	WMDA Key Performance Indicators for Registries			
	Document type	Recommendation	WG/Committee	WGQR
	Document reference	20171031-WGQR-KPI update 2017	Approved by	Chair
	Version	2	Approval date	20171031
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## Key performance indicators for registry operations

### Introduction:

The Working Group Quality and Regulation has defined key performance indicators (KPI) for hematopoietic stem cell donor registries. These KPIs are based on the WMDA annual report and the HLA discrepancy report. They will be assessed every year. From 2016 on the KPIs will be calculated directly from the data provided through the online WMDA annual questionnaire. The defined key performance indicators represent a quantitative assessment of key activities of a hematopoietic stem cell donor registry. For KPI 1,2,3 and 4 anonymous graphic representations will be made available only to each individual organisation, revealing solely the registry's own position in comparison to other organisations. For KPI 5 the IONs will be displayed in the graphs. The objective is to incite organisations to improve their processes by providing target values that should be achievable for their organisation. Improving the performance of a hematopoietic stem cell donor registry means faster services for recipients and insures continuous high quality in the search for a suitable match and the collection of hematopoietic stem cell products.

### Representation and distribution of KPIs:

WMDA regular members vary significantly in size of donor file and volume of patient-related requests per year (high resolution typing, verification and extended typing and work-up requests). Therefore, organisations are classified in four categories according to the number of requests considered in the respective KPI.

The following categories are defined:

1. Less than or equal to 10 requests per year ( $N \leq 10$ )
2. More than 10 but less than or equal to 100 requests per year ( $10 < N \leq 100$ )
3. More than 100 but less than or equal to 1,000 requests per year ( $100 < N \leq 1,000$ )
4. More than 1,000 requests per year ( $N > 1,000$ )

Registries can obtain their own graphs in the WMDA annual questionnaire website (<https://data.wmda.info/index.php>) once logged in. The exported graphs will show their own position within the graph while all other registries will be displayed anonymously. Each graph displays the proposed target value as a red line.


### Definition of key performance indicators for registry operations:

The group has retained a set of 5 KPIs.

The following definitions explain how each KPI is defined and calculated.

### Target values:

The target value of each KPI will be automatically calculated from the data of 2016 at the 75% level (3<sup>rd</sup> quartile) of the values of all organisations combined. The values of the organisations in category 1 will not be included in this calculation. The target values will be set for 3 years, in 2019, a new target value will be calculated in a similar manner. For KPI 5 the target line will be calculated similarly but at the 25% level (1<sup>st</sup> quartile).

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**KPI calculation:**

**1. % of high resolution typing results performed within 14 calendar days**

This KPI refers to the questions in section “**Extended typing requests from your donors during ...**” in the WMDA annual questionnaire. It is calculated as the sum of ‘How many requests have been reported within 7 calendar days?’ and ‘How many requests have been reported within 8 and 14 calendar days?’ divided by ‘Total number of HLA-typing requests for donors from your registry performed during ...’ times 100.

**2. % of blood samples for verification (confirmatory) typing shipped within 14 calendar days of request**

This KPI refers to questions in section “**Blood samples requested from your donors for verification/confirmatory typing during...**” in the WMDA annual questionnaire. It is calculated as the sum of ‘How many requests have been shipped within 7 calendar days?’ and ‘How many requests have been shipped within 8 and 14 calendar days?’ divided by ‘Total number of blood samples effectively shipped to requesting transplant units during...’ times 100.

Footnote in the WMDA annual questionnaire “Please calculate from the date that the request arrived at your registry till the date that the blood sample was sent to the transplant centre.”

As the definition in the WMDA annual questionnaire does not take into account shipment durations, this KPI does not discriminate against international vs. local shipment.

**3. % donor availability at verification (confirmatory) typing stage**

This KPI refers to questions in section ‘**Blood samples requested from your donors for verification/confirmatory typing during...**’ in the WMDA annual questionnaire. It is calculated as 1 minus ‘Donor related reasons of blood sample cancellation’ divided by ‘Total number of blood samples requested for shipment during...’ times 100.


**Remark:** There may be inconsistent handling of cancellation of blood sample shipments due to donor related reasons. E.g. donors might be set temporarily unavailable “TU” when unavailable for 4 weeks in one registry while this might not lead to cancellation of blood shipment in another registry. Definitions might be helpful.

