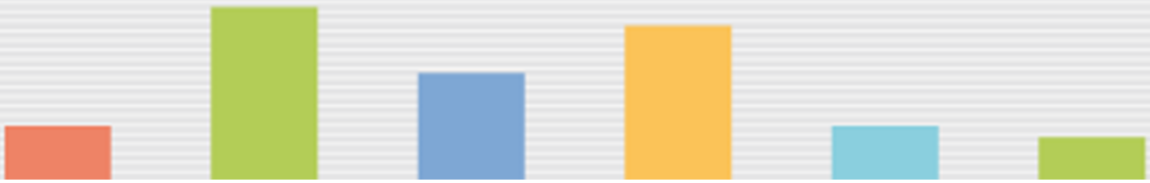
European Monitoring Centre
for Drugs and Drug Addiction

DRID indicator: proposals to assess data quality

Eleni Kalamara, Vivian Hope, Thomas Seyler

24th September 2018, Lisbon
DRID annual expert meeting



Purpose of the DRID key indicator *

The purpose of this key indicator is to obtain valid, reliable and comparable measures of HIV, HBV and HCV infection among drug users, and in particular: a) to measure levels of infection (prevalence) in IDU population and key sub-groups; and b) to monitor trends over time (increases or decreases in prevalence) among these groups

* http://www.emcdda.europa.eu/publications/methods/drid-overview

Is DRID robust?

To achieve these purposes a robust indicator which can permit the monitoring of geographic and temporal differences is required

Did we manage to have a robust indicator which can permit the above?

Data collection methods

(FONTE ST9 template)

1.2.1 - Definition of injectors (report only data from ever-IDUs: including current IDUs, excluding never-IDUs) *

- Ever IDUs (both current and former)
- Current IDUs
- IDU status unknown, may include never-IDUs

1.2.9 - Recruitment area (Geographical Coverage) *

- National (all areas of the EU member state or EMCDDA collaborating country)
- Regional (one or more subnational regions/areas)
- Smaller geographic unit (e.g. one or more cities/towns)

1.2.20 - **Study timing**

- Only once
- Repeated
- Continuous

1.2.12 - **Setting(s)**

- Overdose deaths (forensic institutes)
- (Drug) emergency (clinics)
- Drug treatment centres
- Drug treatment centres (drug free/detox)
- Drug treatment centres (inpatient)
- Drug treatment centres (maintenance)
- Drug treatment centres (outpatient)
- Needle/syringe programmes
- Other low-threshold services including outreach
- Public health laboratories
- STI clinics
- Antenatal clinics
- Other hospital/clinics
- Prisons
- Arrests (police)
- General practitioners
- HIV testing centres
- Street recruitment
- Other (please specify below)

1.2.15 - Study design *

- Seroprevalence study (SP)
- Diagnostic testing (DT)
- Seroprevalence study (SP-UAT) with unlinked anonymous testing
- HIV data (partly) based on self-reported test results (SR)

