

Quality instead of quantity: New strategy of DKMS Lifeline CBB to increase the overall cord blood unit quality

Anja Sauer • Anne-Cathleen Aurich • Alexander Platz • Alexander H. Schmidt
DKMS Lifeline Cord Blood Bank, Dresden, Germany

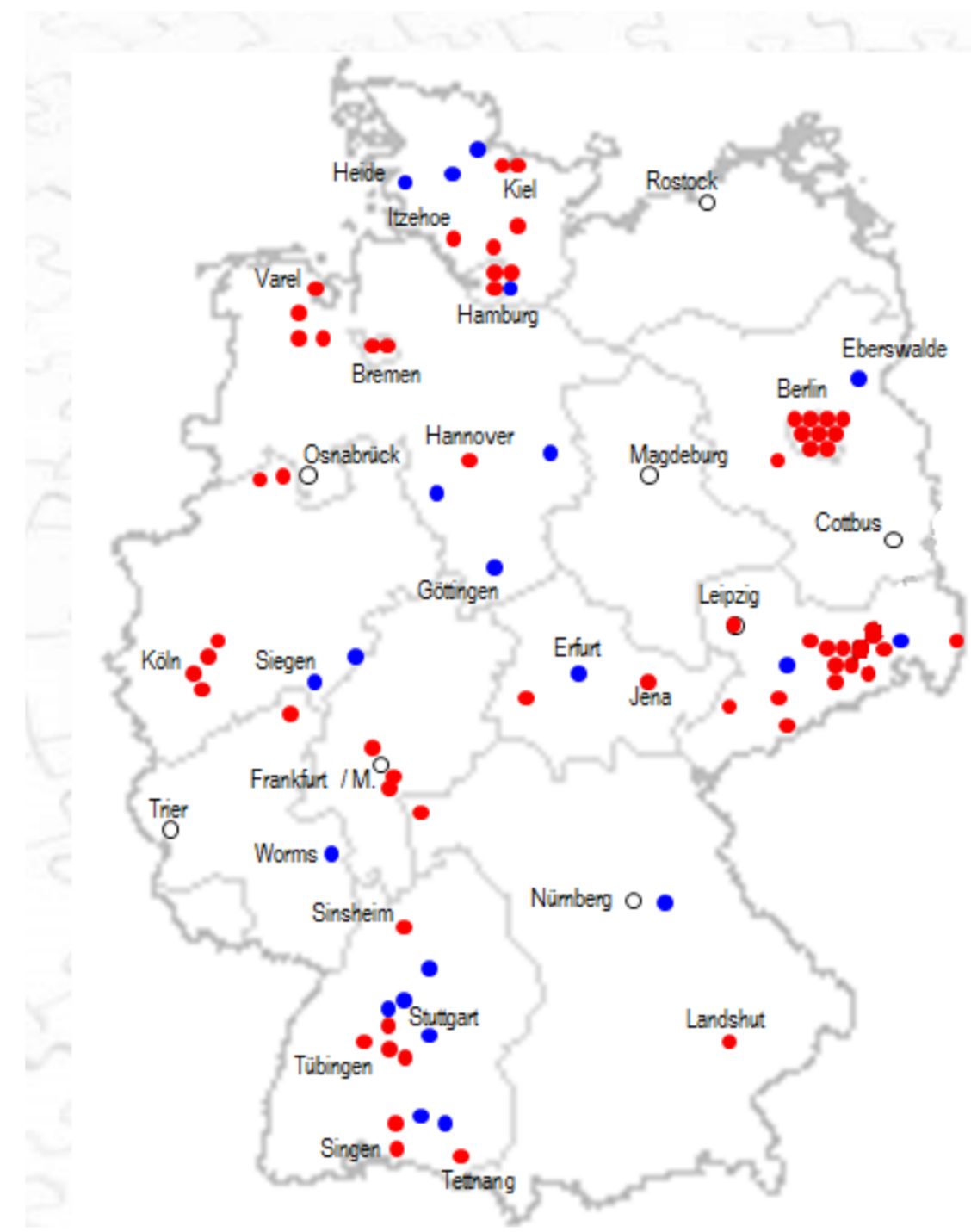
BACKGROUND

The **quality of the collaboration** of a cord blood bank with its collection sites plays an important role in the production of cord blood units (CBUs). As an important part of the quality assurance system, the participating clinics have to ensure the **specified quality requirements** during the collection process.

