

Background

- Canada has a publicly funded universal health care system, but not all residents have the same access to care, including that of a pharmacist
- Multidisciplinary telemedicine teams including pharmacists have demonstrated improved health outcomes
- Telemedicine, utilizing videoconferencing (VC) technology, has improved access to healthcare in remote communities; pharmacists have an opportunity to expand their care to patients who do not have in-person access to a pharmacist
- Patient eligibility for The Ontario Ministry of Health and Long-Term Care (MHLTC) MedsCheck Program requires the medication reviews to be conducted in-person
- For patients in isolated communities, without a community pharmacy, pharmacist medication reviews are non-existent

Description

- This prospective cohort pilot study included interviewing patients in two remote communities in the James Bay region of Ontario
- The primary objective was to describe the feasibility of utilizing VC technology for pharmacists to communicate with patients as an alternative to in-person medication reviews
- Secondary objectives were: to determine patient acceptability, time requirements to conduct medication reviews, describe the occurrence, causes, interventions and outcomes of medication-related problems identified and resolved by the pharmacist, and to describe barriers, inefficiencies and facilitators of VC interviews
- Patients who were eligible for a medication review (on at least three medications for chronic conditions or have diabetes) were interviewed at their local hospital/nursing station via encrypted VC (Ontario Telemedicine Network or OTN)

Action

- The pharmacist identified eligible patients via Kroll® Pharmacy Software.
- Eligible patients were contacted by telephone to set up a VC interview with the pharmacist
- The pharmacist used a motivational interviewing approach
- Identified drug therapy problems (DTP or DRP) were discussed with the patient and/or their prescribers
- Following the interview the patients were asked to complete an anonymous satisfaction survey on the pharmacist interview
- DTPs were documented using the Pharmaceutical Care Network Europe Foundation V6 classification system (PCNE V6)
- Barriers and facilitators of completing a medication review interview were documented by the pharmacist