**4. % donor availability at WU stage**

This KPI refers to Questions in section ‘**Work-ups requested from your donors during...**’ in the WMDA annual questionnaire. It is calculated as 1 minus ‘Number of work-up cancellations of your donors (*the reasons for the work-up cancellations must be related to the donors themselves*)’ divided by “Total number of work-up requests of your donors during 2016 (*no DLIs*) (*count all work-up requests from your donors for unrelated patients that are requested by transplant units*)” times 100.

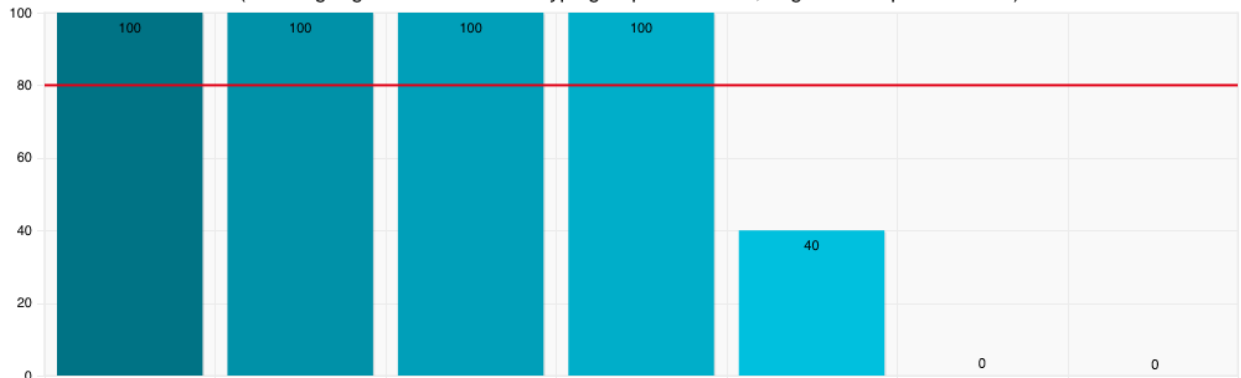
**5. % of discrepant typing results (technical or clerical error at registry)**

This KPI refers to the HLA discrepancy report. It is calculated as the sum of all registry related discrepancies (clerical error at donor center + technical error at donor center + others) divided by the number of confirmatory typing HLA results received.

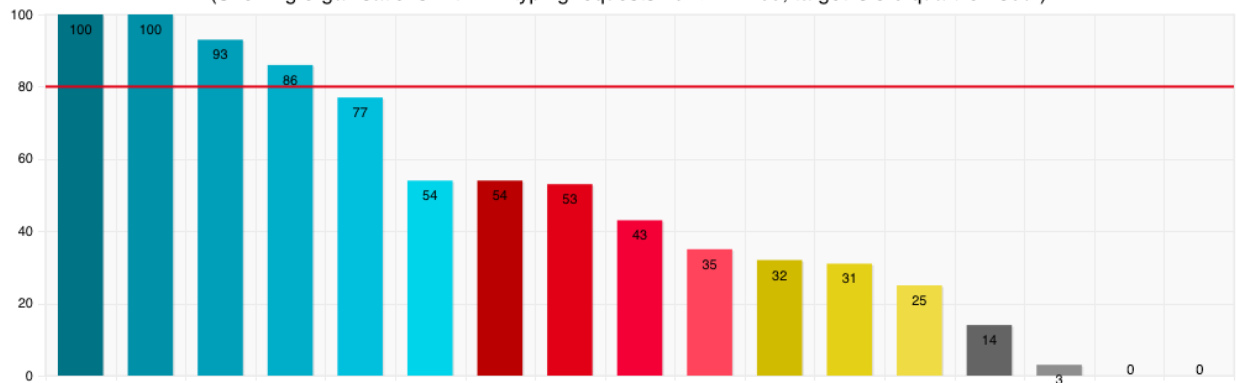
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### Anonymised KPI graphs of 2016