In April 2012 175 collection sites throughout Germany contributed to the DKMS Lifeline CBB program, all of them clinics for gynecology and obstetrics.

The quality of participation of the individual clinics varied widely from highly motivated and active clinics to those with almost no activity.

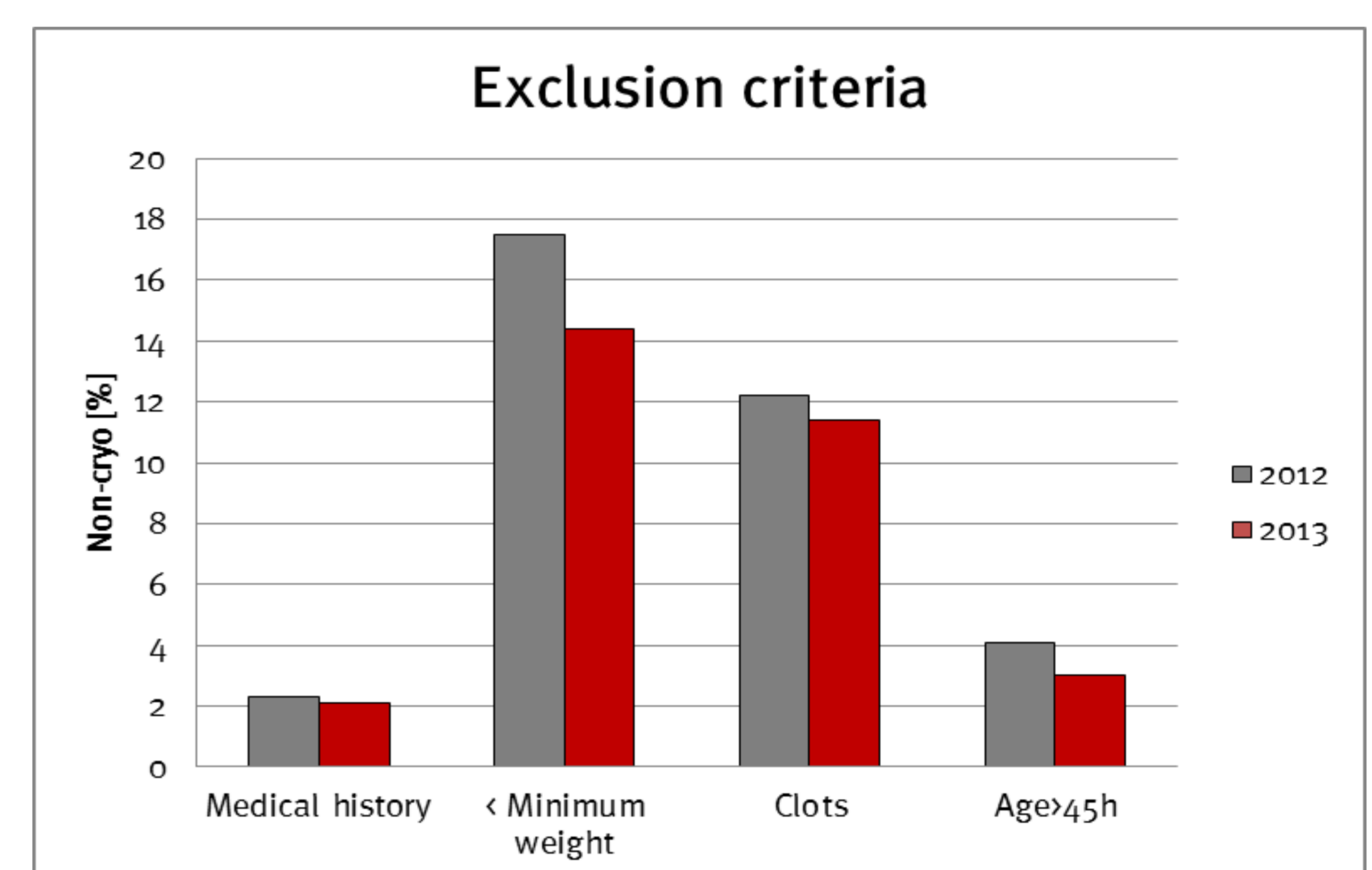
In order to **increase the overall quality of supervision** and to **increase the inventory of high-quality preparations**, the number of participating clinics was gradually reduced in 2013.



