzae type B** | **3** | 0.05 | | - | | - | | - | | - | | - | **2** | 0.04 | **1** | 0.02 | | - | **1** | 0.03 | | - | | - | | - | | - | | - |
| **Legionellosis** | | - | | - | | - | | - | | - | | - | | - | **1** | 0.02 | | - | | - | **2** | 0.07 | | - | | - | **4** | 0.10 |
| **Hepatitis C** | | - | | - | | - | | - | **4** | 0.08 | **1** | 0.02 | **4** | 0.07 | | - | | - | **1** | 0.03 | **1** | 0.04 | | - | | - | **2** | 0.05 |
| **Congenital syphilis** | **28** | 0.48 | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - | | - |
| **Agricultural or stock remedy poisoning** | **9** | 0.16 | **1** | 0.02 | **6** | 0.11 | **9** | 0.17 | **8** | 0.16 | **3** | 0.06 | **4** | 0.07 | **9** | 0.18 | **4** | 0.10 | **2** | 0.06 | | - | **1** | 0.04 | **1** | 0.05 | | - |
| **Hepatitis A** | **52** | 0.90 | **112** | 2.0 | **64** | 1.2 | **34** | 0.66 | **28** | 0.56 | **30** | 0.56 | **17** | 0.31 | **14** | 0.28 | **10** | 0.24 | **5** | 0.15 | **8** | 0.29 | **7** | 0.30 | **6** | 0.32 | **5** | 0.13 |
| **Hepatitis B** | **5** | 0.09 | | - | **1** | 0.02 | **19** | 0.37 | **37** | 0.74 | **83** | 1.6 | **158** | 2.9 | **177** | 3.5 | **126** | 3.0 | **85** | 2.5 | **49** | 1.8 | **33** | 1.4 | **17** | 0.89 | **20** | 0.52 |
| **Bilharzia (schistosomiasis)** | **13** | 0.22 | **83** | 1.5 | **362** | 6.6 | **271** | 5.3 | **72** | 1.4 | **32** | 0.60 | **12** | 0.22 | **14** | 0.28 | **5** | 0.12 | **9** | 0.27 | **2** | 0.07 | **2** | 0.09 | **4** | 0.21 | **10** | 0.26 |

[1]c = cases, i = incidence

**Category 3**


Cases
15
10
5
0
0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age Category
Category 3 Conditions
Non-typhoidal Salmonellosis
Shigellosis

