

USING THE IMPROVEMENT SCIENCE IN FALL PREVENTION WORKSHOPS

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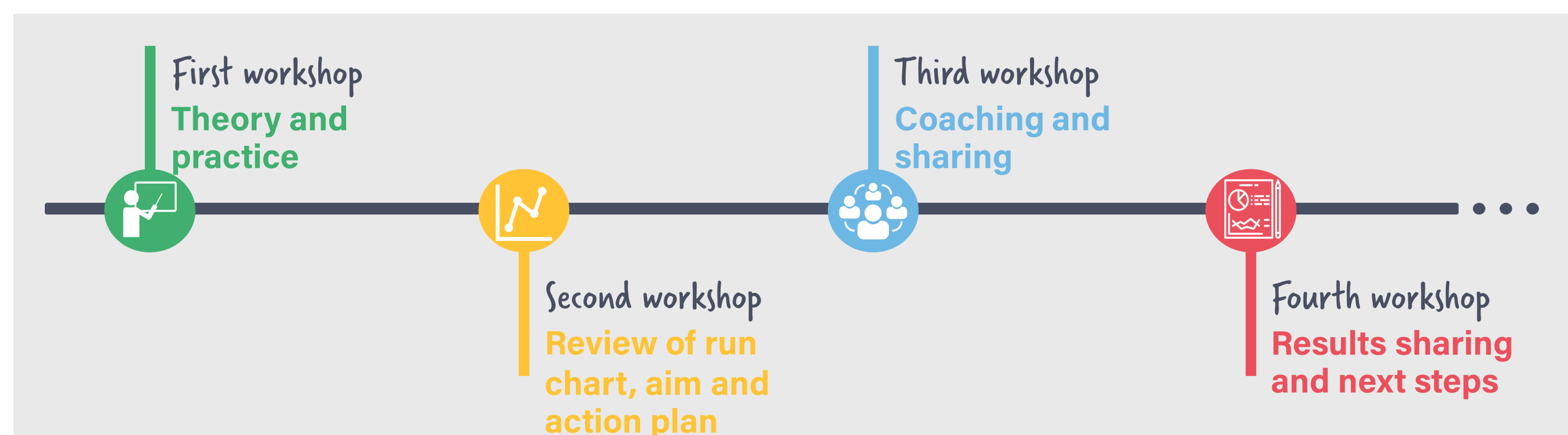
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Background

