

A provincial redistribution system to prevent wastage of clotting factor concentrates: 6.5 year update

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OBJECTIVE

There are more than 540 patients with severe hemophilia A and B or severe von Willebrand disease in the province of Ontario, Canada.

Clotting factor concentrates (CFC) for these patients are ordered by nine regional hemophilia treatment centres (HTC), and are distributed through transfusion medicine services (TMS) at the HTC site or one of the >150 other hospitals in the province.

Many community hospitals maintain inventories of CFC for possible emergency use; however since few patients with congenital bleeding disorders may live in their vicinity, they are often unable to issue these CFC before they expire.

In order to reduce wastage of CFC, we designed a provincial program called the Factor Concentrate Redistribution Program (FCRP) in which CFC near expiry (or presumed unusable) is shipped to the HTC at St. Michael's Hospital, the largest HTC in Ontario with an enrolment of over 500 patient with hemophilia of all severities.

METHOD

Due to the success of the FCRP, the Ministry of Health's Ontario Regional Blood Coordinating Network (ORBCoN) sought out guidance and partnership to create a redistribution program for all other plasma protein products (PPP) in Ontario, Canada.



Using data provided by the Canadian Blood Services (CBS), a provincial stock report is created monthly and disseminated to each TMS in Ontario. The report provides a list of possible short dating products and TMS uses this report to check their inventory for these CFC as well as any other short dated plasma protein products.

Hospitals have been asked to sign a Memorandum of Understanding with the Ministry of Health. The purpose of the memorandum is to establish cooperation between hospitals receiving PPP from CBS to implement redistribution of PPP nearing expiry, reducing any unnecessary discard of product.

This is the first time hospitals have been asked to report to the Ministry of Health any wastage or discard of plasma protein products, including CFCs.

ACKNOWLEDGEMENT

This program could not have accomplished our successes without the hard work and dedication of the St. Michaels team at the Hemophilia Treatment Centre and Transfusion Medicine Services. We would also like to acknowledge the patients who have gone above and beyond to ensure the short dated product is used before expiring.



METHOD

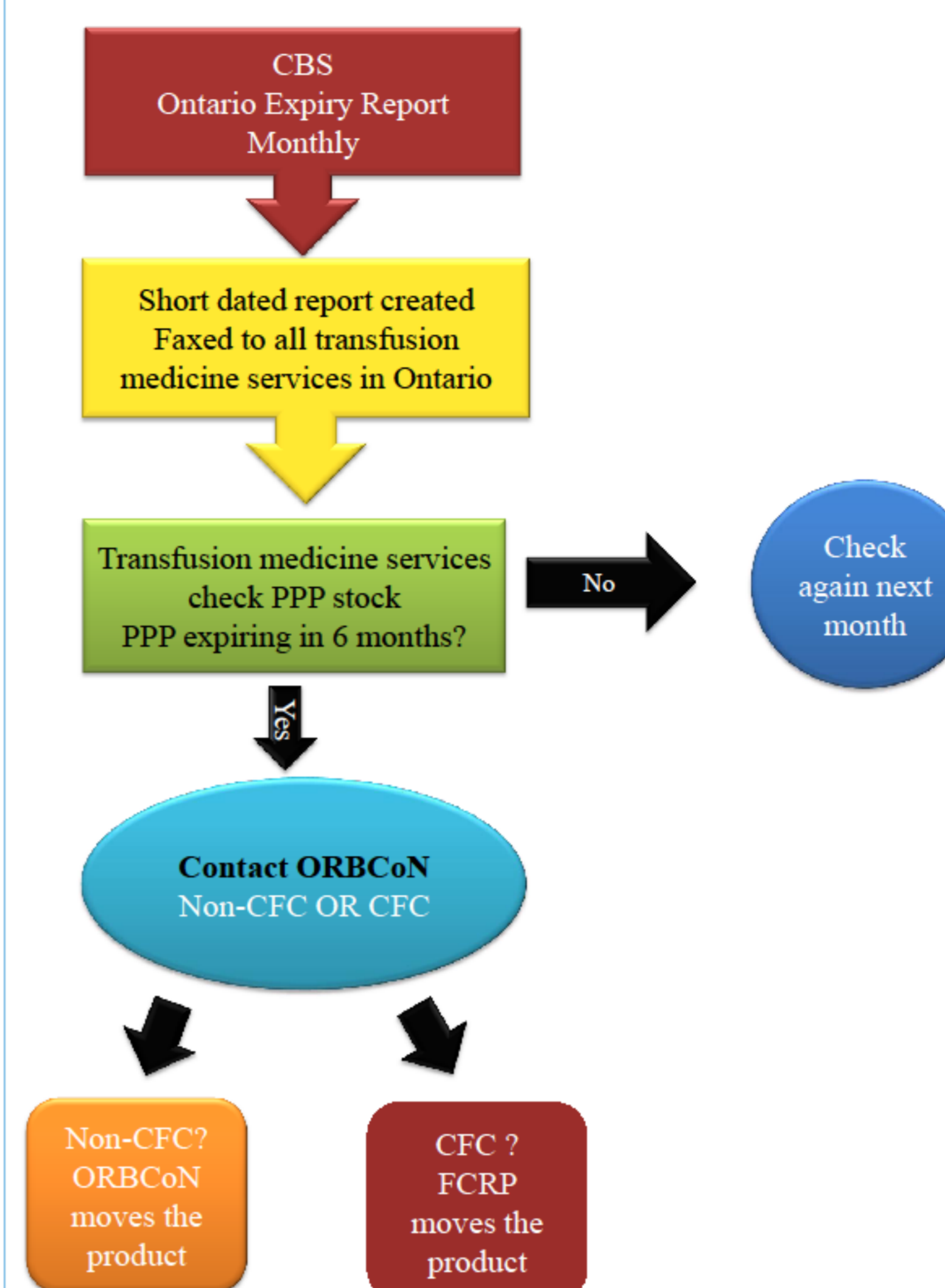


Illustration 1.