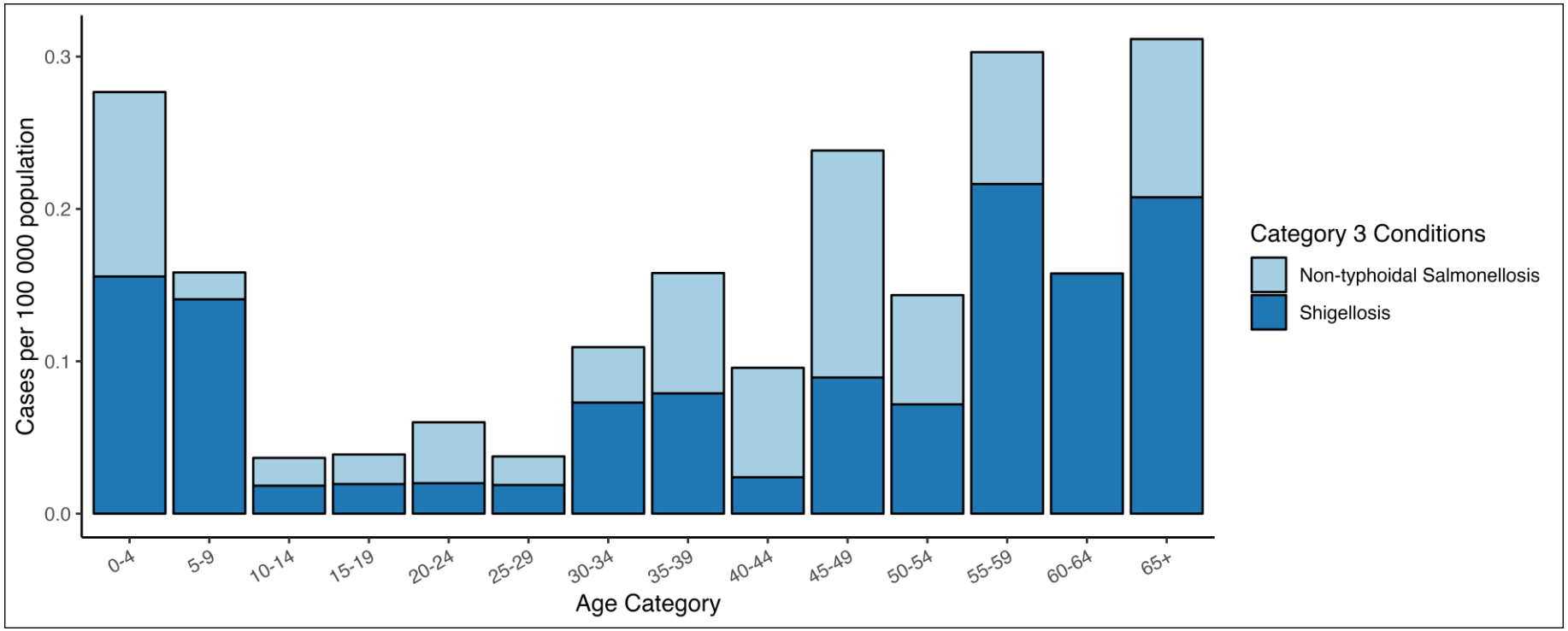

Cases per 100 000 population
0.3
0.2
0.1
0.0
0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age Category
Category 3 Conditions
Non-typhoidal Salmonellosis
Shigellosis

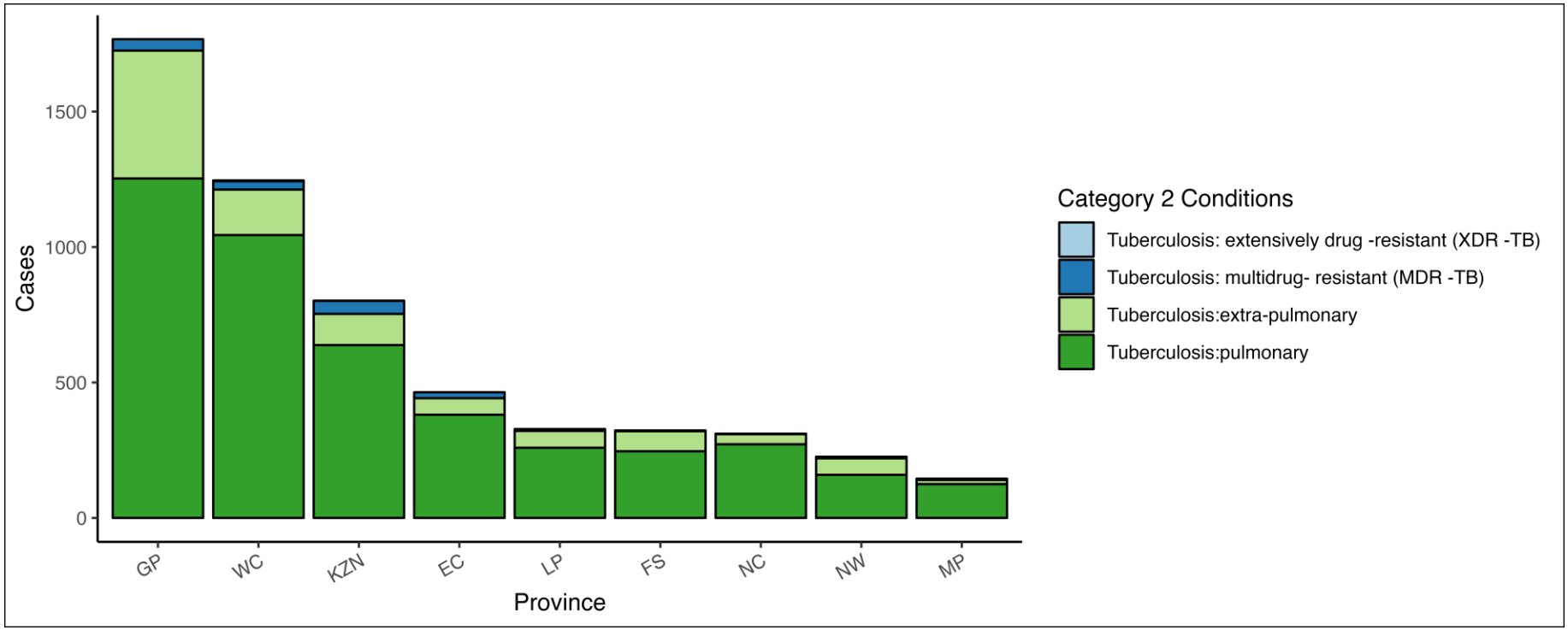
*Table 17:*

| | 0-4 | | 5-9 | | 10-14 | | 15-19 | | 20-24 | | 25-29 | | 30-34 | | 35-39 | | 40-44 | | 45-49 | | 50-54 | | 55-59 | | 60-64 | | 65+ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Non-typhoidal Salmonellosis** | **7** | 0.12 | **1** | 0.02 | **1** | 0.02 | **1** | 0.02 | **2** | 0.04 | **1** | 0.02 | **2** | 0.04 | **4** | 0.08 | **3** | 0.07 | **5** | 0.15 | **2** | 0.07 | **2** | 0.09 | | - | **4** | 0.10 |
| **Shigellosis** | **9** | 0.16 | **8** | 0.14 | **1** | 0.02 | **1** | 0.02 | **1** | 0.02 | **1** | 0.02 | **4** | 0.07 | **4** | 0.08 | **1** | 0.02 | **3** | 0.09 | **2** | 0.07 | **5** | 0.22 | **3** | 0.16 | **8** | 0.21 |