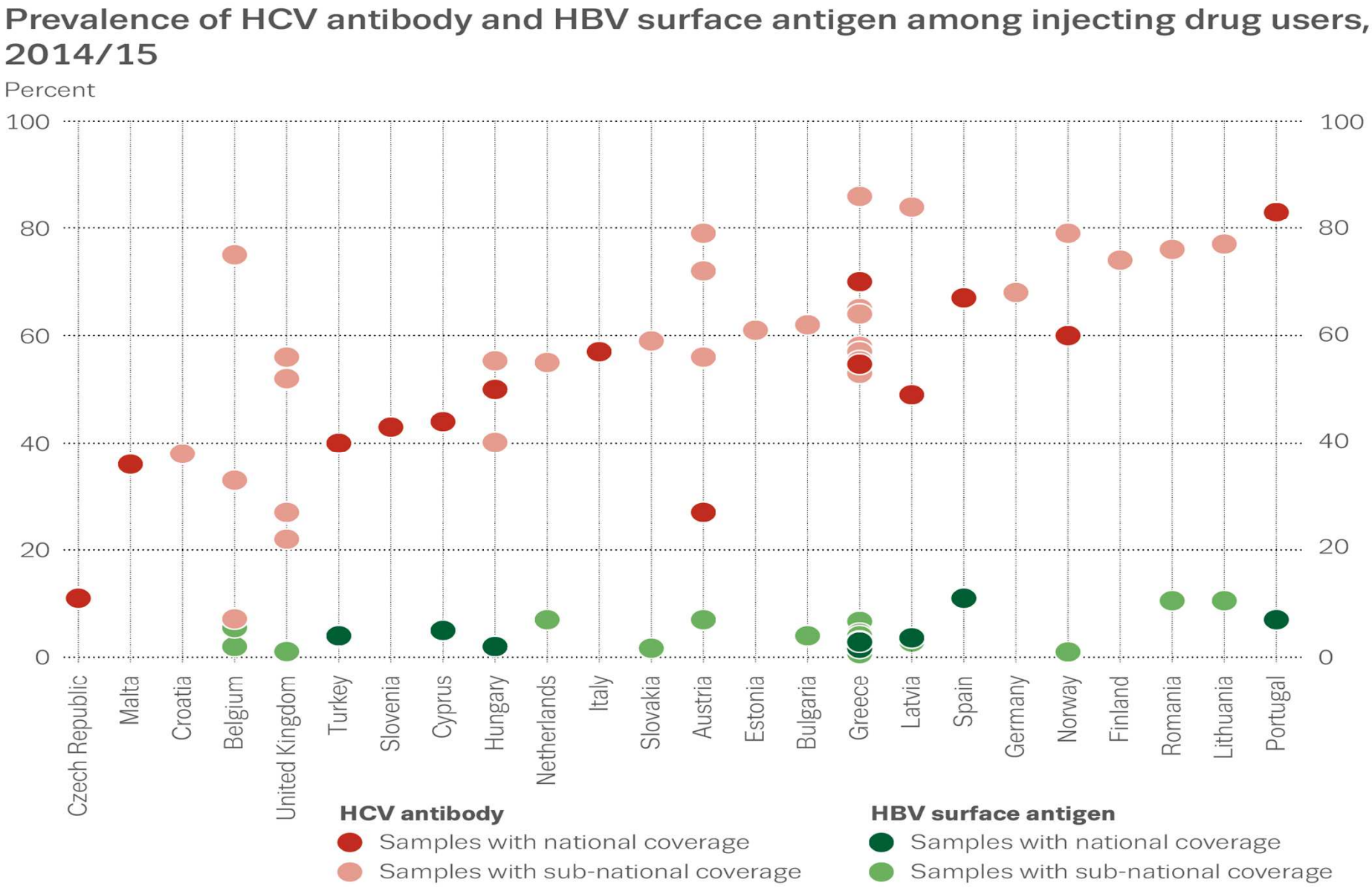
1.2.25 - Specimen *

- Serum
- Dried blood spots
- Saliva or oral fluid
- Urine
- Other (please specify below)

Prevalence of HCV antibody among injecting drug users in the EU+TR+NO, 2015 or most recent year available

Country	Year	Number tested	National samples	Sub-national samples	Study design	Setting/comments
Belgium	2014/2015	463	:	7.0 -75.2	DT	DTC, NSP; serum
Bulgaria	2015	698	:	61.6	DT	DTC; NSP; STR; serum
Czech Republic	2014	2008	15.7	:	DT	NSP; serum, capillary blood
Denmark	2008	223	52.5	:	SP (UAT)	ODD; post mortem blood
Germany	2011/2014	2077	:	36.9 - 73.0	SP	LTS; dried blood spots
Estonia	2014	349	:	61.3	SP	NSP;Serum
Ireland	2010	200	41.5	:	SP	PRI; saliva or oral fluid
Greece	2015	920	54.82 - 69.6	52.7-85.6	DT ; SP	DTC, LTS,PRI, OTH; serum
Spain	2014	3668	66.6	:	DT	DTC, PRI; serum
France	2011	901	:	63.8	SP (UAT)	NSP, LTS, DTC; dried blood spots
Croatia	2014	817	:	38.3	SP	NSP; serum
Italy	2015	9080	57.3	:	DT	DTC; serum; ever
Cyprus	2015	52	44.2	:	DT	DTC; serum
Latvia	2014/2015	990	48.6	84.2	DT/SP	NSP, STR; rapid tests (capillary blood from finger)
Lithuania	2014	200	:	77	SP (UAT)	NSP; serum
Luxembourg	:	:	:	:	:	:
Hungary	2015	559	49.7	40.5 - 55.3	SP	DTC, NSP , LTS; dried blood spots
Malta	2015	182	35.7	:	DT	DTC, HTC, PHL, STI, ANT, OHC; serum
Netherlands	2015	20	:	55	DT	DTC; serum
Austria	2015	416	26.8	56.5 -79.1	DT	DTC, LTS, ODD, NSP; serum
Poland	2009	184	:	44.3 - 72.4	SP	LTS; serum
Portugal	2015	333	83.5	:	DT	DTC; serum,dried blood spots
Romania	2015	522	:	75.7	SP	STR; serum,dried blood spots
Slovenia	2015	89	42.7	:	DT	DTC; serum
Slovakia	2015	58	:	58.6	SP	DTC; serum
Finland	2014	589	:	74.02	SP (UAT)	NSP;saliva or oral fluid
Sweden	2013	62	:	96.8	DT	PRI; serum
UK	2015	5975	:	22.3-57.5	SP (UAT); SP	DTC, NSP, LTS; OTH; dried blood spots
Turkey	2015	2926	39.8		SP (UAT)	DTC; serum
Norway	2015	7298	60.2	78.9	SP	DTC, NSP; serum

