

# Overview of Crimean Congo Hemorrhagic Fever in Iraq

Epidemiological Week 14-2025



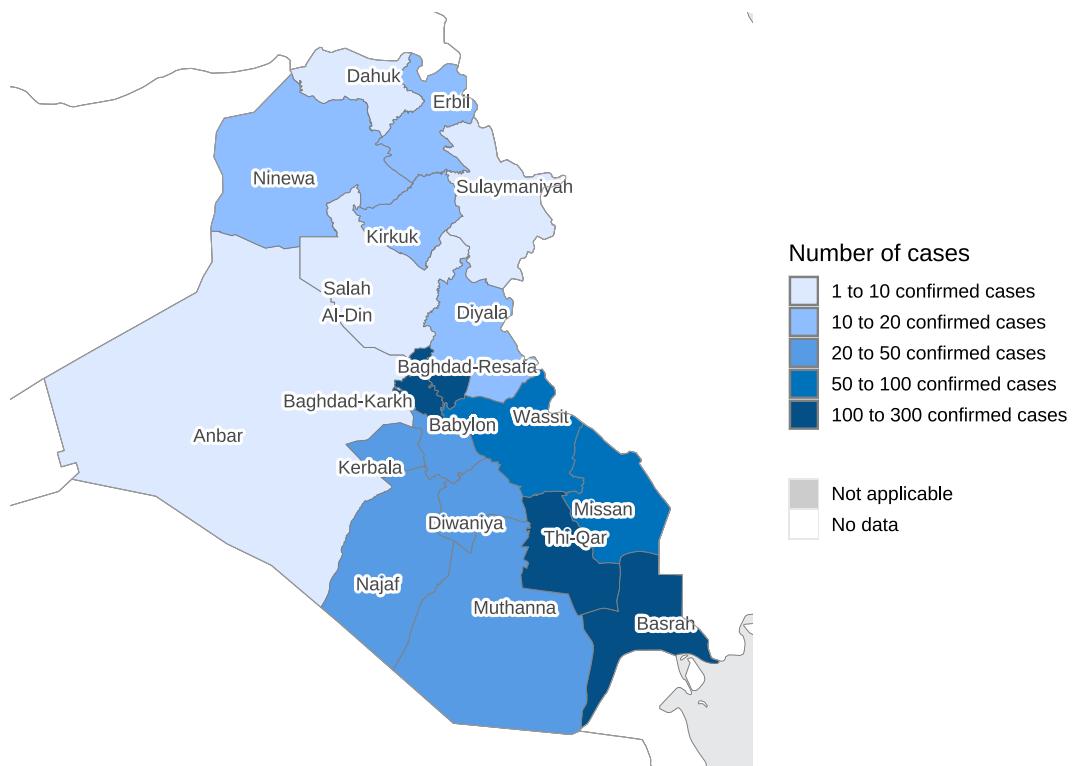
## Notes

- Data are based on the available situation reports from **Iraq CDC**.