[1]c = cases, i = incidence

## Tuberculosis

### Cases and Incidence by province



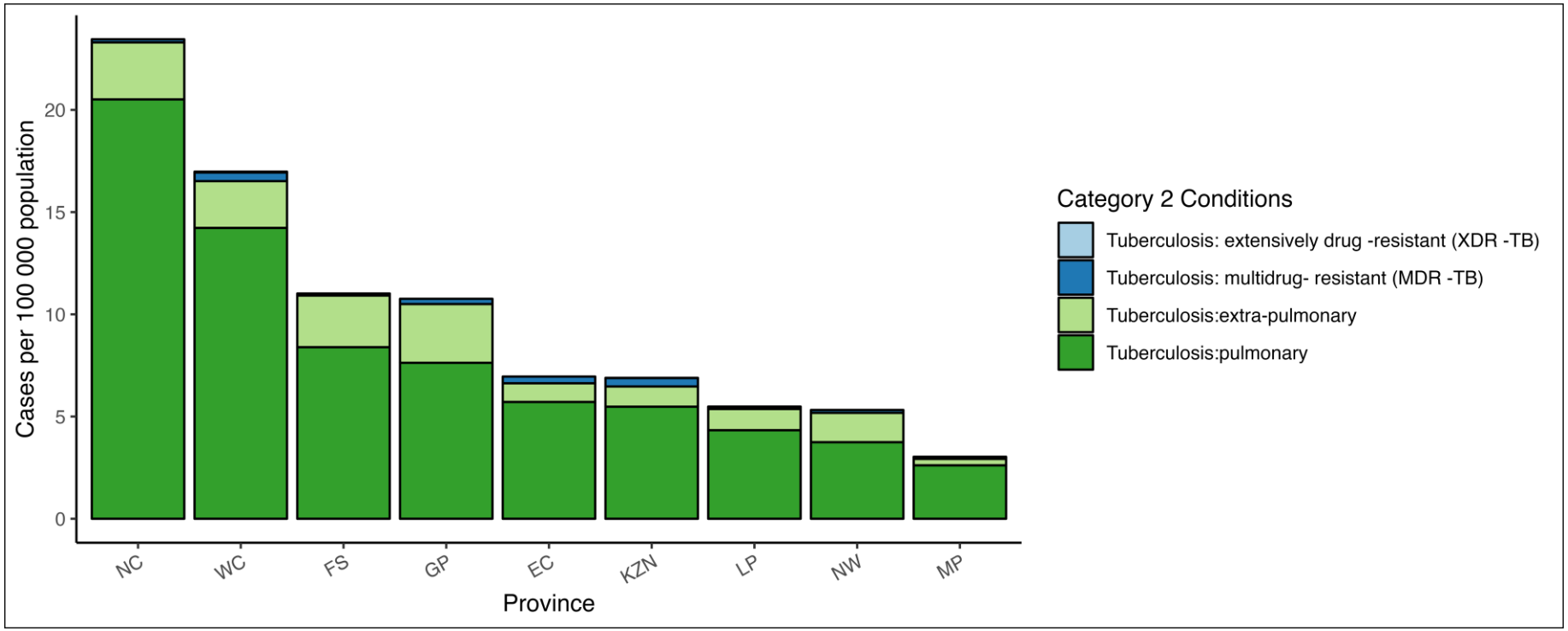
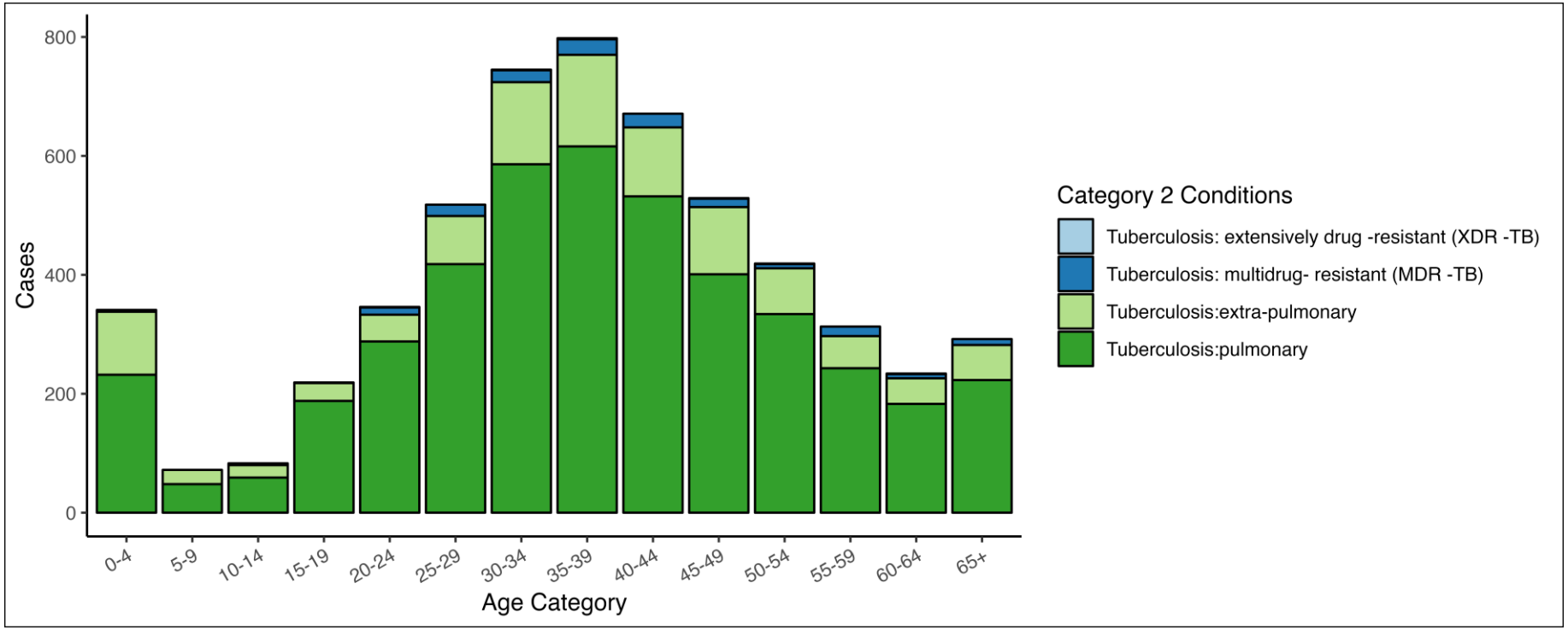

