

# STATUS REPORT: LOOKBACK ON TRANSFUSED PRODUCTS OF A T. CRUZI-POSITIVE BLOOD DONOR

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## Background

Chagas disease, caused by *T. cruzi*, is endemic in Latin America. Humans can be infected by a vector's sting secondary polluted by its feces (Fig. 1), by materno-fetal transmission or breast feeding, organ transplantation or blood transfusion. In more than 10 % the infection can end fatally after a chronic phase for years.

Migration has expanded the disease's distribution. In 2010, Jackson [1] found a high prevalence of Chagas among Latin American migrants in Switzerland and suggested a screening of individuals at risk.

Starting 01/2013 B-CH [2] advised its services to implement a donor history based *T. cruzi* testing. Up to now [3] at ZHBSD [4] 665 tests were performed, and in 09/2013 one positive donor was identified.

The donor migrated from Brasil and gave blood at ZHBSD since 1992. Out of 54 donations, 77 products (22 EC [5], 27 TC [6], 12 FFP [7] and 16 FPI [8], see Fig. 2) were delivered to 13 hospitals as well as labs and 1 plasma fractionating company. ZHBSD decided to initiate a voluntary lookback procedure (LB).



Fig.1: *Triatoma infestans*, a vector for *Trypanosoma cruzi*

## Methods

According to established mandatory LB for HIV and Hepatitis the addressees were informed so as to identify and to test transfused patients.