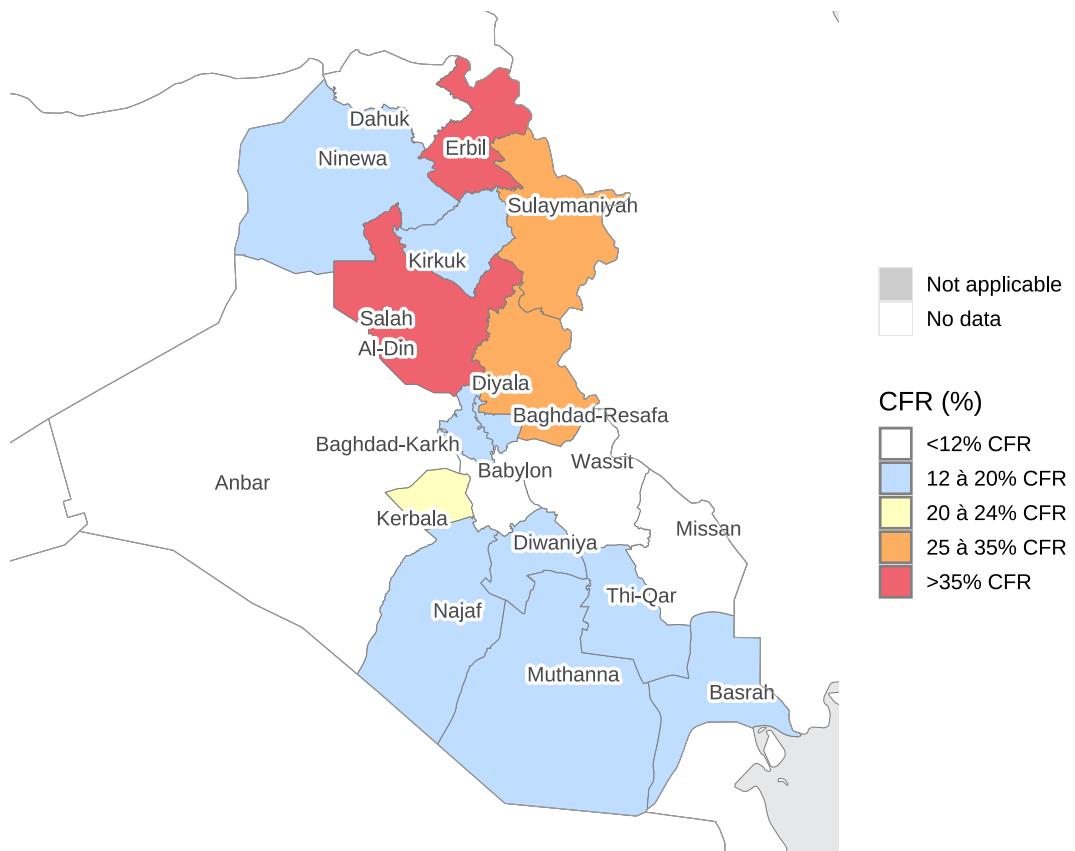
## Key Highlights

- **915 total cases** in 2022-2023.
- **152 deaths** in 2022-2023.
- **17% overall CFR** in 2022-2023.

## CCHF Cases



## Cases Fatality Rates (%)



# 1 CCHF Situation, Iraq 2022-2023



## Overall burden of CCHF in Iraq

|         | Year   | Deaths | Cases | CFR (%) |
|---------|--------|--------|-------|---------|
| 2022    | 71.00  | 353.00 | 20.1% |         |
| 2023    | 81.00  | 562.00 | 14.4% |         |
| Overall | 152.00 | 915.00 | 16.6% |         |

- In 2023, **Erbil** reported the highest case fatality rate at **42.9%**.
- In 2022, **Salah Al-Din** reported the highest case fatality rate at **100.0%**.
- Majority in **central** and **southern governorates**.
- Seasonal pattern with peak around **April–July**.

## CCHF dynamics in 2022

Table 2: Burden of CCHF in Iraq in 2022

| Indicator          | January | February | March | April | May  | June | July | August | September | October | November | December | Overall | Trends  |
|--------------------|---------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|---------|---|
| Cases              | 0       | 0        | 2     | 33    | 103  | 90   | 48   | 22     | 19        | 16      | 18       | 2        | 353.0   |  |
| Deaths             | 0       | 0        | 0     | 8     | 18   | 13   | 12   | 5      | 7         | 5       | 3        | 0        | 71.0    |  |
| Deaths percentage  | NaN     | NaN      | 0     | 24.2  | 17.5 | 14.4 | 25   | 22.7   | 36.8      | 31.2    | 16.7     | 0        | 20.1    |  |
| Females            | 0       | 0        | 0     | 9     | 43   | 39   | 17   | 10     | 7         | 7       | 3        | 1        | 136.0   |  |
| Males              | 0       | 0        | 2     | 24    | 60   | 51   | 31   | 12     | 12        | 9       | 15       | 1        | 217.0   |  |
| Females percentage | NaN     | NaN      | 0     | 27.3  | 41.7 | 43.3 | 35.4 | 45.5   | 36.8      | 43.8    | 16.7     | 50       | 38.5    |  |