Cases per 100 000 population
0
5
10
15
20
NC
WC
FS
GP
EC
KZN
LP
NW
MP
Province
Category 2 Conditions
Tuberculosis: extensively drug -resistant (XDR -TB)
Tuberculosis: multidrug- resistant (MDR -TB)
Tuberculosis:extra-pulmonary
Tuberculosis:pulmonary

*Table 18:*

| | GP pop = 16 423 724 | | WC pop = 7 339 072 | | KZN pop = 11 638 800 | | EC pop = 6 670 808 | | LP pop = 5 978 246 | | FS pop = 2 931 142 | | NC pop = 1 326 036 | | NW pop = 4 246 673 | | MP pop = 4 781 724 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Tuberculosis: extensively drug -resistant (XDR -TB)** | | - | **3** | 0.04 | **1** | 0.01 | | - | **2** | 0.03 | | - | | - | | - | **1** | 0.02 |
| **Tuberculosis: multidrug-resistant (MDR -TB)** | **42** | 0.26 | **31** | 0.42 | **48** | 0.41 | **22** | 0.33 | **5** | 0.08 | **3** | 0.10 | **2** | 0.15 | **6** | 0.14 | **4** | 0.08 |
| **Tuberculosis: extra-pulmonary** | **472** | 2.9 | **168** | 2.3 | **115** | 0.99 | **61** | 0.91 | **62** | 1.0 | **74** | 2.5 | **37** | 2.8 | **61** | 1.4 | **15** | 0.31 |
| **Tuberculosis: pulmonary** | | 7.6 | | 14 | **638** | 5.5 | **381** | 5.7 | **259** | 4.3 | **246** | 8.4 | **272** | 21 | **159** | 3.7 | **125** | 2.6 |