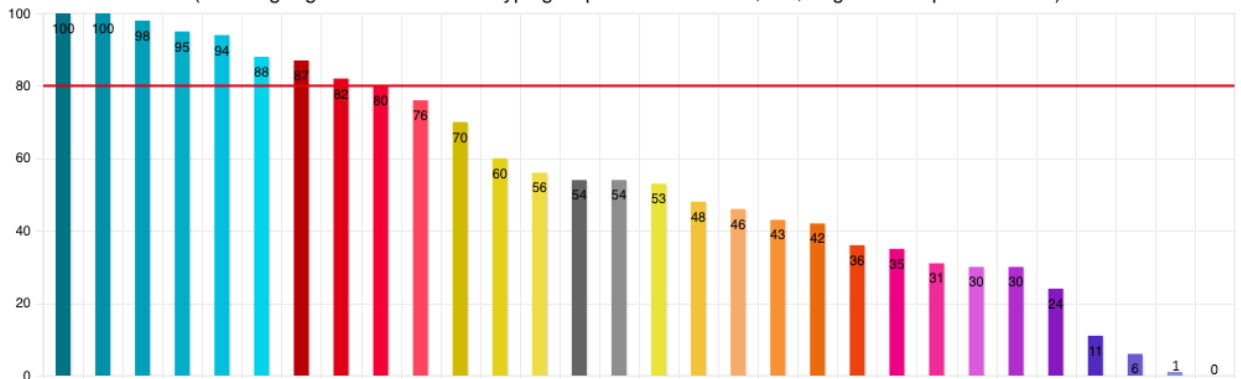
KPI 1: % of high resolution typing requests performed  $\leq 14$  days based on all requests received.  
(Showing organisations with HR typing requests  $N \leq 10$ ; target is 3rd quartile - 80%)



KPI 1: % of high resolution typing requests performed  $\leq 14$  days based on all requests received.  
(Showing organisations with HR typing requests  $10 < N \leq 100$ ; target is 3rd quartile - 80%)



KPI 1: % of high resolution typing requests performed  $\leq 14$  days based on all requests received.  
(Showing organisations with HR typing requests  $100 < N \leq 1,000$ ; target is 3rd quartile - 80%)