Source: Iraq CDC

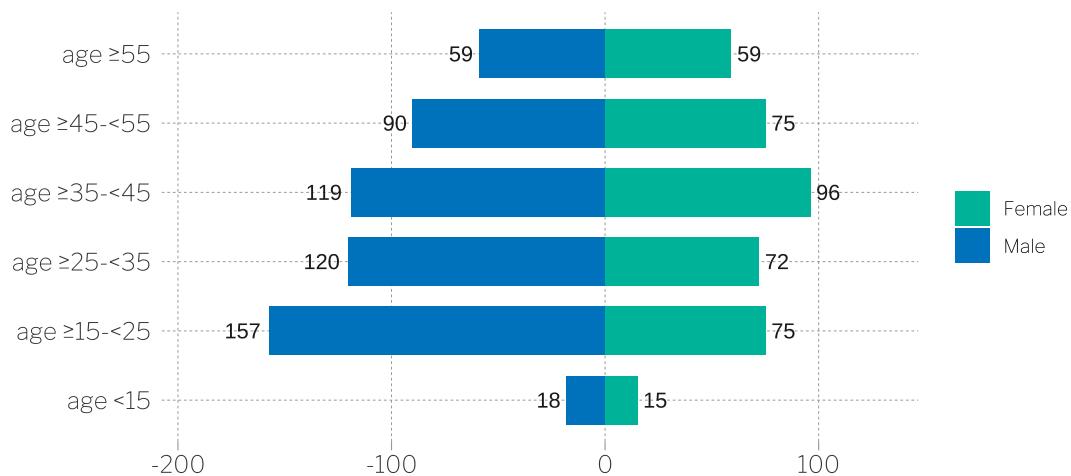
## CCHF dynamics in 2023

Table 3: Burden of CCHF in Iraq in 2023

| Indicator          | January | February | March | April | May  | June | July | August | September | October | November | December | Overall | Trends  |
|--------------------|---------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|---------|---|
| Cases              | 0       | 2        | 9     | 41    | 110  | 135  | 137  | 53     | 29        | 26      | 16       | 2.0      | 560.0   |  |
| Deaths             | 0       | 1        | 4     | 3     | 15   | 19   | 16   | 3      | 6         | 7       | 5        | 1.0      | 80.0    |  |
| Deaths percentage  | NaN     | 50       | 44.4  | 7.3   | 13.6 | 14.1 | 11.7 | 5.7    | 20.7      | 26.9    | 31.2     | 50.0     | 14.3    |  |
| Females            | 0       | 0        | 3     | 18    | 45   | 61   | 53   | 25     | 12        | 12      | 7        | 0.5      | 236.5   |  |
| Males              | 0       | 2        | 6     | 23    | 65   | 74   | 84   | 28     | 17        | 14      | 9        | 1.5      | 323.5   |  |
| Females percentage | NaN     | 0        | 33.3  | 43.9  | 40.9 | 45.2 | 38.7 | 47.2   | 41.4      | 46.2    | 43.8     | 25.0     | 42.2    |  |

Source: Iraq CDC

## Age and Sex distribution



Source: Iraq CDC

## Population Characteristics

| Characteristic     | Cured N = 799        | Death N = 156        | p-value          |
|--------------------|----------------------|----------------------|------------------|
| <b>Age group</b>   |                      |                      | <b>0.051</b>     |
| <15                | 33/799 (4.1%)        | 0/156 (0%)           |                  |
| age ≥15-<25        | 202/799 (25%)        | 30/156 (19%)         |                  |
| age ≥25-<35        | 155/799 (19%)        | 37/156 (24%)         |                  |
| age ≥35-<45        | 177/799 (22%)        | 38/156 (24%)         |                  |
| age ≥45-<55        | 133/799 (17%)        | 32/156 (21%)         |                  |
| age ≥55            | 99/799 (12%)         | 19/156 (12%)         |                  |
| <b>Sex</b>         |                      |                      | <b>0.7</b>       |
| Female             | 330/799 (41%)        | 62/156 (40%)         |                  |
| Male               | 469/799 (59%)        | 94/156 (60%)         |                  |
| <b>Age</b>         |                      |                      | <b>0.027</b>     |
| Median (Min, Max)  | 35 (1, 90)           | 38 (15, 78)          |                  |
| <b>Fever</b>       | <b>776/799 (97%)</b> | <b>150/156 (96%)</b> | <b>0.5</b>       |
| <b>Hemorrhagic</b> | <b>260/799 (33%)</b> | <b>80/156 (51%)</b>  | <b>&lt;0.001</b> |
| <b>Rural/Urban</b> |                      |                      | <b>0.013</b>     |
| Rural              | 232/494 (47%)        | 31/82 (38%)          |                  |
| Semi-Urban         | 61/494 (12%)         | 20/82 (24%)          |                  |
| Urban              | 201/494 (41%)        | 31/82 (38%)          |                  |
| <b>Ribavirin</b>   | <b>172/457 (38%)</b> | <b>19/79 (24%)</b>   | <b>0.020</b>     |
| <b>Tick bite</b>   | <b>144/794 (18%)</b> | <b>32/155 (21%)</b>  | <b>0.5</b>       |

Source: Iraq CDC

## The effect of seasonality on the CCHF incidence



Source: Iraq CDC

- In 2022-2023, a total of **3546 suspected CCHF patients** attended an hospital in Iraq.
- CCHF diagnosis was **confirmed in 955** (27%) cases, 915 by RT-PCR, 40 by serology only.