[1]c = cases, i = incidence

**Cases and incidence by Age**



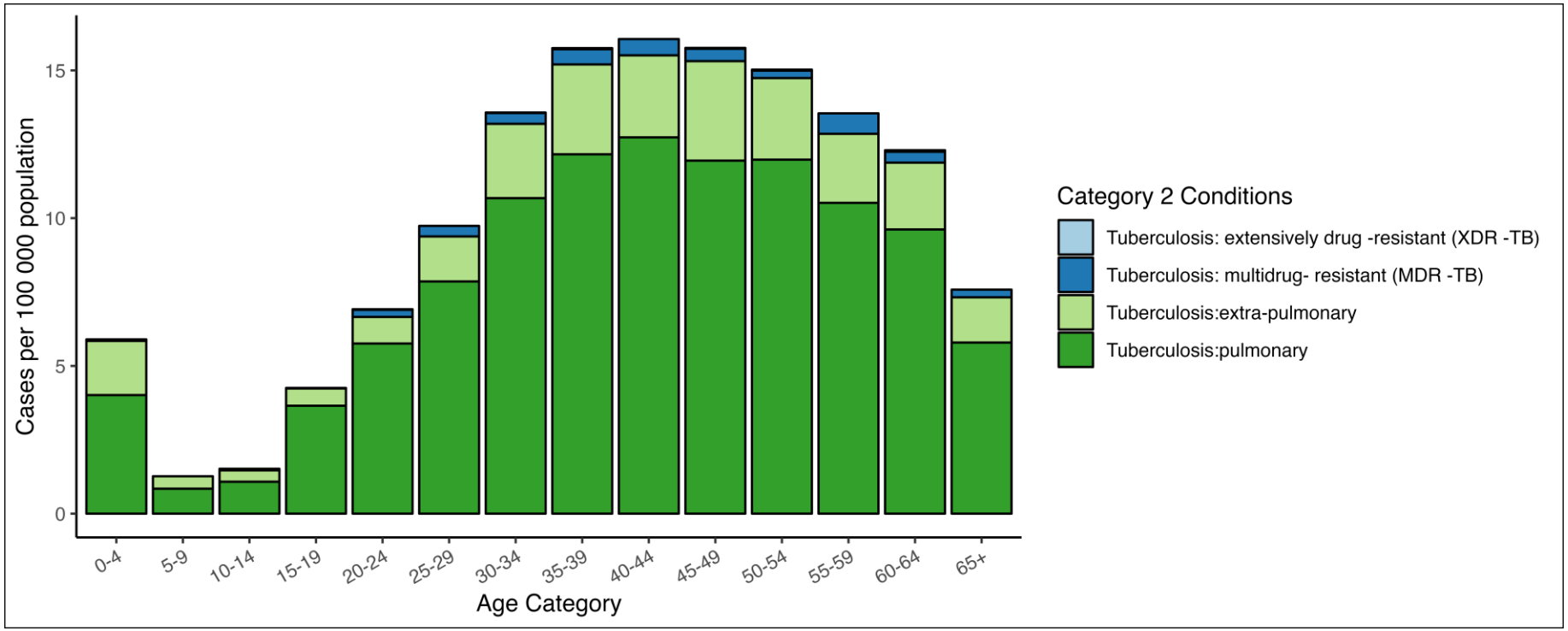

Cases per 100 000 population
15
10
5
0
0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age Category
Category 2 Conditions
Tuberculosis: extensively drug -resistant (XDR -TB)
Tuberculosis: multidrug- resistant (MDR -TB)
Tuberculosis:extra-pulmonary
Tuberculosis:pulmonary

