Introduction
Worldwide, 37 million people are infected with HIV and more than 50 % are women. Mother-to-child transmission (MTCT) of HIV may occur during pregnancy, delivery and lactation. Currently, MTCT can be reduced < 1 %.
In recent years, national and international guidelines for HIV treatment and HIV treatment in pregnancy have changed considerably. Every HIV-infected person receives antiretroviral therapy regardless of CD4+ T-cell count. Furthermore, in women with suppressed HIV viral load, vaginal delivery is recommended.
The intention of this study was to describe the development over the last decade regarding: (1) course of pregnancy of HIV-infected women, (2) mode of delivery, and (3) post-exposure prophylaxis of the newborn.

Methodology
In this retrospective study we analyzed data from HIV-infected women who between 2005 and 2016 received care at the HIV outpatient department and gave birth at the Department of Obstetrics, University Hospital Bonn. Furthermore, neonatal data was collected and HIV-MTCT was evaluated.

Results
During the study period, 87 pregnancies in 61 women were identified. Eighty babies were born alive, 70 of them at the Department of Obstetrics, University Hospital Bonn.

Characteristics of the HIV-infected pregnant women
The women were 53 % of African, 44 % of Caucasian and 3 % of Asian ethnicity. During the study period, HIV infection was diagnosed in 19 % of the women during pregnancy, 73 % during the first trimester.
The median of CD4+ cell count antenatally was 510 cells/μl (IQR 444) and in 32 women (52 %) CD4+ was above 500 cells/μl. A severe immune deficiency was present in 13 % of the women with a CD4+ cell count < 200 cells/μl.
HI viral load was entirely suppressed antenatally (< 50 HIV-1-RNA copies/ml) in 77 % women and in 92 % < 400 HIV-1-RNA copies/ml.

Obstetrics parameters
After the guidelines had been changed, the elective cesarean section rate decreased considerably from 77 % between 2005 and 2011 to 58 % in the years 2012–2016. In particular, the elective cesarean section rate decreased even further to 20 % in 2016. The proportion of deliveries after 37 weeks of gestation increased from 60 % to 69 % after the year 2012.

Neonatal data and post-exposure prophylaxis
Whereas birth weight of 78 % of the newborns ranged between the 10th and 90th percentile in the years 2005–2011, the proportion increased to 92 % after 2012. Fifty-four newborns (77 %) were classified as having low to normal HIV transmission risk. A vertical HIV transmission from mother to child did not occur (0/70).

Discussion
This retrospective analysis demonstrates the remarkable improvements made in the prevention of HIV mother-to-child transmission over the last decade. The results provide insight into the interdisciplinary care of HIV-infected, pregnant women in real life circumstances and show how implementation of new guidelines affects daily medical practice. The elective cesarean section rate fell significantly as well as the rate of premature births.
Interdisciplinary collaboration in the treatment of HIV in pregnancy is of the utmost significance and builds the basis for successful treatment of HIV in pregnancy.