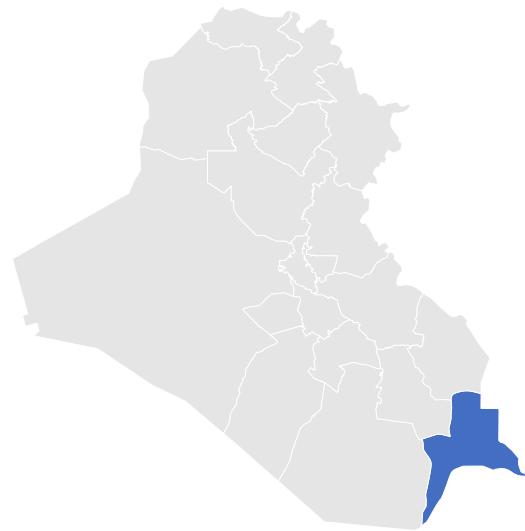
## Number of CCHF confirmed cases by outcome and CFR per year



## Cases by Ct values and CFR (%)



## 2 CCHF Situation in Basrah



### CCHF dynamics in Basrah

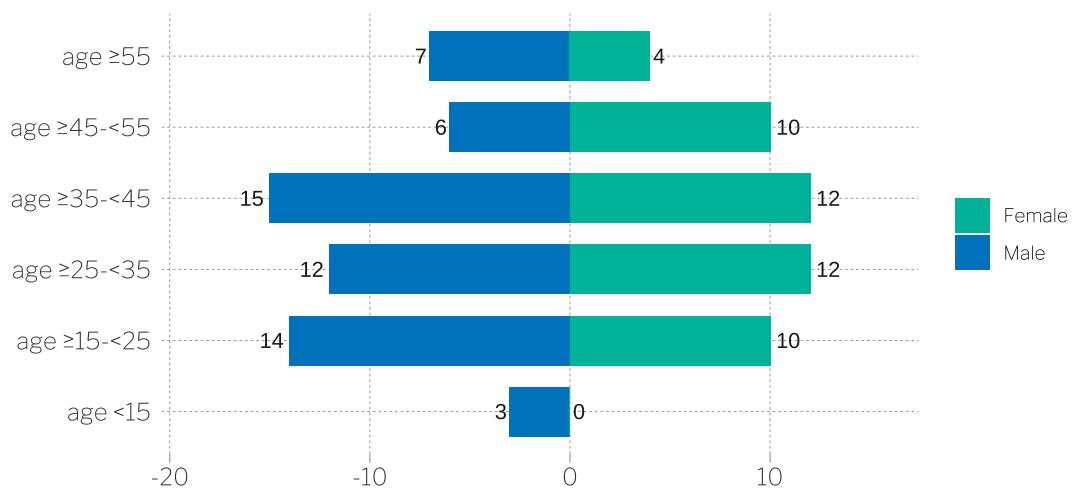
Table 5: Burden of CCHF in Basrah in 2022

| Indicator                 | January | February | March | April | May | June | July | August | September | October | November | December | Overall | Trends  |
|---------------------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|---------|---|
| <b>Cases</b>              | 0       | 0        | 0     | 0     | 3   | 3    | 5    | 2      | 1         | 1       | 1        | 1        | 17.0    |  |
| <b>Deaths</b>             | 0       | 0        | 0     | 0     | 0   | 0    | 1    | 0      | 0         | 0       | 0        | 0        | 1.0     |  |
| <b>Deaths percentage</b>  | NaN     | NaN      | NaN   | NaN   | 0   | 0    | 20   | 0      | 0         | 0       | 0        | 0        | 5.9     |  |
| <b>Females</b>            | 0       | 0        | 0     | 0     | 0   | 1    | 0    | 1      | 0         | 1       | 0        | 1        | 4.0     |  |
| <b>Males</b>              | 0       | 0        | 0     | 0     | 3   | 2    | 5    | 1      | 1         | 0       | 1        | 0        | 13.0    |  |
| <b>Females percentage</b> | NaN     | NaN      | NaN   | NaN   | 0   | 33.3 | 0    | 50     | 0         | 100     | 0        | 100      | 23.5    |  |