Results

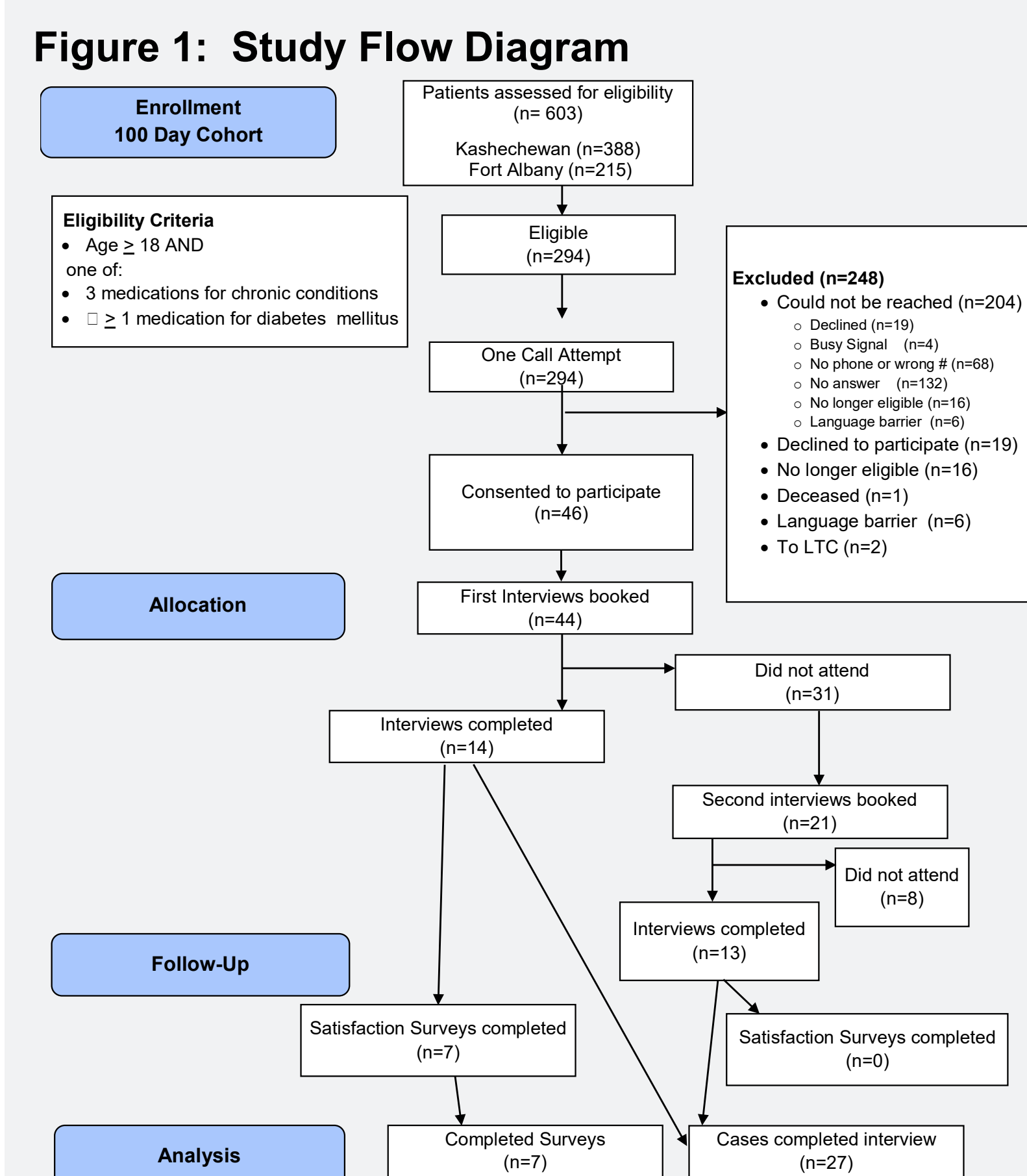


Figure 2: Patient at Risk of Drug Therapy Problem

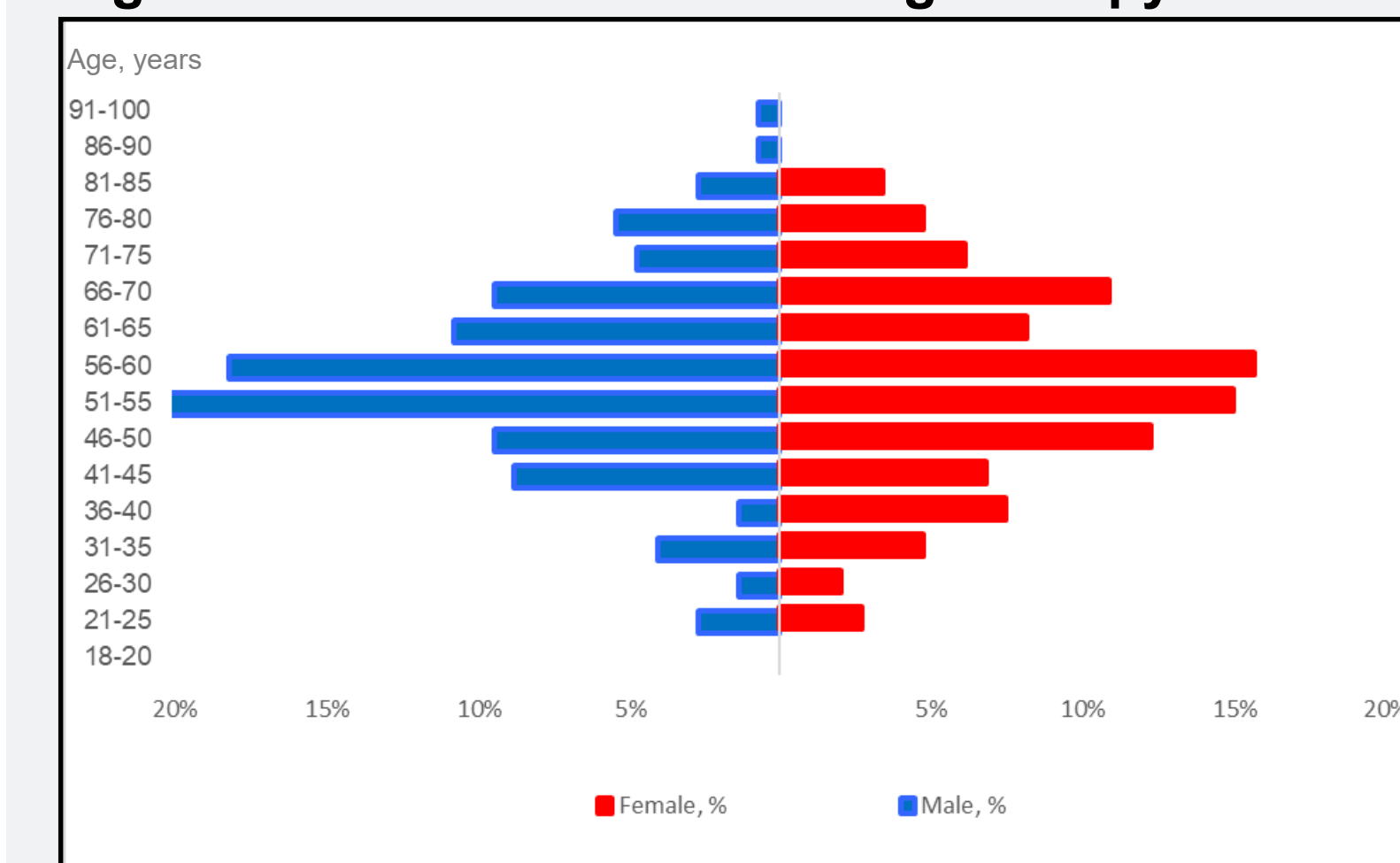