RESULTS

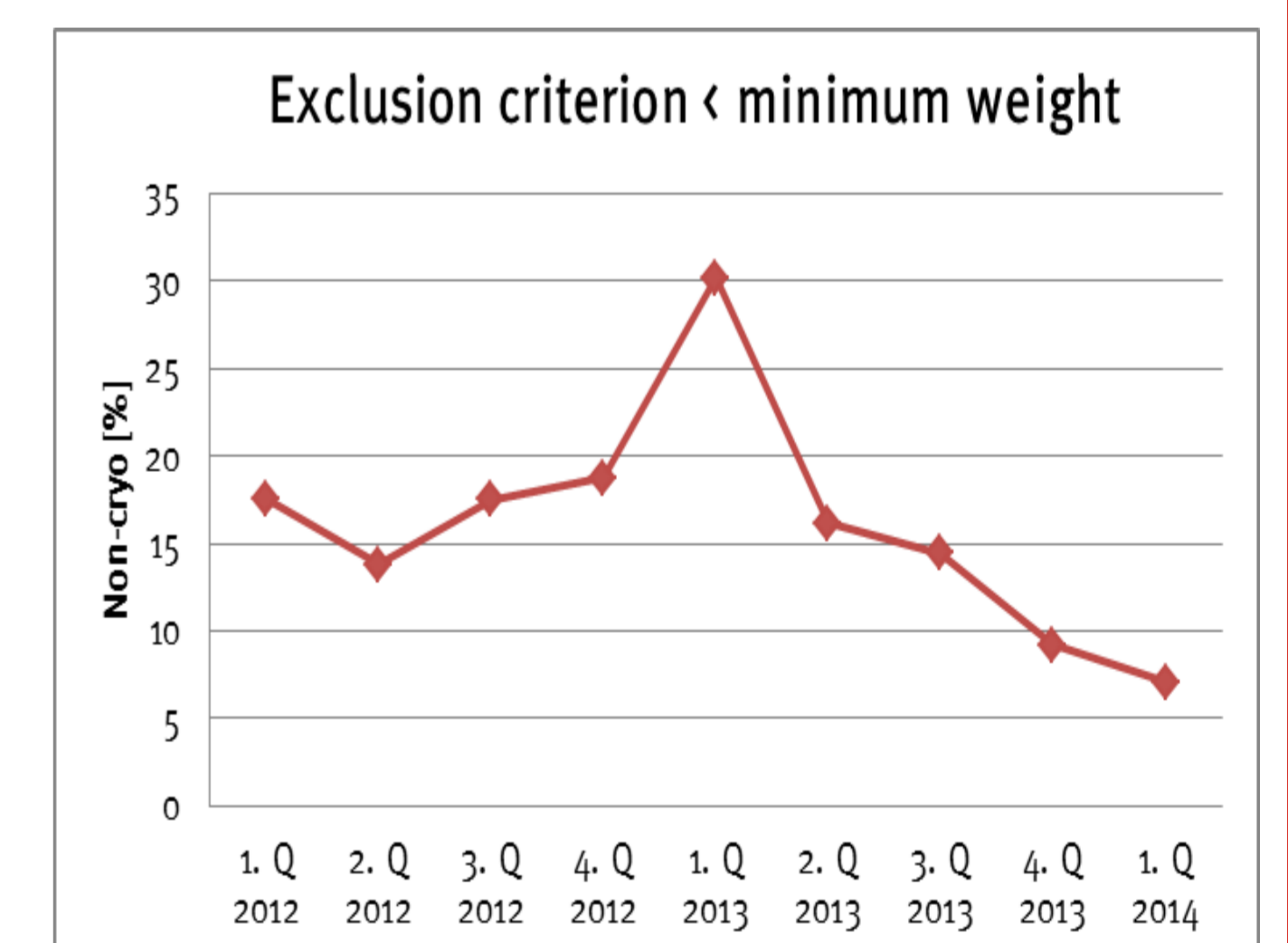
In 2012 an average of 27 clinics was assigned to each clinic supervisor. By **reducing the collection sites** the ratio decreased from 1:27 to 1:14, which is roughly a factor of two. The personal resources gained by this reduction facilitated a **more intensive**

supervision of the remaining clinics. In parallel, a **direct and short-time feedback system** for the contributing collection sites was established that enhances the quality report given to the clinics every six months, especially in terms of response time.



