**Prevalence of water-related diseases and ground/surface water faecal contamination, in a suburban municipality of Kinshasa (Democratic Republic of the Congo)**

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**Supporting information**

Number of pages : 4 (S1-S4)

Number of table : 2

Number of figures : 1

**Table S1.** Values of physicochemical parameters of water samples from wells and streams during the dry season (dry) and wet season (wet)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sampling Sites | | T (°C) | | pH | | EC (µS.cm-1) | | O2 (mg L-1) | |
|  | | dry | wet | dry | wet | dry | wet | dry | wet |
| Managed wells | F1 | 26.70 | 28.5 | 5.85 | 5.35 | 1044 | 689 | 7.00 | 7.35 |
| F2 | 27.40 | 28.10 | 5.50 | 5.70 | 902.5 | 462.50 | 6.30 | 5.95 |
| Unmanaged wells | P1 | 28.25 | 30.00 | 6.10 | 6.55 | 1167.50 | 498.00 | 2.10 | 4.15 |
| P2 | 26.90 | 28.00 | 6.25 | 6.50 | 941.00 | 931.00 | 2.06 | 3.50 |
| P3 | 26.55 | 27.85 | 6.45 | 6.85 | 844.00 | 711.5 | 2.00 | 3.45 |
| P4 | 25.40 | 29.45 | 6.05 | 6.30 | 1257.50 | 790.00 | 2.35 | 2.80 |
| Streams | S1 | 27.15 | 28.00 | 5.75 | 6.70 | 1207.00 | 916.50 | 3.75 | 3.00 |
| S2 | 26.70 | 28.25 | 6.15 | 5.95 | 842.50 | 959.50 | 2.95 | 3.65 |
| S3 | 27.60 | 29.3 | 6.05 | 6.35 | 987.50 | 789.50 | 3.06 | 4.95 |
| Minimum in wells | | 25.40 | 27.85 | 6.05 | 5.40 | 844.00 | 575.00 | 2.00 | 2.90 |
| Maximum in wells | | 28.25 | 30.00 | 6.45 | 6.90 | 1257.00 | 985.00 | 2.35 | 4.20 |
| Mean in wells | | 26.78 | 28.83 | 6.21 | 6.55 | 1052.50 | 732.62 | 2.13 | 3.48 |
| SD in wells | | 1.17 | 1.06 | 0.18 | 0.23 | 192.49 | 180.87 | 0.25 | 0.55 |
| Minimum in streams | | 26.70 | 28.00 | 5.75 | 5.95 | 842.00 | 789.00 | 2.95 | 3.00 |
| Maximum in streams | | 27.60 | 29.30 | 6.15 | 6.70 | 1207.00 | 959.00 | 3.75 | 4.95 |
| Mean in streams | | 27.15 | 28.52 | 5.98 | 6.33 | 1012.33 | 888.50 | 3.25 | 3.87 |
| SD in streams | | 0.45 | 0.69 | 0.21 | 0.38 | 183.51 | 88.39 | 0.57 | 0.99 |
| Median value from worldwide review\* | |  | | 8.5 | | 2500 | | 6 | |

F1-F2 correspond to managed wells; P1-P4 unmanaged wells; S1-S3 streams.

\* Median value specified in national drinking-water quality standards from a global review of various country regulations and policies (WHO/UNICEF, 2017).

