

## Appendix 2

### Spatio-temporal assessment of illicit drug use at large scale: evidence from seven years of international wastewater monitoring

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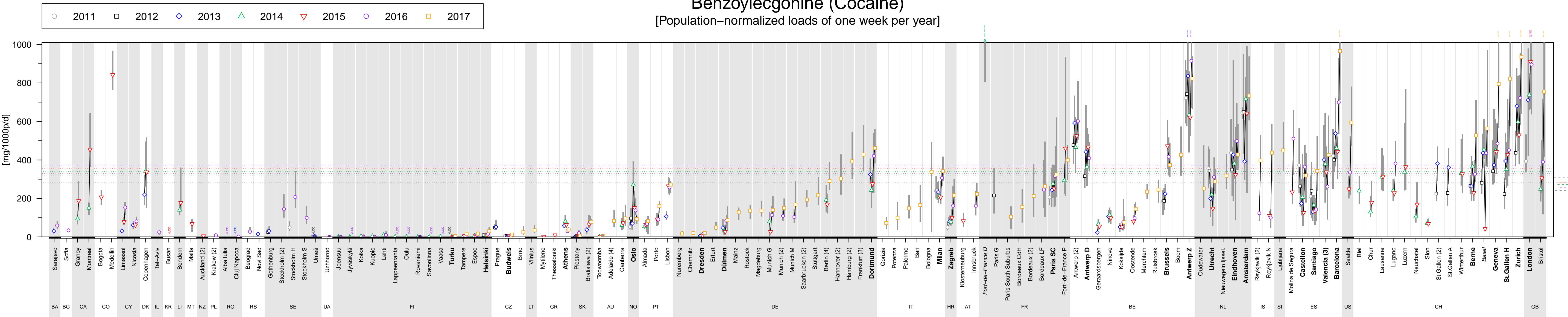
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# Benzoylecgonine (Cocaine)

[Population-normalized loads of one week per year]



**Dots:** weekly mean loads. **Grey bars:** min to max range of monitored week. **Black lines:** visual aid linking data of subsequent years.

**Fill color of dots:** Values <LOQ (limit of quantification) were replaced with 0.5xLOQ if at least one value of the week was >LOQ; white = no values <LOQ, light grey = 1–3 values <LOQ, dark grey = 4–6 values >LOQ.

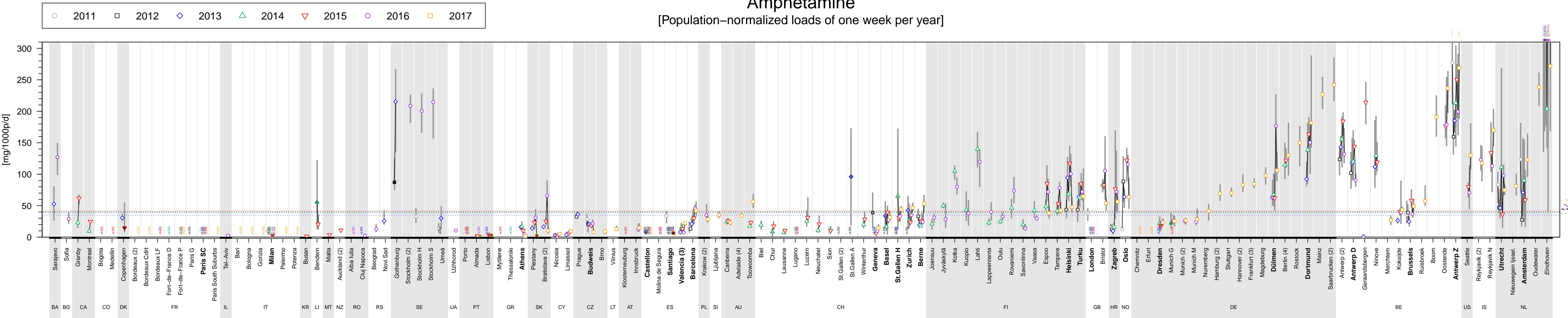
**Calculation of population-weighted overall means:** cities exhibiting abnormal values for at least one year (italic font, see text for details) and cities reporting '<LOQ' (for all days in one week) were excluded.

**Dotted lines:** overall mean loads for cities that participated five years or more (cities in bold font). **Dashed lines (right margin):** overall mean loads for all cities that participated in a particular year.

**Numbers in brackets:** number of wastewater treatment plants monitored in the same city (weekly mean load is the population-weighted average of all wastewater treatment plants monitored in that city).

# Amphetamine

[Population-normalized loads of one week per year]



**Dots:** weekly mean loads. **Grey bars:** min to max range of monitored week. **Black lines:** visual aid linking data of subsequent years.

**Fill color of dots:** Values <LOQ (limit of quantification) were replaced with 0.5xLOQ if at least one value of the week was >LOQ; white = no values <LOQ, light grey = 1–3 values <LOQ, dark grey = 4–6 values >LOQ.