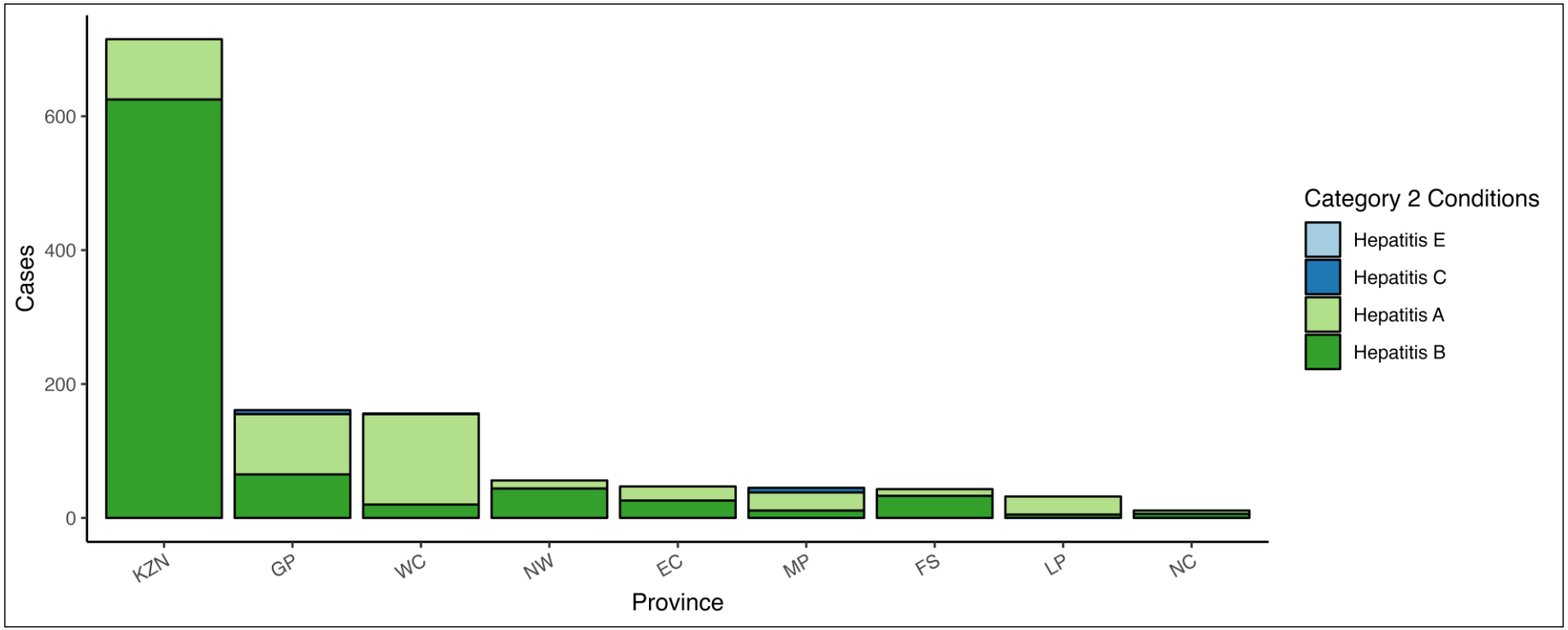
*Table 19:*

| | 0-4 | | 5-9 | | 10-14 | | 15-19 | | 20-24 | | 25-29 | | 30-34 | | 35-39 | | 40-44 | | 45-49 | | 50-54 | | 55-59 | | 60-64 | | 65+ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Tuberculosis: extensively drug -resistant (XDR -TB)** | | - | | - | | - | | - | **1** | 0.02 | | - | **1** | 0.02 | **2** | 0.04 | | - | **1** | 0.03 | **1** | 0.04 | | - | **1** | 0.05 | | - |
| **Tuberculosis: multidrug-resistant (MDR -TB)** | **3** | 0.05 | | - | **3** | 0.05 | **1** | 0.02 | **12** | 0.24 | **19** | 0.36 | **20** | 0.36 | **26** | 0.51 | **23** | 0.55 | **14** | 0.42 | **7** | 0.25 | **16** | 0.69 | **7** | 0.37 | **10** | 0.26 |
| **Tuberculosis: extra-pulmonary** | **106** | 1.8 | **24** | 0.42 | **21** | 0.38 | **30** | 0.58 | **45** | 0.90 | **81** | 1.5 | **138** | 2.5 | **154** | 3.0 | **116** | 2.8 | **113** | 3.4 | **77** | 2.8 | **54** | 2.3 | **43** | 2.3 | **59** | 1.5 |
| **Tuberculosis: pulmonary** | **232** | 4.0 | **48** | 0.84 | **59** | 1.1 | **188** | 3.7 | **288** | 5.8 | **418** | 7.9 | **586** | 11 | **616** | 12 | **532** | 13 | **401** | 12 | **334** | 12 | **243** | 11 | **183** | 9.6 | **223** | 5.8 |