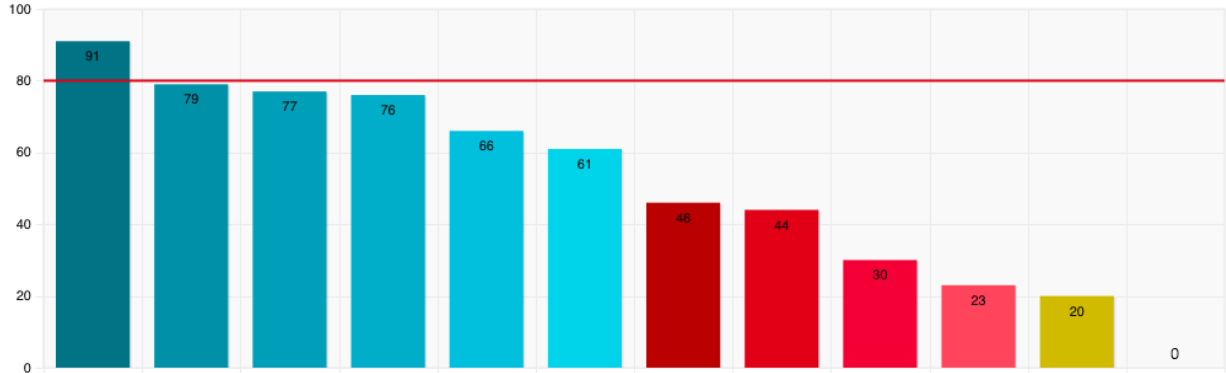




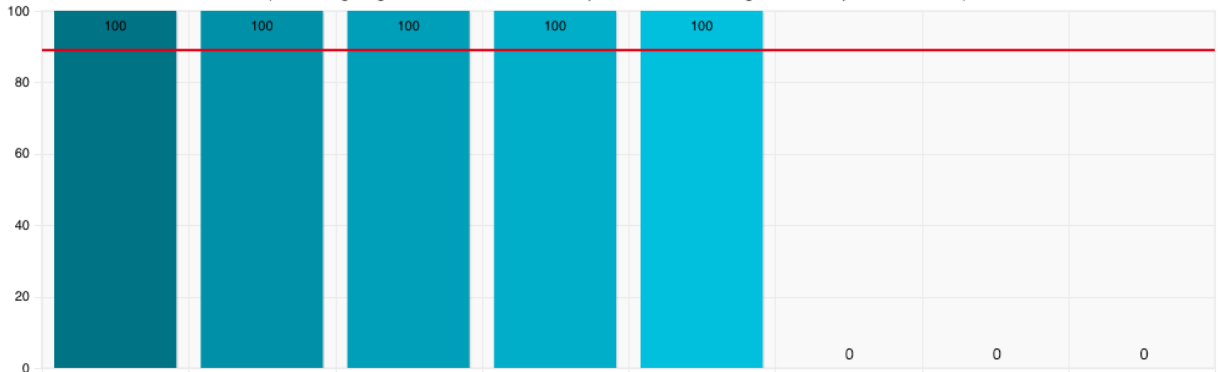
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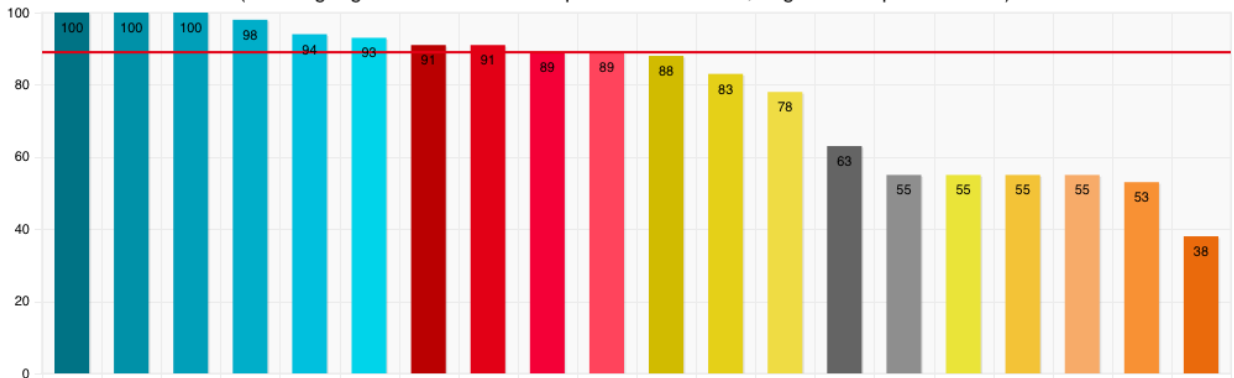
KPI 1: % of high resolution typing requests performed  $\leq 14$  days based on all requests received.  
(Showing organisations with HR typing requests  $N > 1,000$ ; target is 3rd quartile - 80%)



KPI 2: % of blood samples shipped for CT  $\leq 14$  days based on effectively shipped samples only  
(Showing organisations with CT requests  $N \leq 10$ ; target is 3rd quartile - 89%)



KPI 2: % of blood samples shipped for CT  $\leq 14$  days based on effectively shipped samples only  
(Showing organisations with CT requests  $10 < N \leq 100$ ; target is 3rd quartile - 89%)