Hepatitis C / HbsAg prevalence



Why grade the data?

- To assess the quality of the data used to monitor the geographic and temporal differences
- To help determine whether studies are comparable.
- To allow better data presentation
- To motivate countries to improve quality of the data
- To allow data users (researches, policy makers etc) to assess the level of evidence

Proposed grading system*

1. Sample size
2. Study design
3. Injection status of ‘participant
4. Recruitment’ Settings
5. Number of sites

→ **Representativeness and robustness**

6. Periodicity of the study → **Utility for monitoring**

7. Geographic Coverage → **Ability to reflect the national situation**

* Ref: Project: the 2017 Rapid Communication on ‘Drug-related infectious diseases (DRID)’ CONTRACT CODE: CT.16.IBS.0179.1.0

An example scoring system

	1.Sample size		
	Total population <4 million	Total population between 4 and 15 million	Total population 15 million+
4	Over 200	Over 400	Over 600
2	100 to 200	100 to 400	100 to 600
0	Under 100	Under 100	Under 100

Minimum sample thresholds*

Overall samples sizes, which should be provided by appropriate sample size calculations, should be 100 or larger. However, if this is not possible, samples of 50 or larger are accepted

(*http://www.emcdda.europa.eu/publications/methods/drid-overview)

An example scoring system (..cont)

	2.Type of study
5	Sero-prevalence study with biological sample collection
3	Diagnostic testing where known positives are not excluded from data
0	Diagnostic testing, with not accounting for known positives.
-5	Self-reported status

	3.Injection status
3	Current & Ever/Recent
2	Current only
0	Unknown

	4. Settings
5	Multiple type of settings, must include open settings or all settings are open; or community recruited sample using established method, such as, RDS, TLS or snowball sampling
3	One type of open setting or multiple closed settings (prison or inpatient)
1	One type of closed setting
0	Unknown

	5.No of Sites
3	Many sites (>2)
2	Two sites
1	One site
0	Unknown

An example scoring system (..cont)

	6.Periodicity
3	Continuous / Repeated at least every third year (i.e. annual, biennial or triennial)
2	Comparable studies over time / repeated, but more than 3 years between waves
1	Only once

	7.Geographic Coverage
3	National
2	Large Regions/ Capital/ Multiple cities
1	Single city
0	Unknown