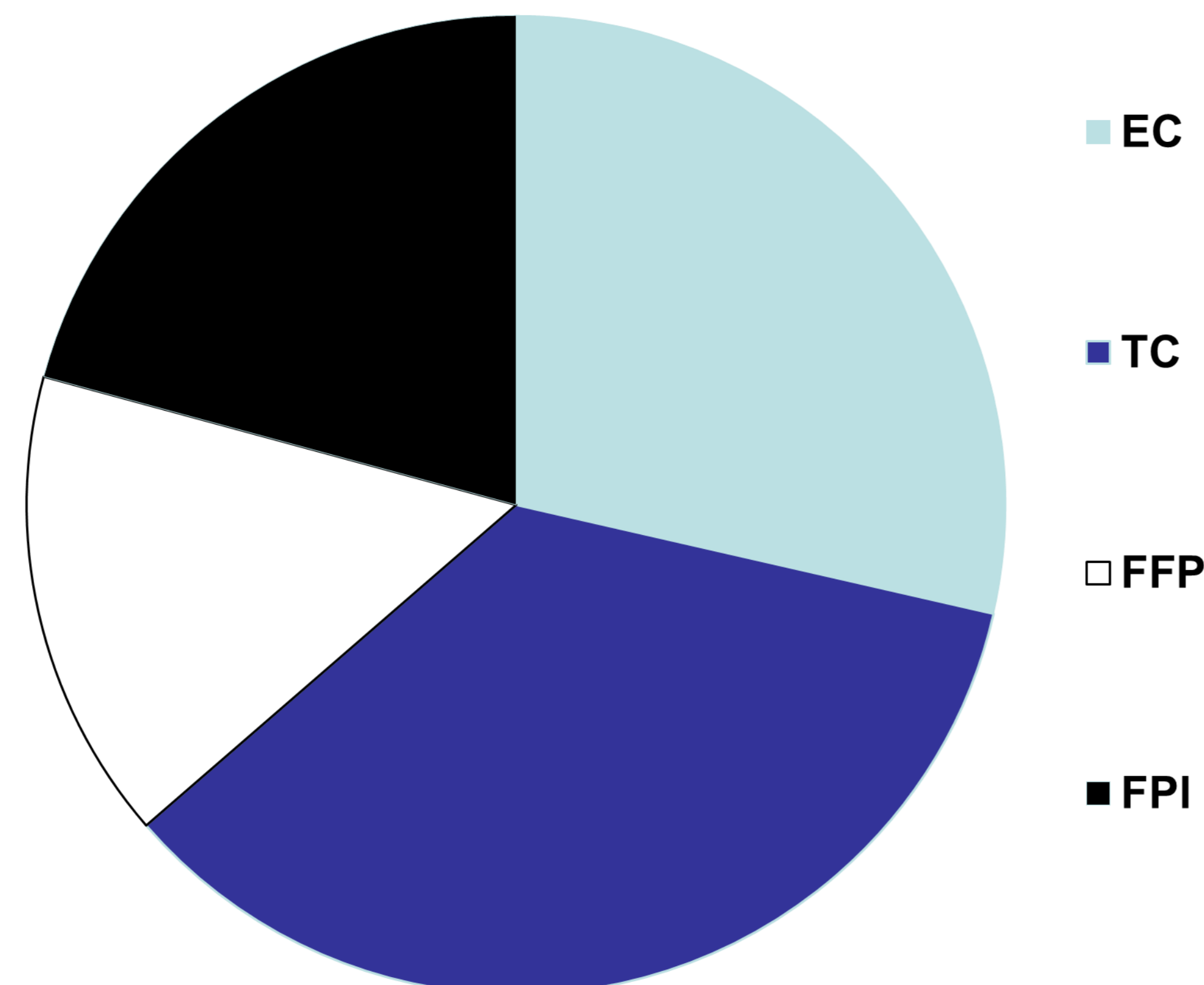


Fig. 2: Quota of involved blood products

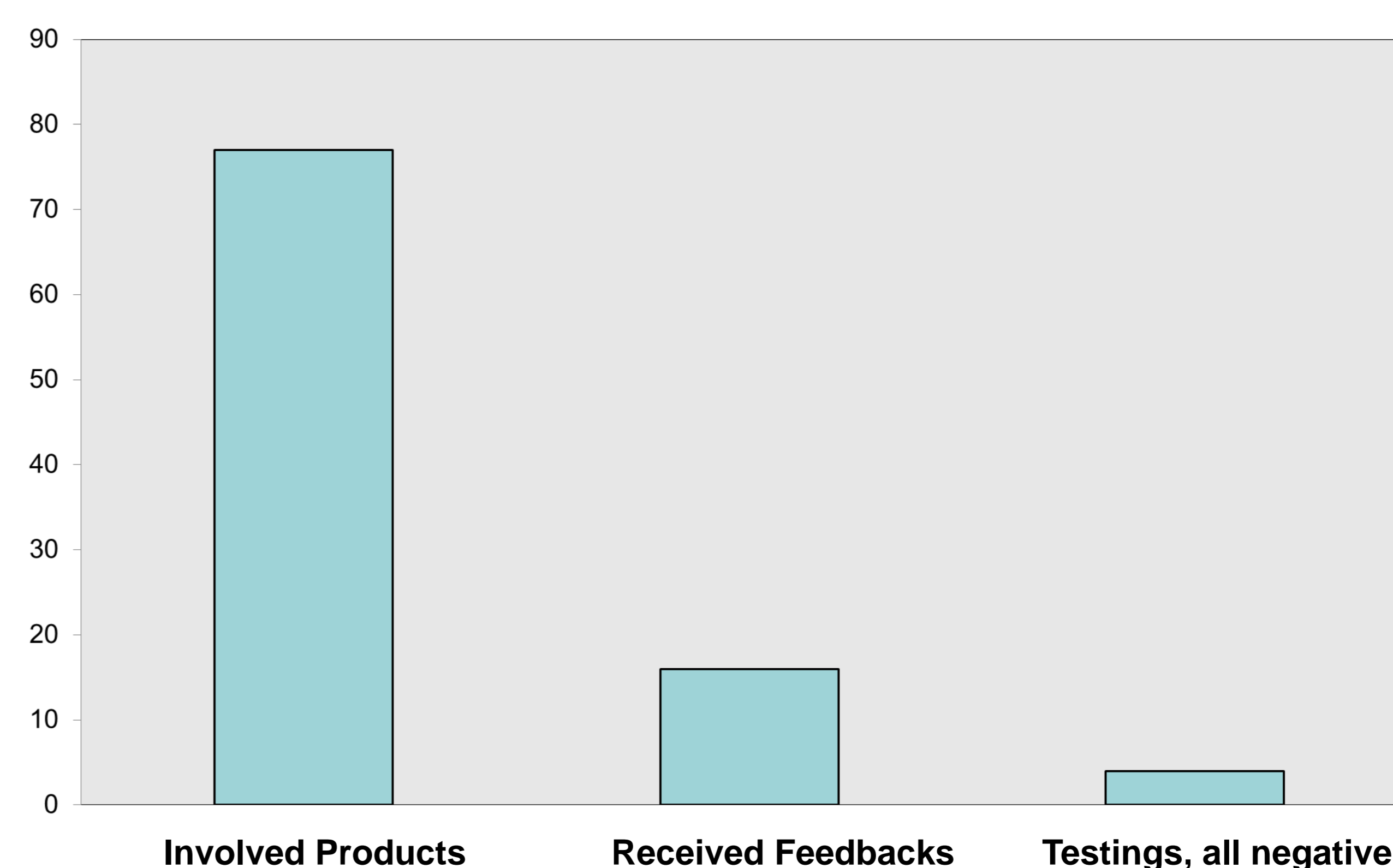


Fig. 3: Product-Response-Relation

## Results

Up to now [3] response is poor, see Fig. 3. There were only 16 patient feedbacks, and most of these have died from their primary diseases. 1 patient died shortly after transfusion, but it seems there is no evidence for causality with Chagas. In 4 cases patient testings were possible, but showed negative results.

## Discussion

Customer response was limited, perhaps due to the long time since product delivery in some cases (max. 21 years). When we received feedbacks, the patients mostly have already died. It seems to be favorable to start a follow up query on products that have been delivered in the last 5 years. A focus should be laid on TC recipients, for this is the product with heaped transmission reports.

## References

<sup>1</sup> Jackson et al., PLoS Negl Trop Dis 4(2): e 592. Doi:10.1371/journal.pntd.0000592

<sup>2</sup> Swiss Red Cross Blood Donation Service

<sup>3</sup> 05/2014

<sup>4</sup> Zürcher Blutspendedienst SRK

<sup>5</sup> Erythrocyte concentrates

<sup>6</sup> Thrombocyte concentrates (not pathogen-inactivated)

<sup>7</sup> Fresh frozen plasmas

<sup>8</sup> Plasmas for fractionation