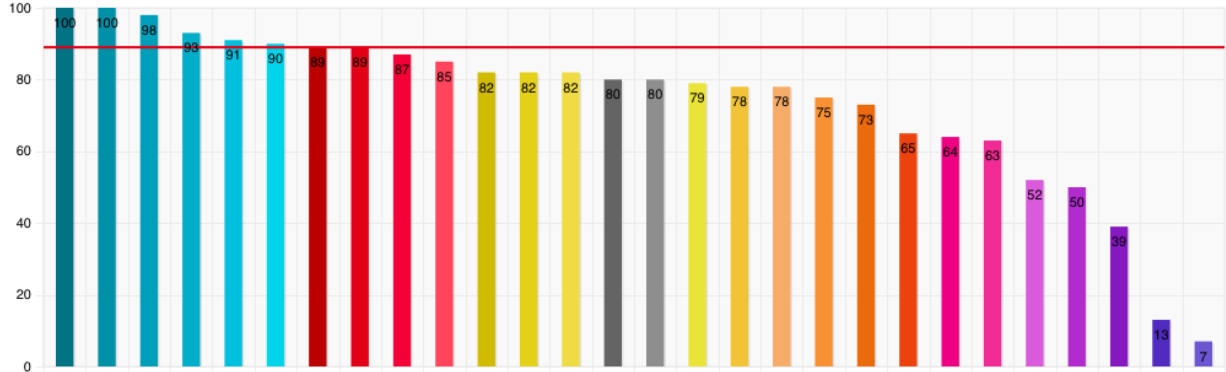




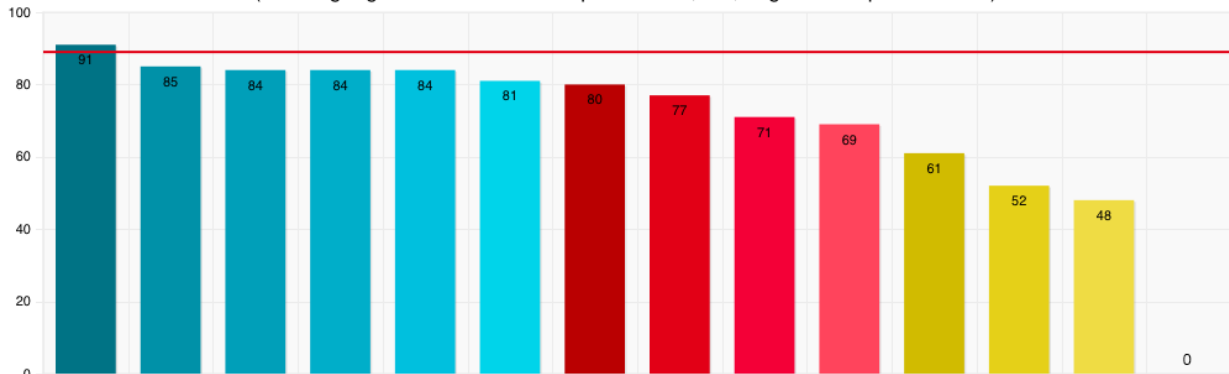
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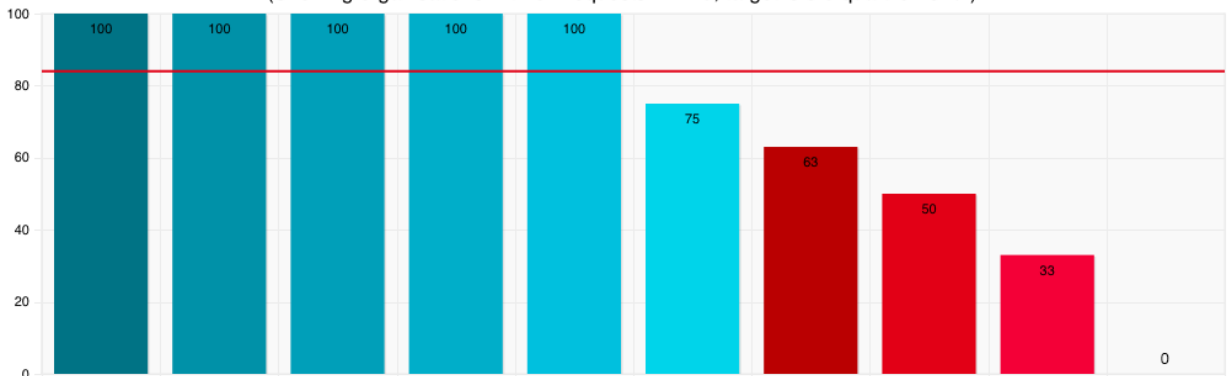
KPI 2: % of blood samples shipped for CT  $\leq$  14 days based on effectively shipped samples only  
(Showing organisations with CT requests  $100 < N \leq 1,000$ ; target is 3rd quartile - 89%)



KPI 2: % of blood samples shipped for CT  $\leq$  14 days based on effectively shipped samples only  
(Showing organisations with CT requests  $N > 1,000$ ; target is 3rd quartile - 89%)