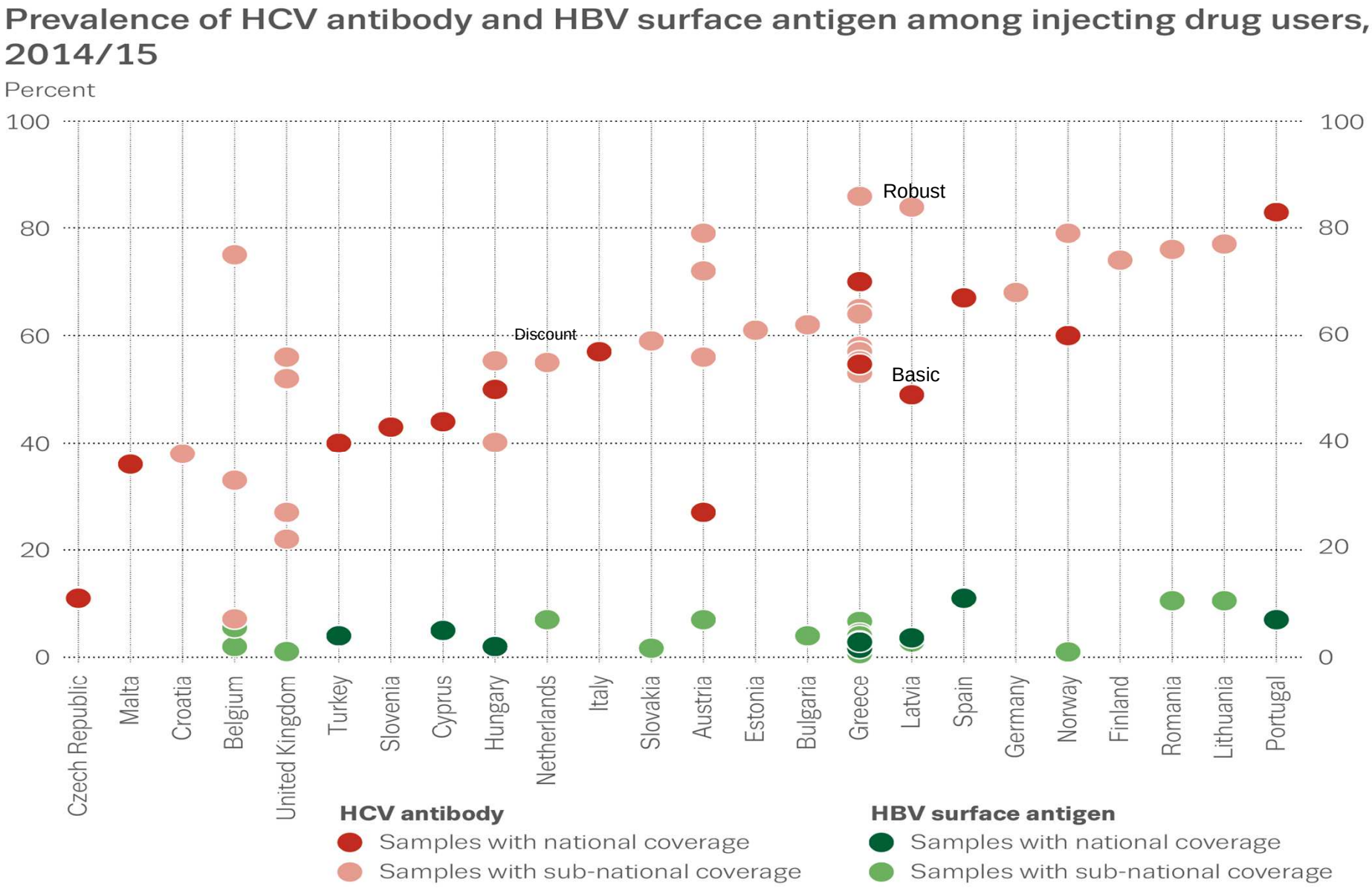
Scoring categories

System	Only the five factors related to the representative-ness and robustness of systems	All seven factors
Robust	>17	>22
Standard	16-17	20-22
Basic	10-15	15-20
Discount	<10	<15

Studies' scoring: examples

Study	Only the five factors	All seven factors	System
CZ	10	16	Basic/Basic
GR	15	21	Basic/Standard
UK (E&W)	20	25	Robust/Robust
NL	7	11	Discount/ discount
LV 1	13	19	Basic/Basic
LV 2	24	19	Robust/Robust

Hepatitis C / HbsAg prevalence



Prevalence of HCV antibody among injecting drug users in the EU+TR+NO, 2015 or most recent year available