Illustration 1 explains the new process to redistribute any PPP in Ontario. When a hospital reports short dating product they have one central line to contact and depending on the product, it is either moved by ORBCoN or the FCRP.

The FCRP must maintain full control over the CFC short dating in Ontario. We use our network of HTC to ensure the product is moved to the correct hospital for the correct patient.

RESULTS

Since the program began in 2007, the FCRP has redistributed over 2, 603, 000 IU of clotting factor concentrates (and 2089 mg of rFVIIa), with a value of over CDN \$4,756,000. Figure 1 illustrates the specific products redistributed over 6.5 years.

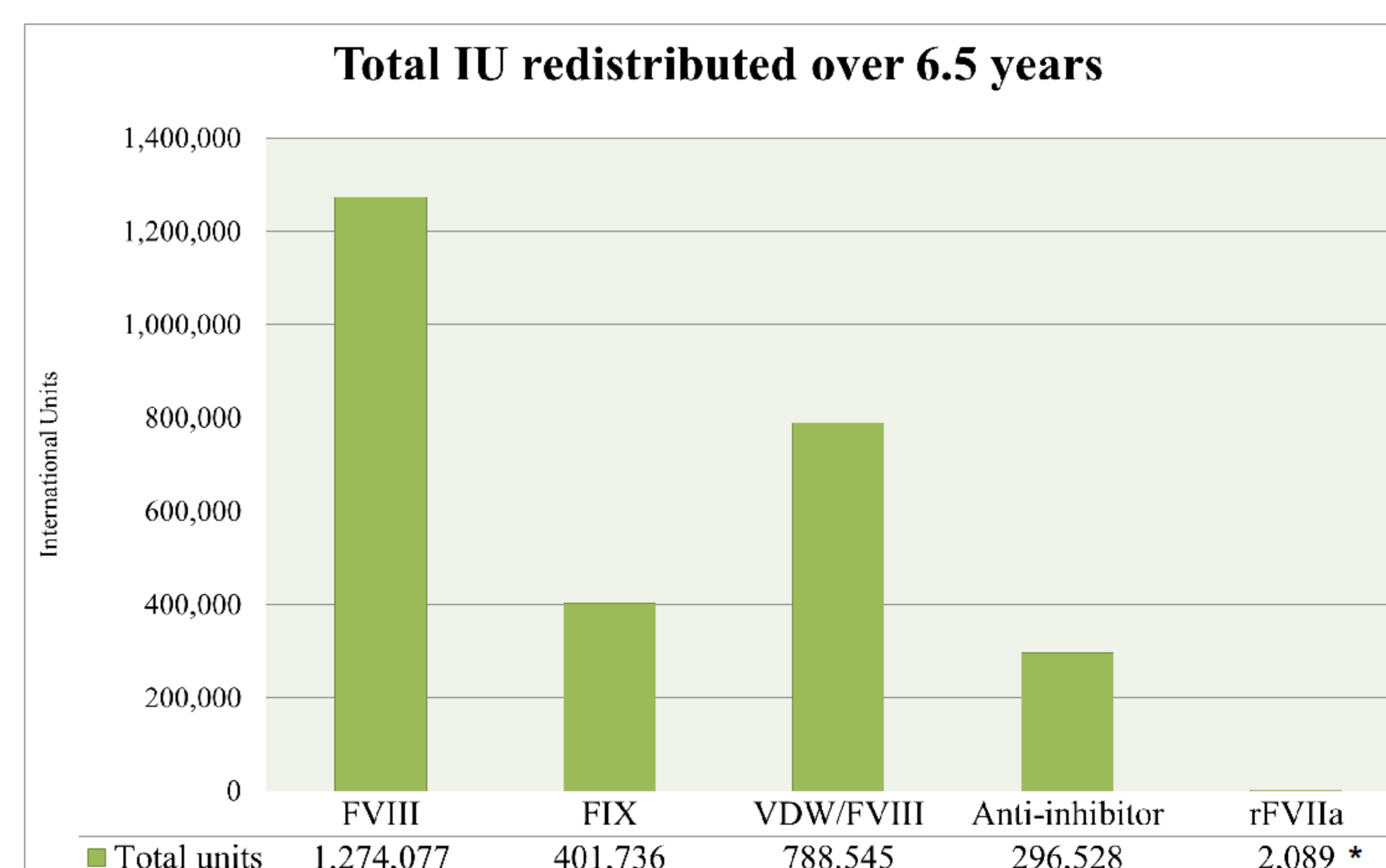


Figure 1.
* micrograms

The FCRP has been successful in redistributing the majority of CFC reported, discarding only 2% of the overall savings. The program is funded \$5600 CDN per year for staffing and transportation of CFC.

There has been considerably more rFVIIa redistributed in the past 3 years. We contribute this to unpredictability of use, change in product at industry level and a shorter expiry date.

SUMMARY

The Factor Concentrate Redistribution Program has been able to significantly reduce the potential wasting of clotting factor concentrates over 6.5 years.

With a minimal operating cost, the program has saved over \$4.7M CDN worth of CFC, which might otherwise have become outdated and been discarded.