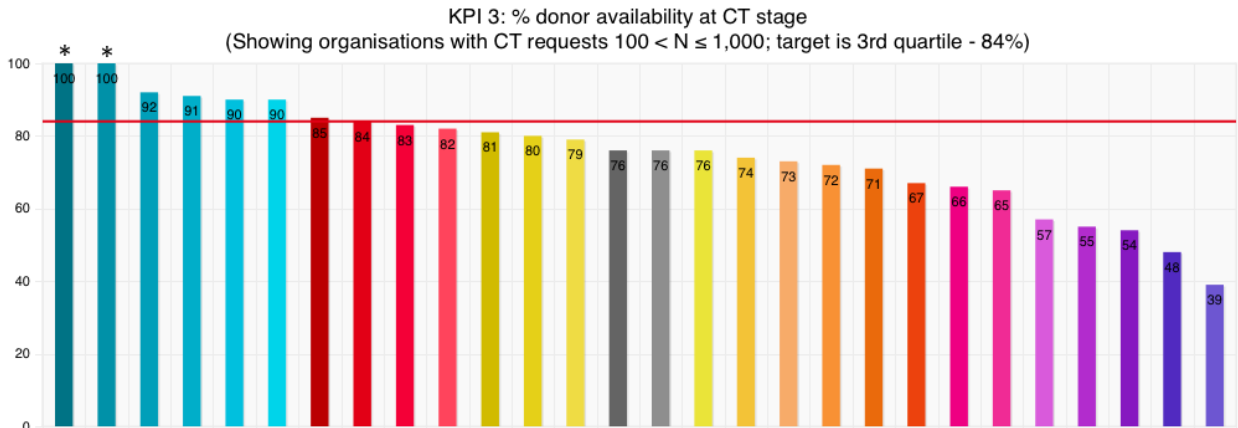
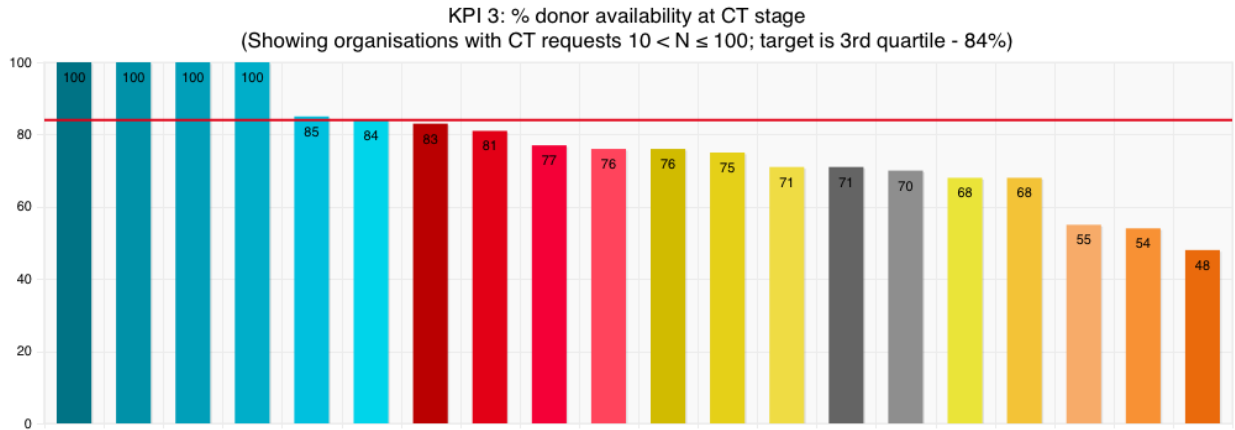
KPI 3: % donor availability at CT stage  
(Showing organisations with CT requests  $N \leq 10$ ; target is 3rd quartile - 84%)