[1]c = cases, i = incidence

**Hepatitis**

**Cases and incidence by Province**



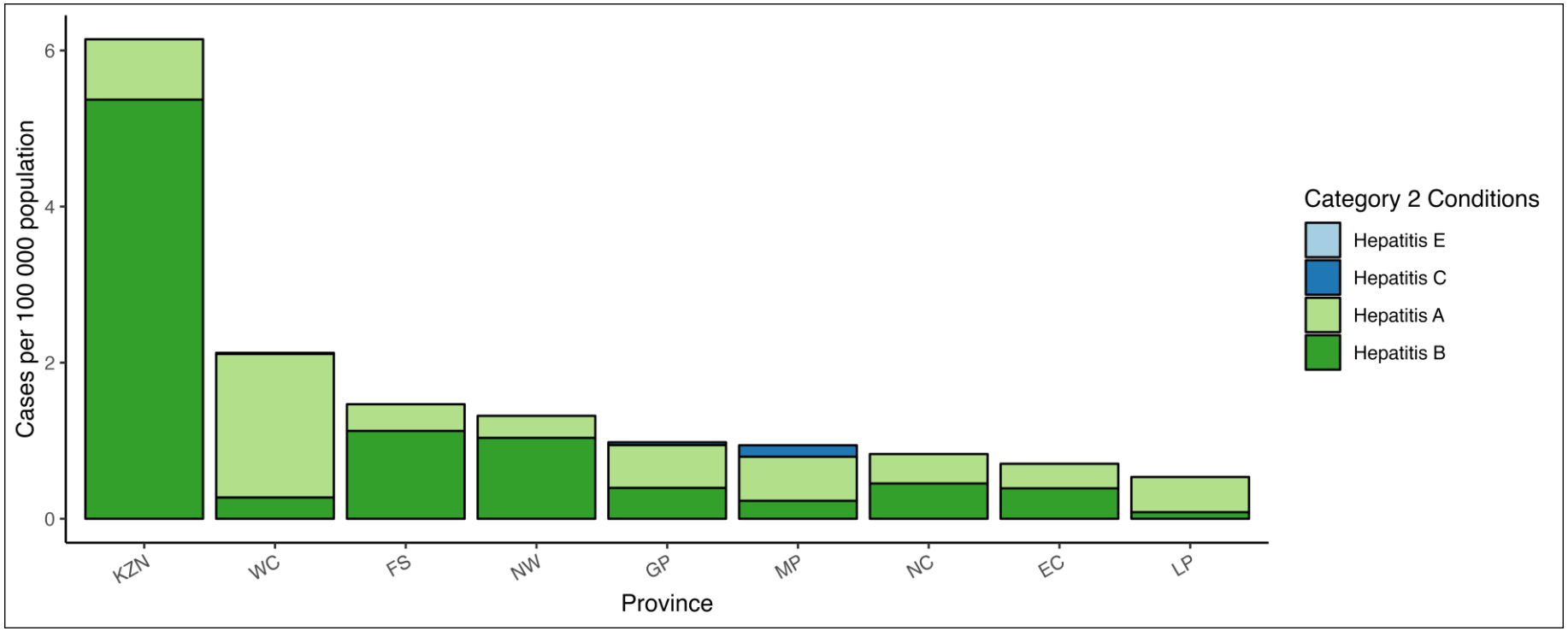
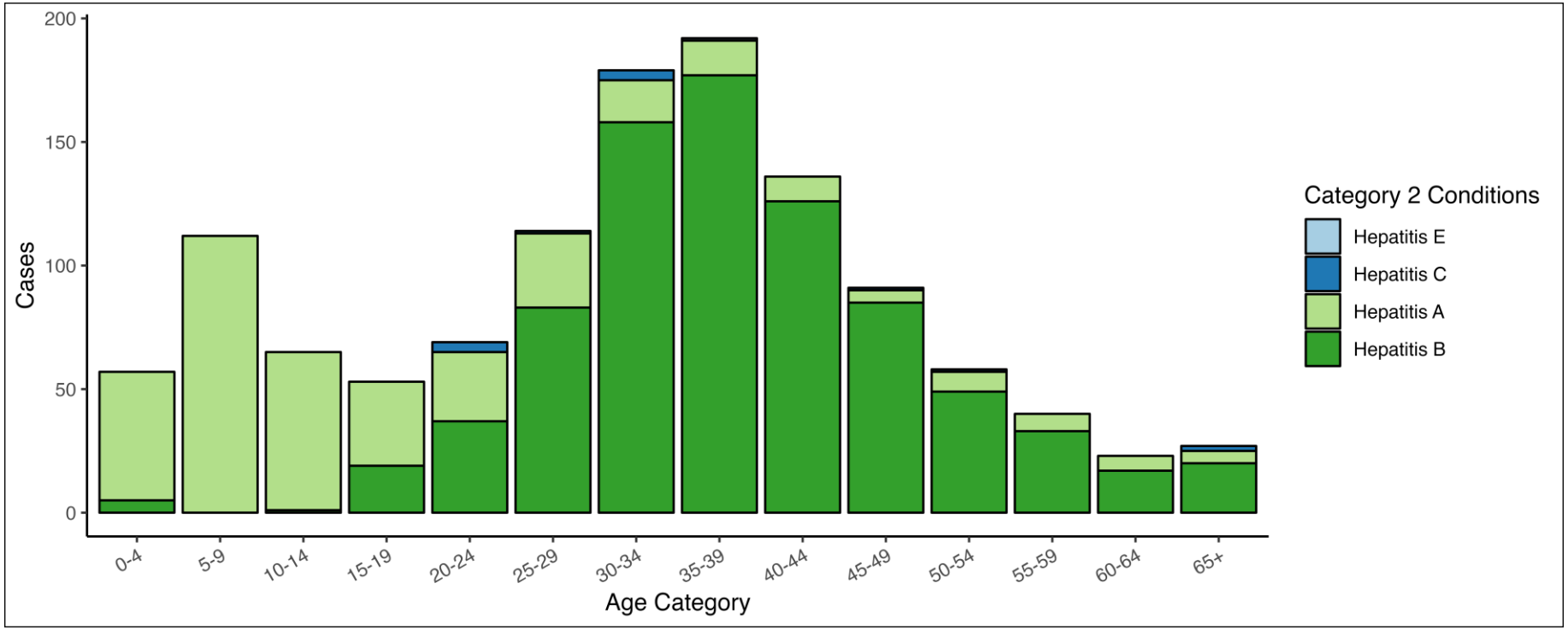

Cases per 100 000 population
6
4
2
0
KZN
WC
FS
NW
GP
MP
NC
EC
LP
Province
Category 2 Conditions
Hepatitis E
Hepatitis C
Hepatitis A
Hepatitis B

*Table 20:*

| | KZN pop = 638 800 | | GP pop = 423 724 | | WC pop = 339 072 | | NW pop = 246 673 | | EC pop = 670 808 | | MP pop = 781 724 | | FS pop = 931 142 | | LP pop = 978 246 | | NC pop = 326 036 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Hepatitis E** | | - | | - | **1** | 0.01 | | - | | - | | - | | - | | - | | - |
| **Hepatitis C** | | - | **6** | 0.04 | | - | | - | | - | **7** | 0.15 | | - | | - | | - |
| **Hepatitis A** | **90** | 0.77 | **90** | 0.55 | **135** | 1.8 | **12** | 0.28 | **21** | 0.31 | **27** | 0.56 | **10** | 0.34 | **27** | 0.45 | **5** | 0.38 |
| **Hepatitis B** | **625** | 5.4 | **65** | 0.40 | **20** | 0.27 | **44** | 1.0 | **26** | 0.39 | **11** | 0.23 | **33** | 1.1 | **5** | 0.08 | **6** | 0.45 |