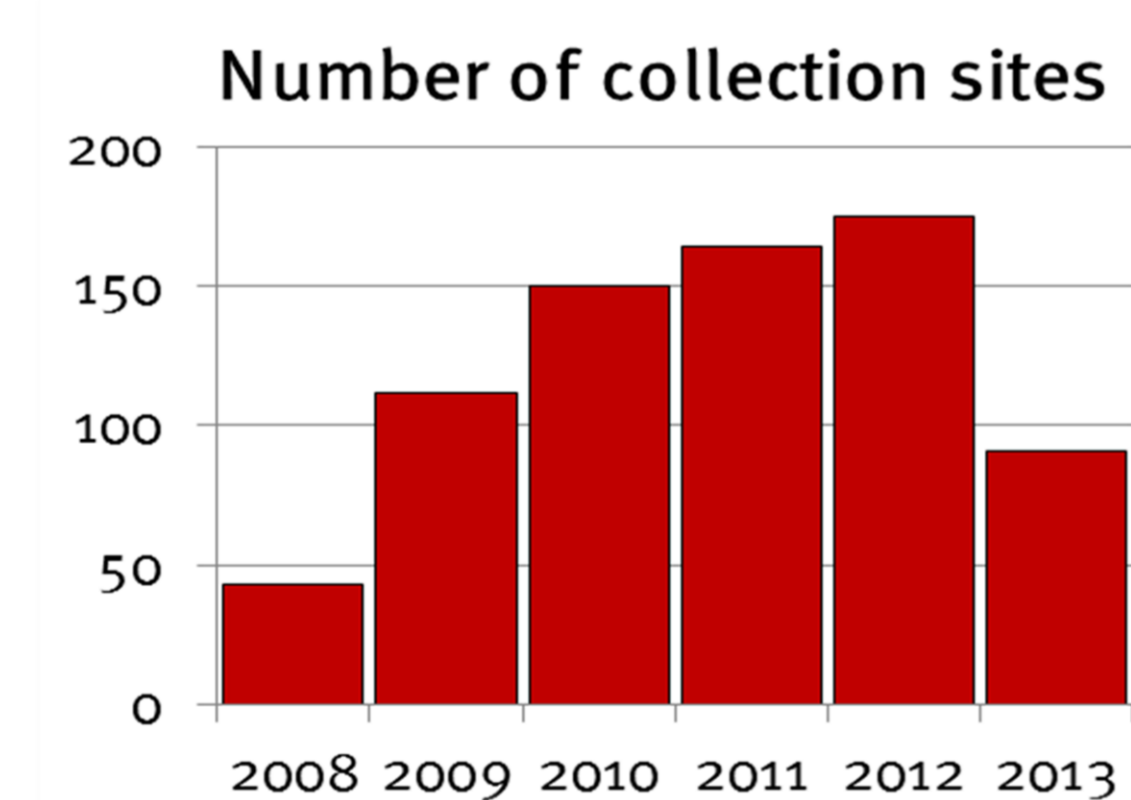
A comparison between 2012 (the year before reduction) and 2013 showed that the amount of submitted **low-volume preparations** that did not reach the minimum weight dropped from 17.5% to 14.4%, this trend obviously continues in 2014. **Over-aged specimens** with an age of >45 h post-harvest decreased from 4.1% to 3%. In addition, a decline in the preparations to be excluded due to **clot formation** could be observed (2012: 12.2%, 2013: 11.4%) as well as of those that had to be rejected due to the **donor's medical history** (2012:

2.3%, 2013: 2.1%). Furthermore a total **increase of 11% in primary storage rate** (incoming units divided by processed units) could be documented (2012: 42%, 2013: 53%).



MATERIAL and METHODS

In 2013 the DKMS Lifeline CBB **reduced the number of participating collection sites** by nearly 50% from 175 in March/April 2012 to 91 in December 2013.



With the aim of assessing the performance of individual clinics, different selection criteria have been used such as the **sending rate** to the stored CBUs, the **quality** of the stored CBUs and the **clinic activity** calculated as the ratio of annual collection set-consumption divided by the annual number of births in each clinic.

CONCLUSIONS

Parallel to the reduction of collection sites in 2013 an increase in the overall quality of the cord blood collections could be observed. This effect is attributed to the better quality of supervision resulting from an increase of the supervisor-to-clinic ratio and contact events. The first prospects in 2014

seem to confirm these trends. These results encourage to hold on to this corrective action in order to further improvement of collection site performance.