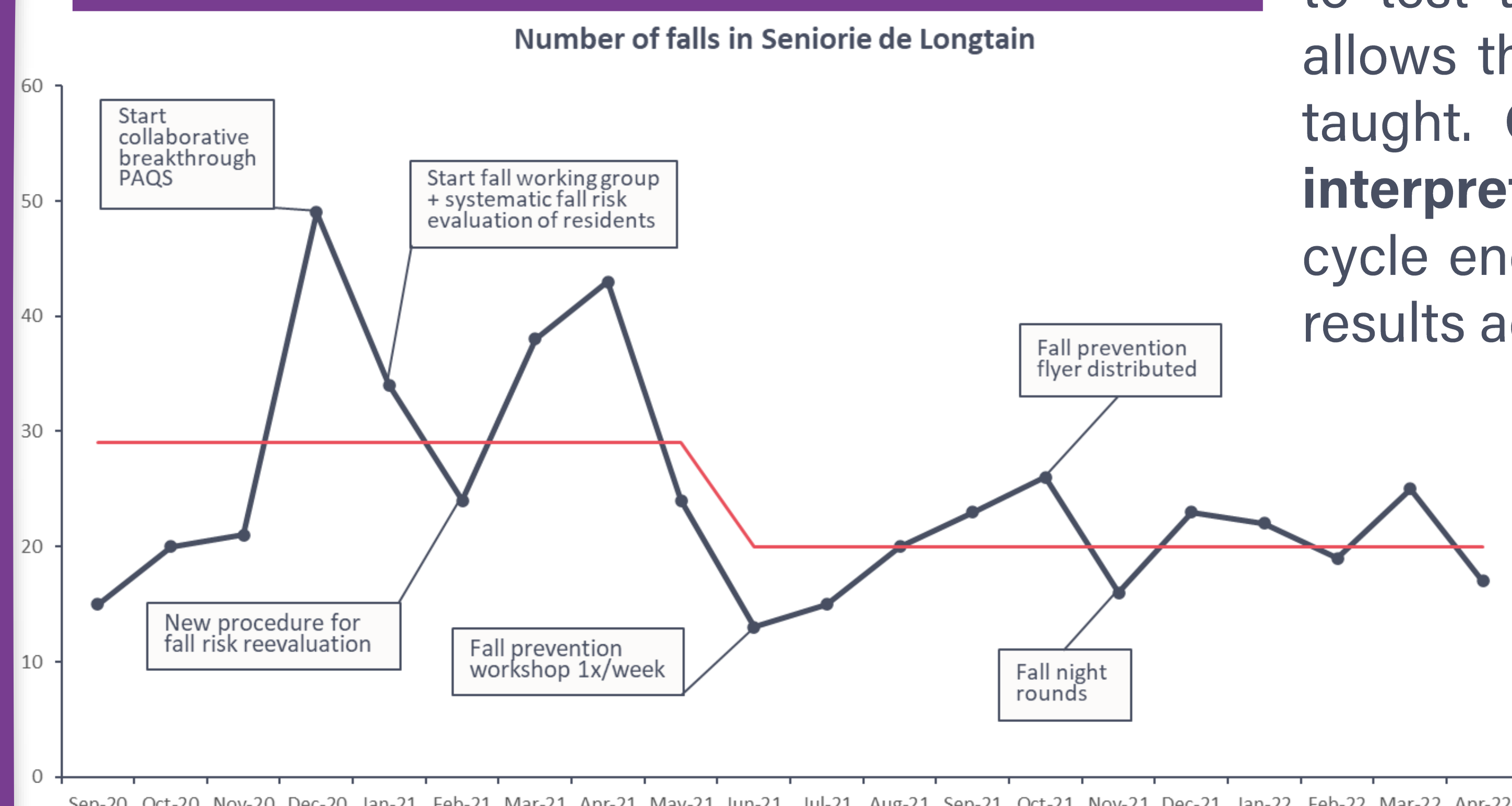
In French speaking Belgium, our organisation PAQS, helps health care institutions improve quality.

We used the IHI **improvement science** in our activities and used the **Breakthrough Series Collaborative** to reduce falls in nursing homes. The overall goal was to reduce falls by 25% in all participating nursing homes. We already have organised three cohorts (2019, 2021 and 2022) and significant results have been observed in three nursing homes.