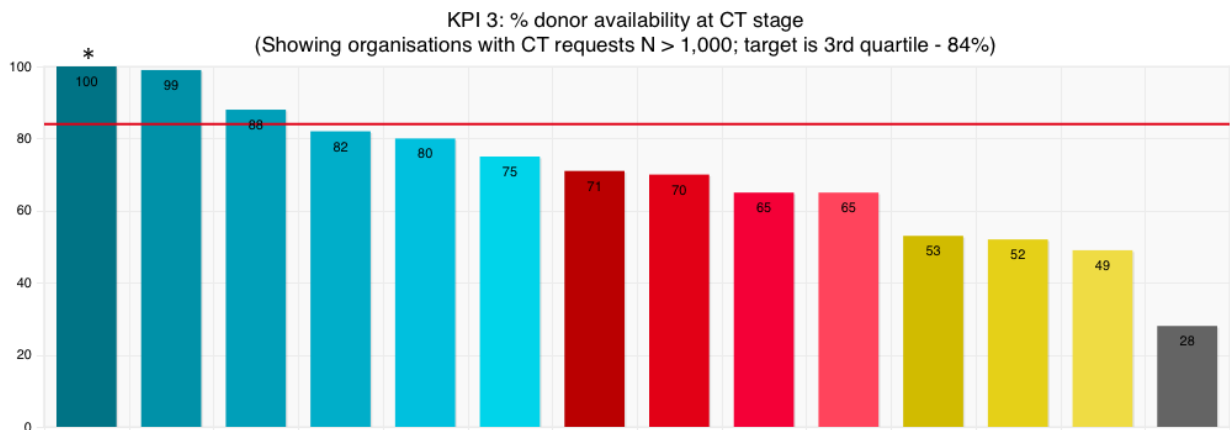


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\*Unverified values

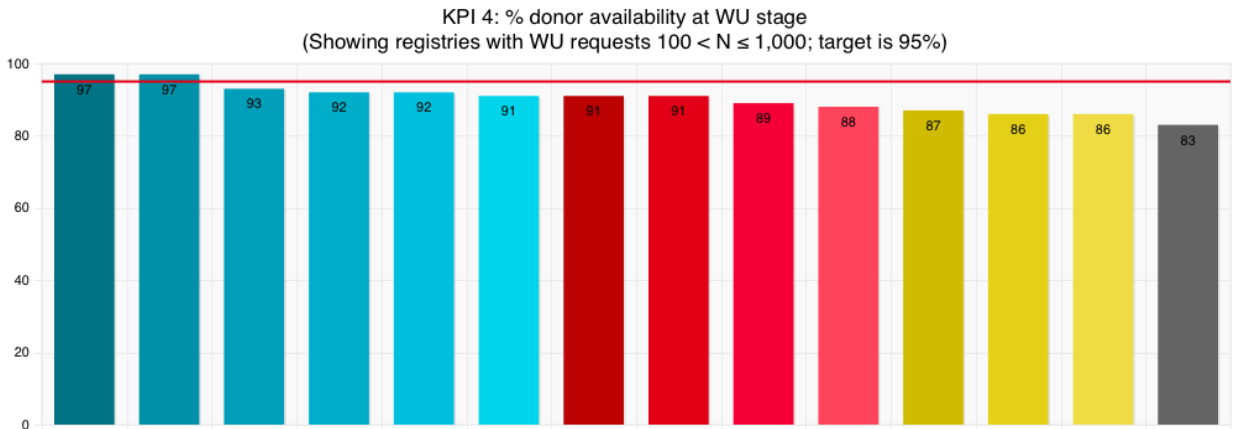
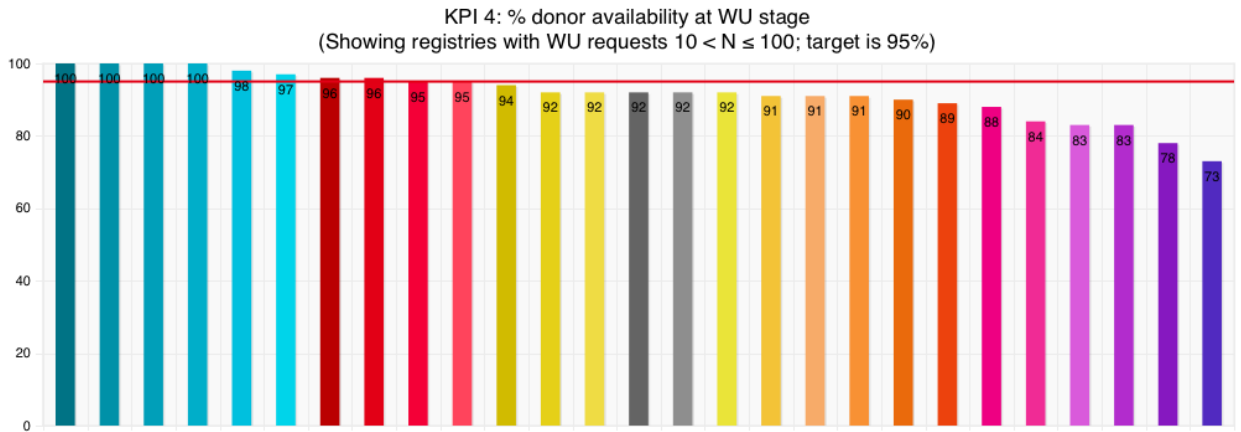
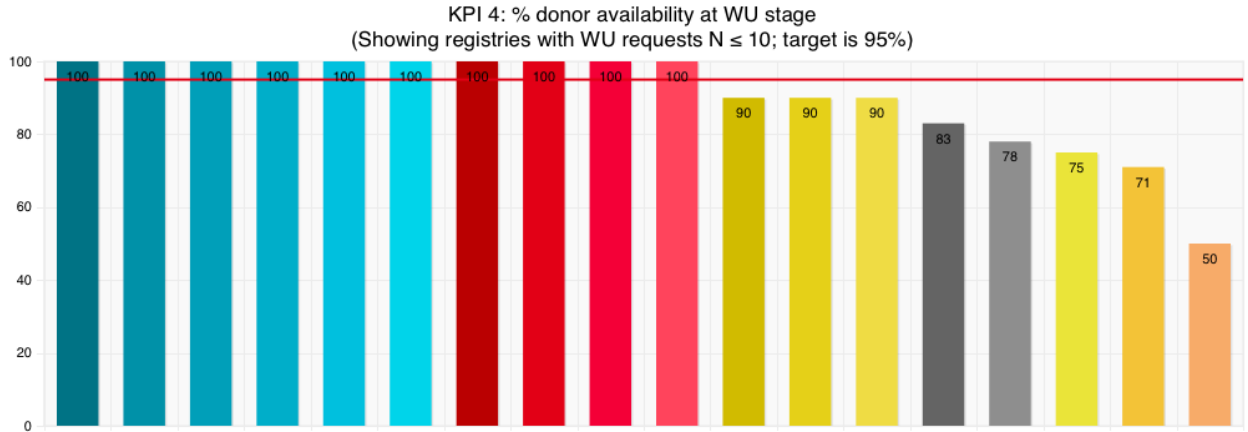