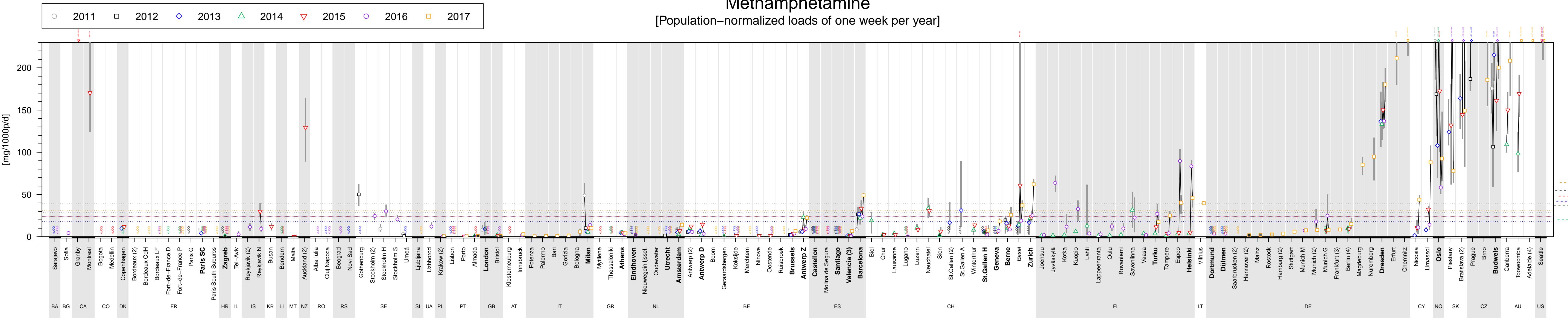
**Calculation of population-weighted overall means:** cities exhibiting abnormal values for at least one year (italic font, see text for details) and cities reporting '<LOQ' (for all days in one week) were excluded.

**Dotted lines:** overall mean loads for cities that participated five years or more (cities in bold font). **Dashed lines (right margin):** overall mean loads for all cities that participated in a particular year.

**Numbers in brackets:** number of wastewater treatment plants monitored in the same city (weekly mean load is the population-weighted average of all wastewater treatment plants monitored in that city).

# Methamphetamine

[Population-normalized loads of one week per year]



**Dots:** weekly mean loads. **Grey bars:** min to max range of monitored week. **Black lines:** visual aid linking data of subsequent years.

**Fill color of dots:** Values <LOQ (limit of quantification) were replaced with 0.5xLOQ if at least one value of the week was >LOQ; white = no values <LOQ, light grey = 1–3 values <LOQ, dark grey = 4–6 values >LOQ.

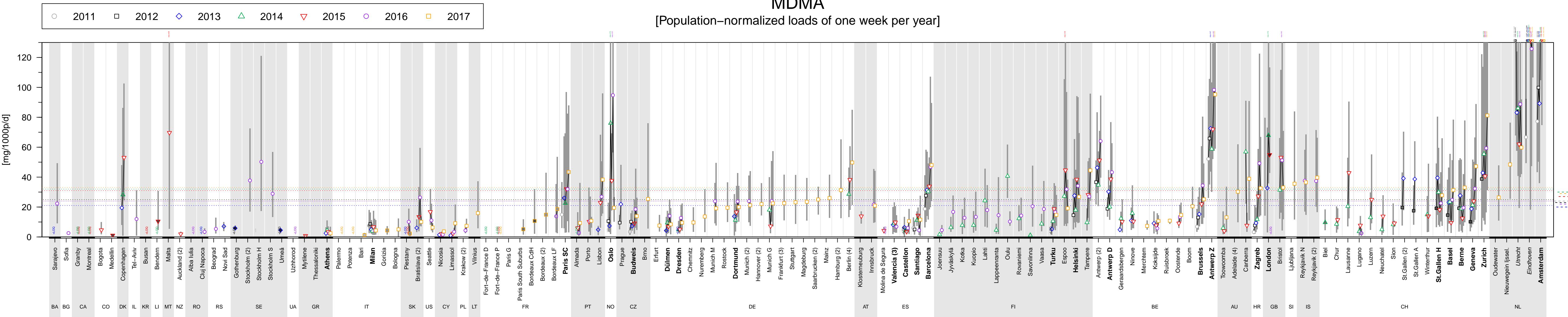
**Calculation of population-weighted overall means:** cities exhibiting abnormal values for at least one year (italic font, see text for details) and cities reporting '<LOQ' (for all days in one week) were excluded.

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**Numbers in brackets:** number of wastewater treatment plants monitored in the same city (weekly mean load is the population-weighted average of all wastewater treatment plants monitored in that city).

# MDMA

[Population-normalized loads of one week per year]



**Dots:** weekly mean loads. **Grey bars:** min to max range of monitored week. **Black lines:** visual aid linking data of subsequent years.

**Fill color of dots:** Values <LOQ (limit of quantification) were replaced with 0.5xLOQ if at least one value of the week was >LOQ; white = no values <LOQ, light grey = 1–3 values <LOQ, dark grey = 4–6 values >LOQ.