Table 6: Burden of CCHF in Basrah in 2023

| Indicator                 | January | February | March | April | May  | June | July | August | September | October | November | December | Overall | Trends  |
|---------------------------|---------|----------|-------|-------|------|------|------|--------|-----------|---------|----------|----------|---------|---|
| <b>Cases</b>              | 0       | 0        | 3     | 11    | 15   | 14   | 23   | 8      | 3         | 3       | 3        | 1        | 84.0    |  |
| <b>Deaths</b>             | 0       | 0        | 0     | 0     | 4    | 4    | 3    | 0      | 0         | 1       | 1        | 0        | 13.0    |  |
| <b>Deaths percentage</b>  | NaN     | NaN      | 0     | 0     | 26.7 | 28.6 | 13   | 0      | 0         | 33.3    | 33.3     | 0        | 15.5    |  |
| <b>Females</b>            | 0       | 0        | 1     | 5     | 9    | 5    | 14   | 2      | 1         | 1       | 2        | 0        | 40.0    |  |
| <b>Males</b>              | 0       | 0        | 2     | 6     | 6    | 9    | 9    | 6      | 2         | 2       | 1        | 1        | 44.0    |  |
| <b>Females percentage</b> | NaN     | NaN      | 33.3  | 45.5  | 60   | 35.7 | 60.9 | 25     | 33.3      | 33.3    | 66.7     | 0        | 47.6    |  |

## Age and Sex distribution

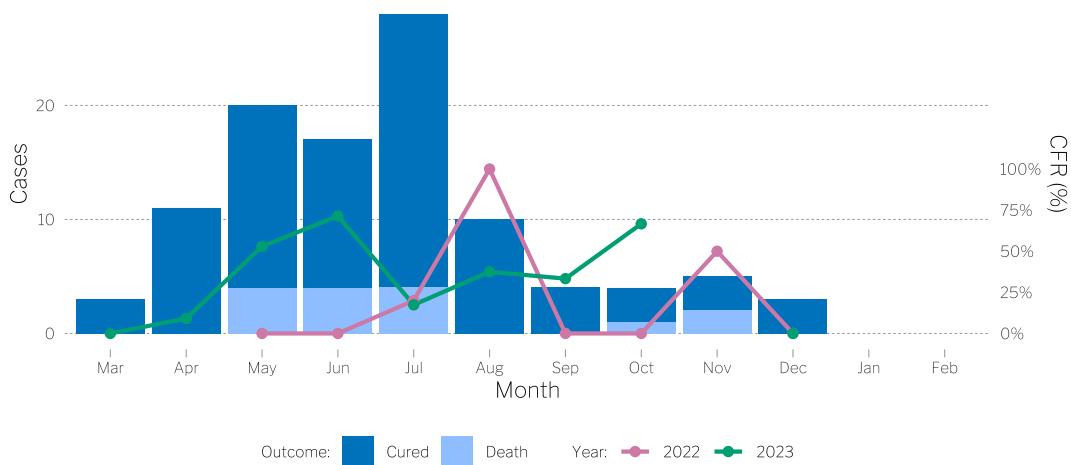


## Population Characteristics in Basrah

| Characteristic     | Cured N = 90       | Death N = 15   | p-value |
|--------------------|--------------------|----------------|---------|
| <b>Age group</b>   |                    |                |         |
| <15                | 3/90 (3.3%)        | 0/15 (0%)      |         |
| age ≥15-<25        | 23/90 (26%)        | 1/15 (6.7%)    |         |
| age ≥25-<35        | 21/90 (23%)        | 3/15 (20%)     |         |
| age ≥35-<45        | 22/90 (24%)        | 5/15 (33%)     |         |
| age ≥45-<55        | 14/90 (16%)        | 2/15 (13%)     |         |
| age ≥55            | 7/90 (7.8%)        | 4/15 (27%)     |         |
| <b>Sex</b>         |                    |                |         |
| Female             | 42/90 (47%)        | 6/15 (40%)     |         |
| Male               | 48/90 (53%)        | 9/15 (60%)     |         |
| <b>Age</b>         |                    |                |         |
| Median (Min, Max)  | 33 (12, 70)        | 42 (24, 75)    | 0.016   |
| <b>Fever</b>       |                    |                |         |
| yes                | 90/90 (100%)       | 15/15 (100%)   |         |
| <b>Hemorrhagic</b> |                    |                |         |
| <b>36/90 (40%)</b> | <b>6/15 (40%)</b>  | <b>&gt;0.9</b> |         |
| <b>Rural/Urban</b> |                    |                |         |
| Rural              | 35/73 (48%)        | 4/13 (31%)     |         |
| Semi-Urban         | 12/73 (16%)        | 4/13 (31%)     |         |
| Urban              | 26/73 (36%)        | 5/13 (38%)     |         |
| <b>Ribavirin</b>   |                    |                |         |
| <b>57/72 (79%)</b> | <b>10/13 (77%)</b> | <b>&gt;0.9</b> |         |
| <b>Tick bite</b>   |                    |                |         |
| <b>10/90 (11%)</b> | <b>2/15 (13%)</b>  | <b>0.7</b>     |         |

Source: Iraq CDC

## CCHF confirmed cases by outcome and CFR per year in Basrah



## Cases by Ct values and CFR (%) in Basrah

