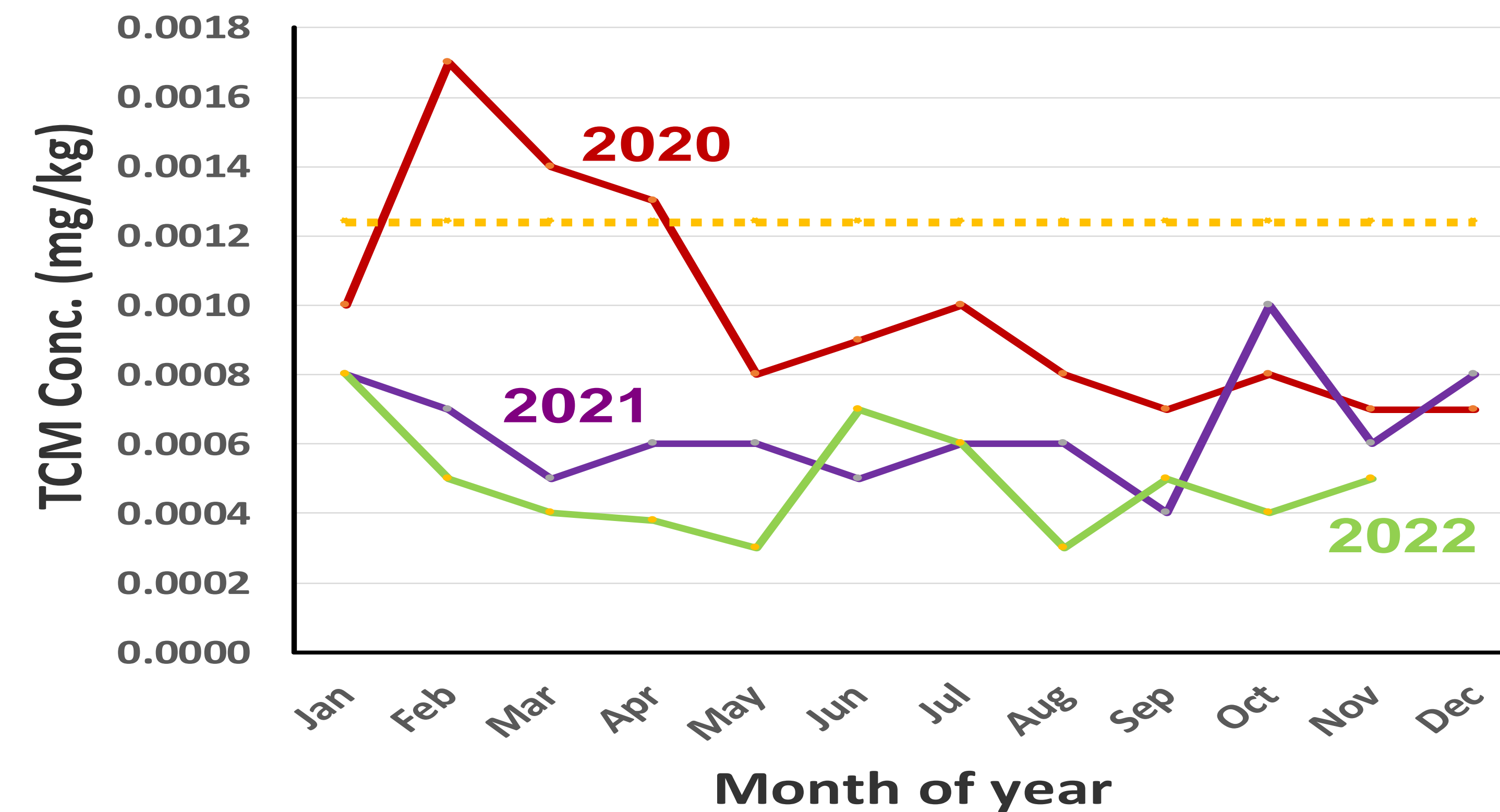


Challenges

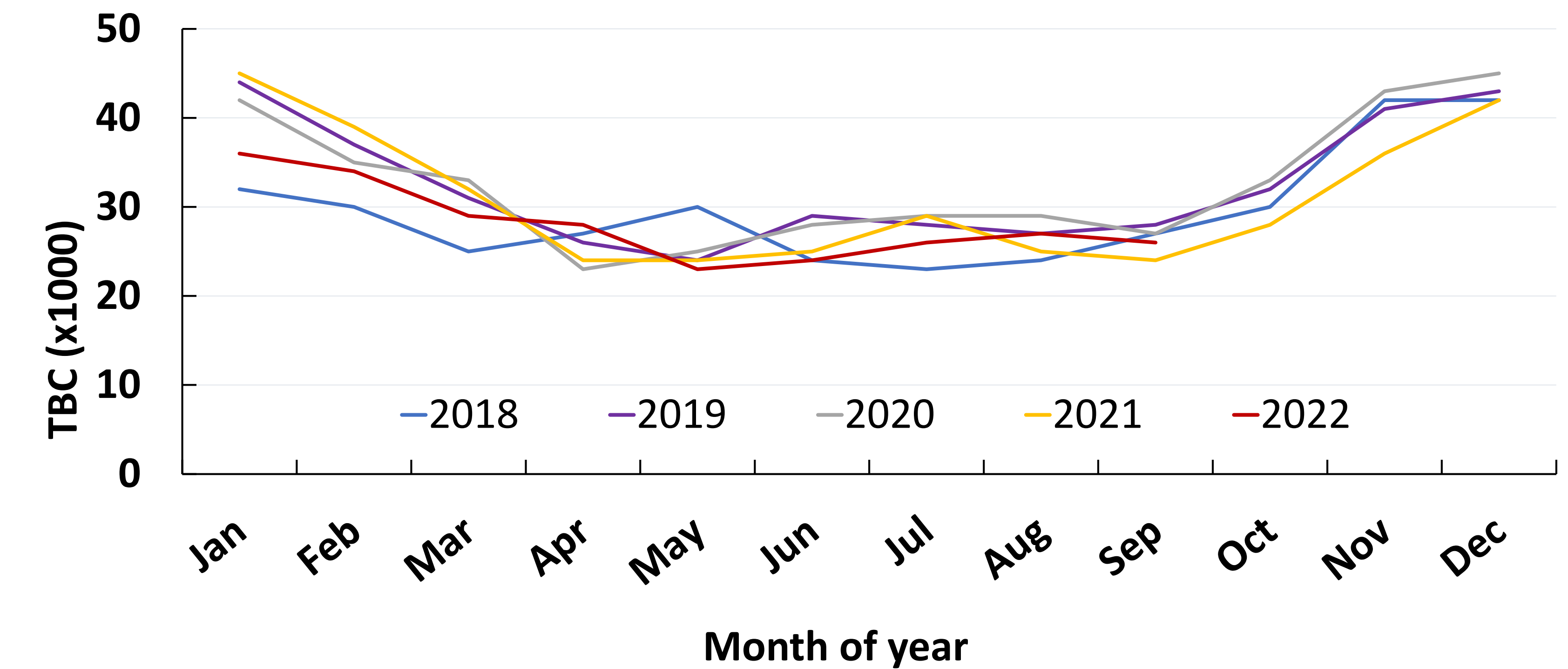
- TCM and chlorate
- Due to chlorine
- Chlorine free cleaning since Jan 2021
- Maintaining microbial quality of milk

Monthly average milk TCM levels across years 2020 to 2022



TCM within specifications

TBC in milks from a milk processor between 2019 and 2022



TBC did not increase with chlorine-free cleaning

However, thermoduric bacteria levels increased in 2021 and 2022

Take home message

TCM and chlorate residues can be maintained within spec with low TBC and thermoduric bacteria by:

- Appropriate chlorine-free cleaning protocol
- Adequate acid washes
- Adequate hot water
- Adequate detergent for cold and hot washes