Method



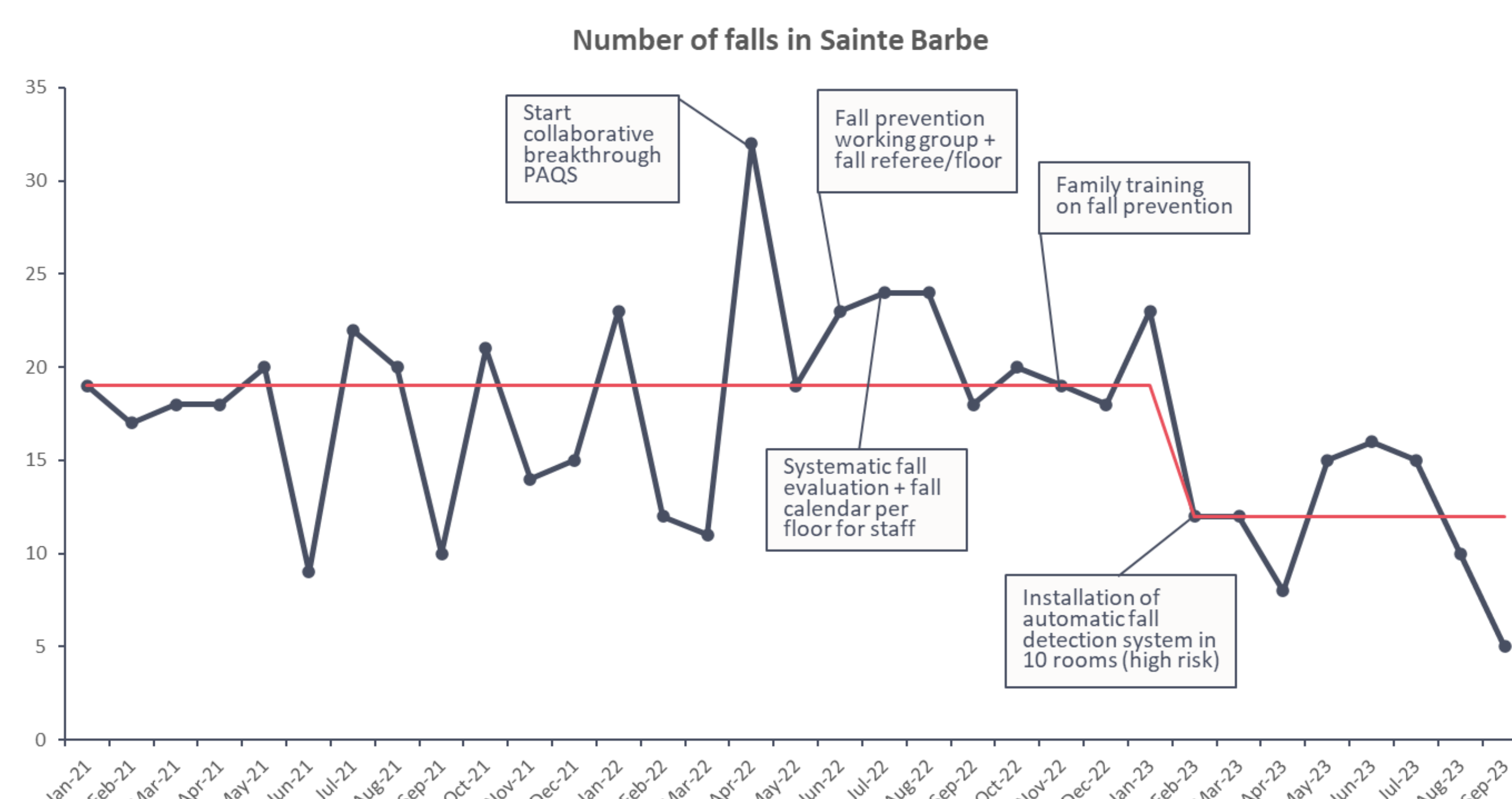
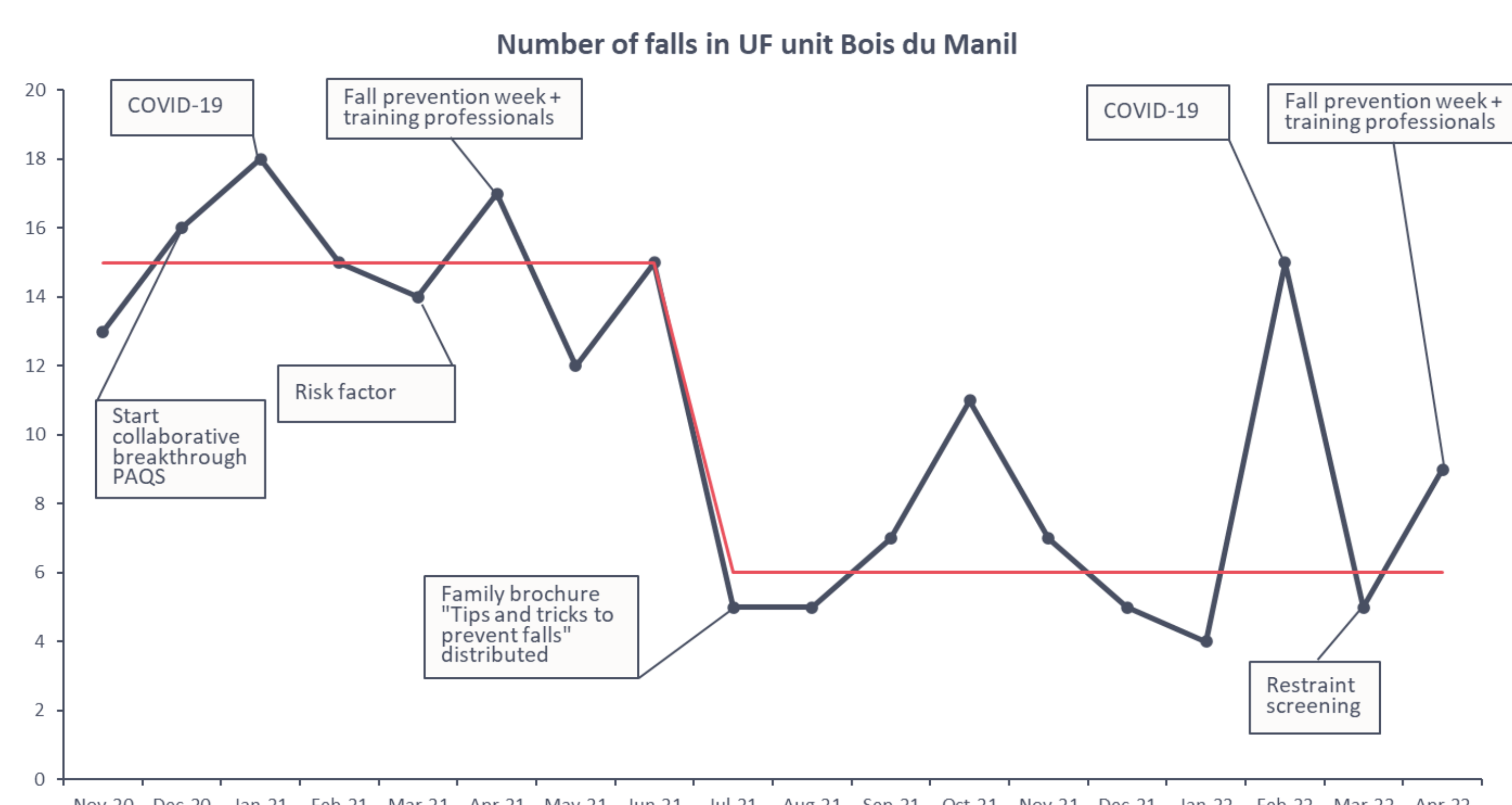
This program is divided into **four workshops** with different objectives. The first consists of providing the skills to define **SMART improvement objectives, identify system failures and improvement actions** to be tested and explain the different tools available to visualize and analyse indicators in **run charts**. After returning to the field to collect new data and to test the skills acquired over a period of time, the second workshop allows the institutions to discuss their methods of implementing the tools taught. On this day, PAQS also provides **methodological support for interpreting the various data and, finally in defining the next steps**. The cycle ends with the last two workshops at 18 and 24 months to share the results achieved and the experiences lived.



Results

Based on the model of improvement and its three questions: What are we trying to accomplish? How will we know whether a change is an improvement? What change(s) can we make that will result in improvement?, PAQS helped teams from two Belgian nursing homes in the application of this model and the use of the run chart between December 2020 and May 2022. The Seniorie de Longtain and the Bois du Manil residence were thus able to track the number of monthly falls over time, implement improvement actions and observe a **statistically significant decrease of 31% and 60%** respectively.

Between 2022 and 2023, in nursing home Sainte Barbe, the median number of falls per month fell from 19 to 12, a **decrease of 36.8%**, well above the initial target of 26%. The implementation of a video surveillance system in the rooms of residents at high risk of falls has led to a significant improvement since February 2023.



Conclusion

Breakthrough Series Collaborative is a great way to gather institutions around a common goal and allow them to share ideas over time. The improvement science used also helps institutions to have a solid project with measures. At the end, significant improvement was seen in three nursing homes. For the institutions that did not meet their goal, they were able to acquire the necessary skills to track their falls and take appropriate actions after an analysis of their results. Follow-up can be done to see if more institutions have achieved results.