**Table S2.** Average concentration (mg L-1) of soluble ions of water samples from wells and streams during the dry season (dry) and wet season (wet)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sampling sites | | Na+ | | K+ | | PO43- | | SO42- | | NO3- | | NO2- | |
|  | | Dry | Wet | Dry | Wet | Dry | Wet | Dry | Wet | Dry | Wet | Dry | Wet |
| Managed wells | F1 | 18.34 | 6.13 | 8.18 | 6.04 | 0.23 | 0.11 | 78.32 | 11.82 | 45.01 | 28.04 | 0.01 | 0.01 |
| F2 | 128.32 | 11.26 | **15.17** | 7.18 | 0.14 | 0.08 | 99.70 | 20.59 | 30.02 | 18.72 | 0.02 | 0.07 |
| Unmanaged wells | P1 | 46.13 | 8.40 | **17.52** | 3.10 | 0.81 | 0.13 | 34.82 | 12.25 | **54.35** | 32.35 | 0.03 | 0.09 |
| P2 | 32.15 | 17.50 | 9.54 | 4.22 | 0.91 | 0.58 | 28.55 | 4.82 | 45.12 | 28.88 | 0.08 | 0.07 |
| P3 | 37.88 | 9.98 | **18.04** | 8.55 | 0.68 | 0.45 | 87.01 | 9.41 | 40.51 | 35.90 | 0.07 | 0.04 |
| P4 | 34.18 | 7.86 | **13.99** | 3.15 | 2.05 | 1.32 | 52.46 | 8.89 | **79.41** | 48.02 | 0.11 | **0.98** |
| Streams | S1 | 12.13 | 10.40 | **19.40** | 1.18 | 2.98 | 1.25 | 35.12 | 23.59 | **372.09** | **178.15** | **1.07** | **1.02** |
| S2 | 8.53 | 9.82 | **15.67** | 6.02 | 0.02 | 0.04 | 54.20 | 17.81 | **64.23** | 22.14 | **1.02** | **0.99** |
| S3 | 15.17 | 7.55 | 8.59 | 2.79 | 0.04 | 0.08 | 72.30 | 9.81 | **66.60** | 18.13 | **0.85** | **0.95** |
| Minimum in wells | | 32.15 | 7.86 | 9.54 | 3.10 | 0.68 | 0.13 | 28.55 | 4.82 | **40.51** | 28.88 | 0.03 | 0.04 |
| Maximum in wells | | 46.13 | 17.5 | **17.52** | 8.55 | 2.05 | 1.32 | 87.01 | 12.25 | **79.41** | 48.02 | 0.11 | **0.98** |
| Mean in wells | | 37.59 | 10.94 | **14.77** | 4.75 | 1.11 | 0.62 | 50.71 | 8.84 | **54.85** | 36.29 | 0.07 | **0.29** |
| SD in wells | | 6.17 | 4.47 | 3.92 | 2.58 | 0.63 | 0.50 | 12.32 | 1.3 | 2.31 | 4.22 | 0.03 | 0.04 |
| Minimum in streams | | 8.53 | 7.55 | 8.59 | 1.18 | 0.02 | 0.04 | 35.12 | 9.81 | **64.23** | 18.13 | 0.03 | **0.95** |
| Maximum in streams | | 15.17 | 10.4 | **19.40** | 6.02 | 2.98 | 1.25 | 72.30 | 23.59 | **372.09** | **178.15** | **1.02** | **1.02** |
| Mean in streams | | 11.94 | 9.26 | **14.55** | 3.33 | 1.01 | 0.46 | 53.87 | 17.07 | **167.64** | **72.81** | **0.98** | **0.99** |
| SD in streams | | 1.42 | 1.51 | 2.23 | 2.46 | 0.70 | 0.16 | 12.59 | 3.61 | 21.32 | 24.32 | 0.12 | 0.04 |
| Median value from worldwide review\* | | 200 | | 10 | | ND | | 250 | | 50 | | 0.5 | |

F1-F2 correspond to managed wells; P1-P4 unmanaged wells; S1-S3 streams.

\* Median value specified in national drinking-water quality standards from a global review of various country regulations and policies (WHO/UNICEF, 2017). In bold, the values which are above the guideline value recommended for drinking-water quality.

Reference: WHO/UNICEF Progress in Drinking Water and Sanitation: 2017 Update and SDG Baseline; World Health Organization (WHO) and United Nations Children’s Fund (UNICEF): Geneva, Switzerland and New York City, NY, USA,2017

**Figure F1.** *Escherichia coli, Enterococcus* and total coliform quantification in wells and stream during the dry season (dry) and wet season (wet)

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