[1]c = cases, i = incidence

**Cases and incidence by Age category**



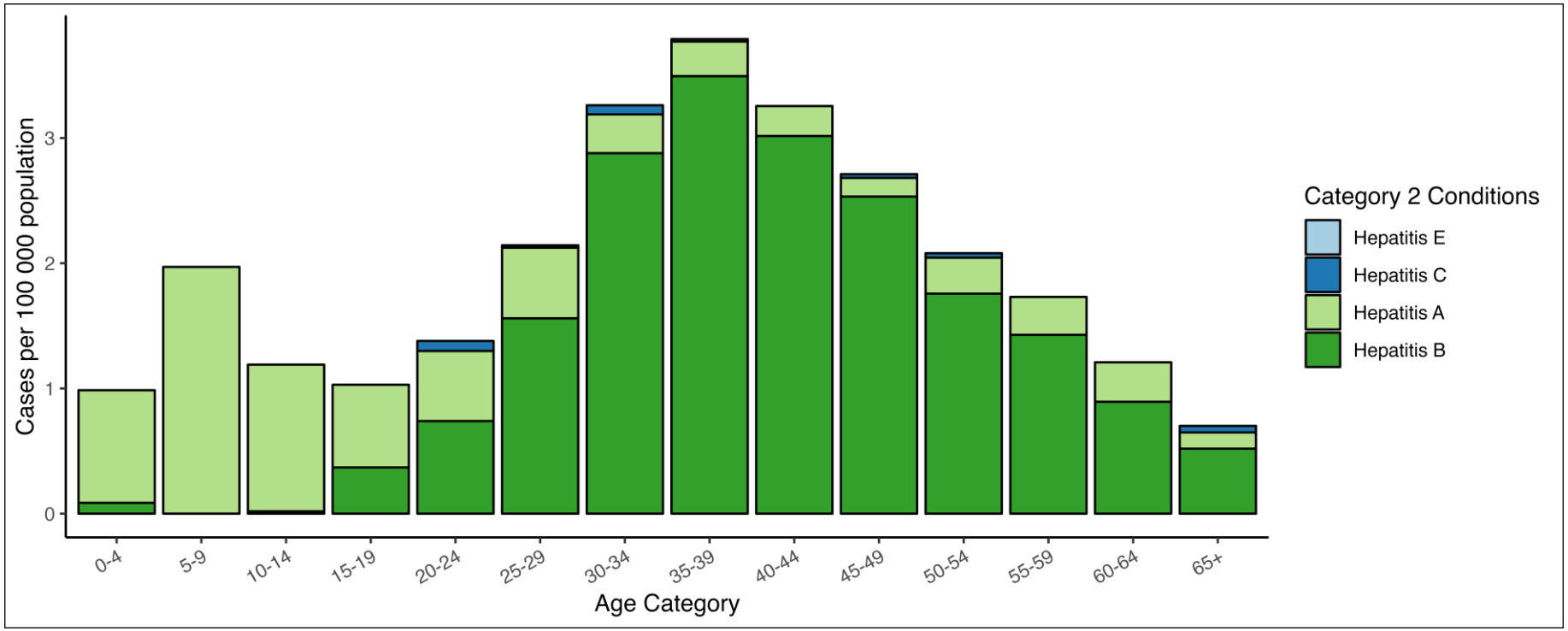

Cases per 100 000 population
0
1
2
3
0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65+
Age Category
Category 2 Conditions
Hepatitis E
Hepatitis C
Hepatitis A
Hepatitis B

*Table 21:*

| | 0-4 | | 5-9 | | 10-14 | | 15-19 | | 20-24 | | 25-29 | | 30-34 | | 35-39 | | 40-44 | | 45-49 | | 50-54 | | 55-59 | | 60-64 | | 65+ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Condition**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] | **c**[1] | **i**[1] |
| **Hepatitis E** | | - | | - | | - | | - | | - | | - | | - | **1** | 0.02 | | - | | - | | - | | - | | - | | - | | - |
| **Hepatitis C** | | - | | - | | - | | - | **4** | 0.08 | **1** | 0.02 | **4** | 0.07 | | - | | - | **1** | 0.03 | **1** | 0.04 | | - | | - | **2** | 0.05 |
| **Hepatitis A** | **52** | 0.90 | **112** | 2.0 | **64** | 1.2 | **34** | 0.66 | **28** | 0.56 | **30** | 0.56 | **17** | 0.31 | **14** | 0.28 | **10** | 0.24 | **5** | 0.15 | **8** | 0.29 | **7** | 0.30 | **6** | 0.32 | **5** | 0.13 |
| **Hepatitis B** | **5** | 0.09 | | - | **1** | 0.02 | **19** | 0.37 | **37** | 0.74 | **83** | 1.6 | **158** | 2.9 | **177** | 3.5 | **126** | 3.0 | **85** | 2.5 | **49** | 1.8 | **33** | 1.4 | **17** | 0.89 | **20** | 0.52 |

[1]c = cases, i = incidence

**END**