\*Unverified values

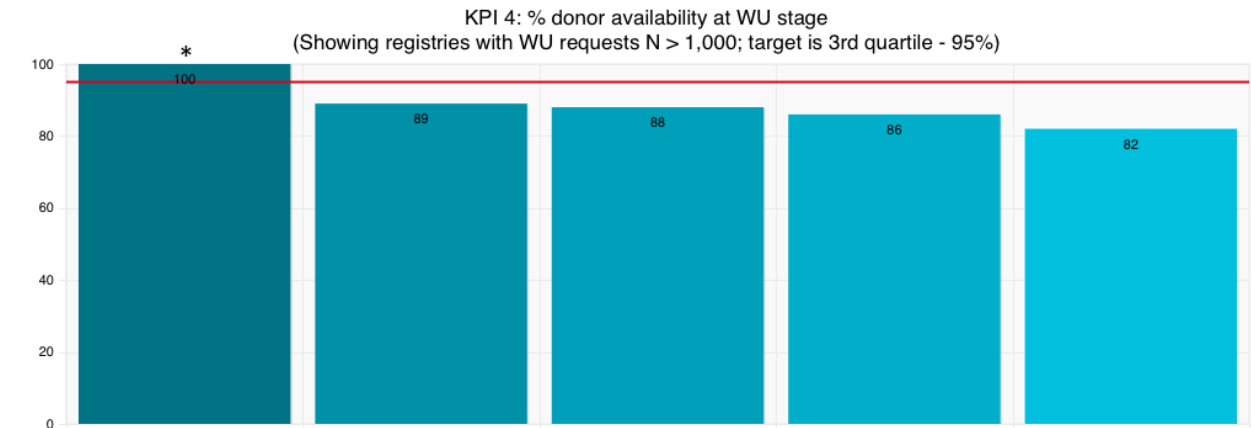


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