Country	Year	Number tested	National samples	Sub-national samples	Study design	Setting/comments	
Belgium	2014/2015	463	:	7.0 -75.2	DT	DTC, NSP; serum	
Bulgaria	2015	698	:	61.6	DT	DTC; NSP; STR; serum	
Czech Republic	2014	2008	15.7	:	DT	NSP; serum, capillary blood	
Denmark	2008	223	52.5	:	SP (UAT)	ODD; post mortem blood	
Germany	2011/2014	2077	:	36.9 - 73.0	SP	LTS; dried blood spots	
Estonia	2014	349	:	61.3	SP	NSP ;Serum	
Ireland	2010	200	41.5	:	SP	PRI; saliva or oral fluid	
Greece	2015	920	54.82 - 69.6	52.7-85.6	DT ; SP	DTC, LTS,PRI, OTH; serum	
Spain	2014	3668	66.6	:	DT	DTC, PRI; serum	
France	2011	901	:	63.8	SP (UAT)	NSP , LTS, DTC; dried blood spots	
Croatia	2014	817	:	38.3	SP	NSP ; serum	
Italy	2015	9080	57.3	:	DT	DTC; serum; ever	
Cyprus	2015	52	44.2	:	DT	DTC; serum	
Latvia	2014/2015	990	48.6	84.2	DT/SP	NSP, STR; rapid tests (capillary blood from finger)	
Lithuania	2014	200	:	77	SP (UAT)	NSP ; serum	
Luxembourg	:	:	:	:	:	:	
Hungary	2015	559	49.7	40.5 - 55.3	SP	DTC, NSP , LTS; dried blood spots	
Malta	2015	182	35.7	:	DT	DTC, HTC, PHL, STI, ANT, OHC; serum	
Netherlands	2015	20	:	55	DT	DTC; serum	Discount
Austria	2015	416	26.8	56.5 -79.1	DT	DTC, LTS, ODD, NSP ; serum	
Poland	2009	184	:	44.3 - 72.4	SP	LTS; serum	
Portugal	2015	333	83.5	:	DT	DTC; serum,dried blood spots	
Romania	2015	522	:	75.7	SP	STR; serum,dried blood spots	
Slovenia	2015	89	42.7	:	DT	DTC; serum	
Slovakia	2015	58	:	58.6	SP	DTC; serum	
Finland	2014	589	:	74.02	SP (UAT)	NSP ;saliva or oral fluid	
Sweden	2013	62	:	96.8	DT	PRI; serum	
UK	2015	5975	:	22.3-57.5	SP (UAT); SP	DTC, NSP , LTS; OTH; dried blood spots	
Turkey	2015	2926	39.8		SP (UAT)	DTC; serum	
Norway	2015	7298	60.2	78.9	SP	DTC, NSP ; serum	

How shall we proceed with the quality of data information?

To add?
Date of study?
Method of sample selection (RDS etc)?
Specimen?

RANKING SYSTEM

- Revise the list of characteristics of interest
- Revise the scoring system
- Come up with a robust ranking system for each study

G/ PRESENTING

e from reporting 'low
data (ranked as discount)
data in different ways
based on their quality ranking

- Report all data together with an additional column stating the quality of each study
- Highlight some key features in the graphs (i.e study type)

WHEN/WHERE TO RANK

- At a country level
- At EMCDDA's level

- Through FONTE
- At analysis level

How shall we proceed with the quality of data proposal?

RANKING SYSTEM

- Revise the list of characteristics of interest
- Revise the scoring system
- Come up with a robust ranking system for each study

REPORTING/ PRESENTING

- Exclude from reporting 'low quality' data (ranked as discount)

t ways
ranking
er with an
ing the

atures in
ype)

Giving equal weight to each characteristics or some indicators are more important than others, so unequal weights?

Interpretation of the total grade?

WHEN/WHER

- At a country level
- At EMCDDA's level

- Through FONTE
- At analysis level

How shall we proceed with the quality of data information?

RANKING SYSTEM

- Revise the list of characteristics of interest
- Revise the scoring system
- Come up with a robust ranking system for each study

REPORTING/ PRESENTING

- Exclude from reporting ‘low quality’ data (ranked as discount)
- Report data in different ways based on their quality ranking
- Report all data together with an additional column stating the quality of each study
- Highlight some key features in the graphs (i.e study type)

WHEN/WHERE TO RANK

- At a country level
- At EMCDDA’s level

- Through FONTE
- At analysis level