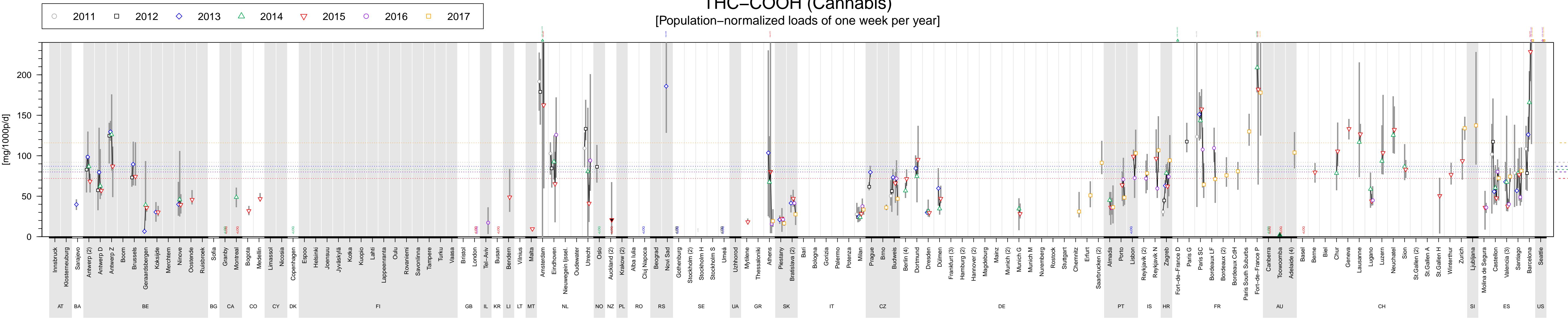
**Calculation of population-weighted overall means:** cities exhibiting abnormal values for at least one year (italic font, see text for details) and cities reporting '<LOQ' (for all days in one week) were excluded.

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**Numbers in brackets:** number of wastewater treatment plants monitored in the same city (weekly mean load is the population-weighted average of all wastewater treatment plants monitored in that city).

# THC-COOH (Cannabis)

[Population-normalized loads of one week per year]



**Dots:** weekly mean loads. **Grey bars:** min to max range of monitored week. **Black lines:** visual aid linking data of subsequent years.

**Fill color of dots:** Values <LOQ (limit of quantification) were replaced with 0.5xLOQ if at least one value of the week was >LOQ; white = no values <LOQ, light grey = 1–3 values <LOQ, dark grey = 4–6 values >LOQ.

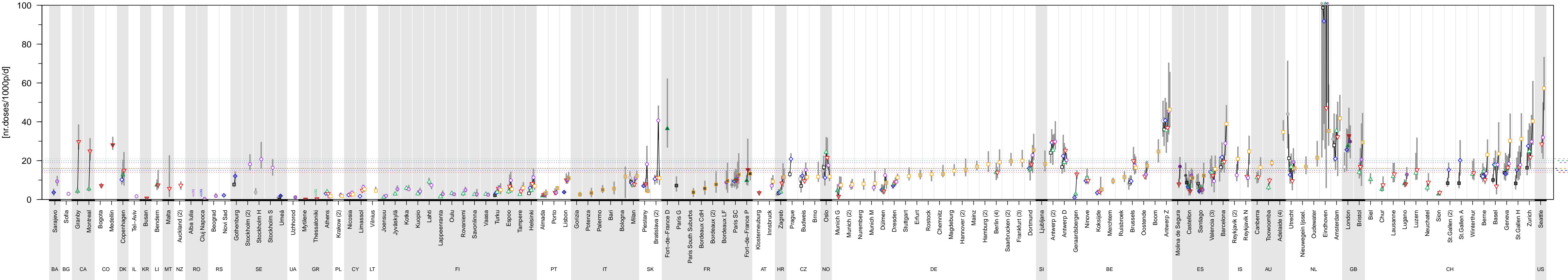
**Calculation of population-weighted overall means:** cities exhibiting abnormal values for at least one year (italic font, see text for details) and cities reporting '<LOQ' (for all days in one week) were excluded.

**Dotted lines:** overall mean loads for cities that participated five years or more (cities in bold font). **Dashed lines (right margin):** overall mean loads for all cities that participated in a particular year.

**Numbers in brackets:** number of wastewater treatment plants monitored in the same city (weekly mean load is the population-weighted average of all wastewater treatment plants monitored in that city).

# combined doses

[Population-normalized loads of one week per year]



**Dots:** weekly mean loads. **Grey bars:** min to max range of monitored week. **Black lines:** visual aid linking data of subsequent years.

**Fill color of dots:** Values <LOQ (limit of quantification) were replaced with 0.5xLOQ if at least one value of the week was >LOQ; white = no values <LOQ, light grey = 1–3 values <LOQ, dark grey = 4–6 values >LOQ.

**Calculation of population-weighted overall means:** cities exhibiting abnormal values for at least one year (italic font, see text for details) and cities reporting '<LOQ' (for all days in one week) were excluded.

**Dotted lines:** overall mean loads for cities that participated five years or more (cities in bold font). **Dashed lines (right margin):** overall mean loads for all cities that participated in a particular year.

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