Figure 3: Study Participants

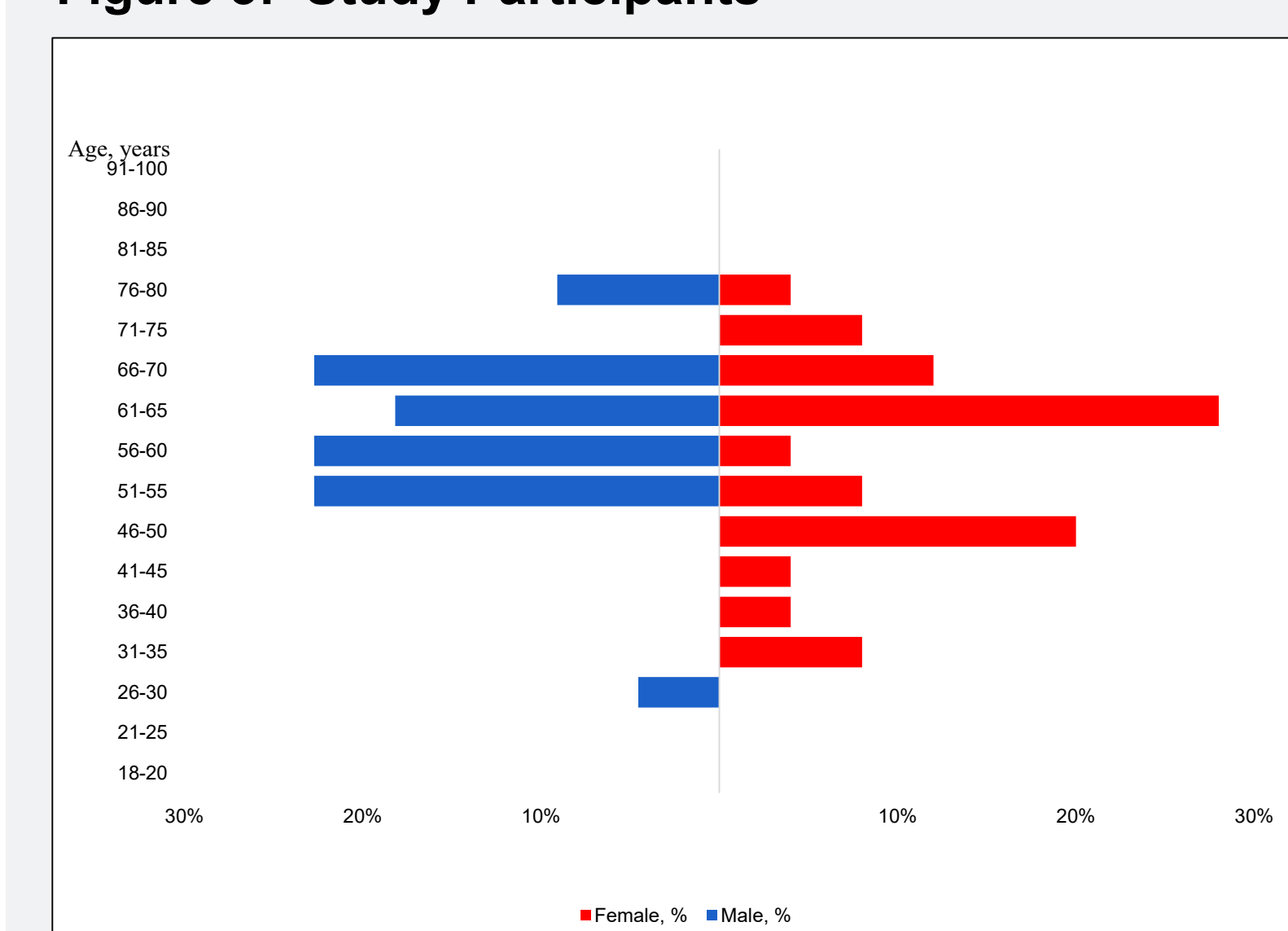


Table 1: Study Interview Characteristics

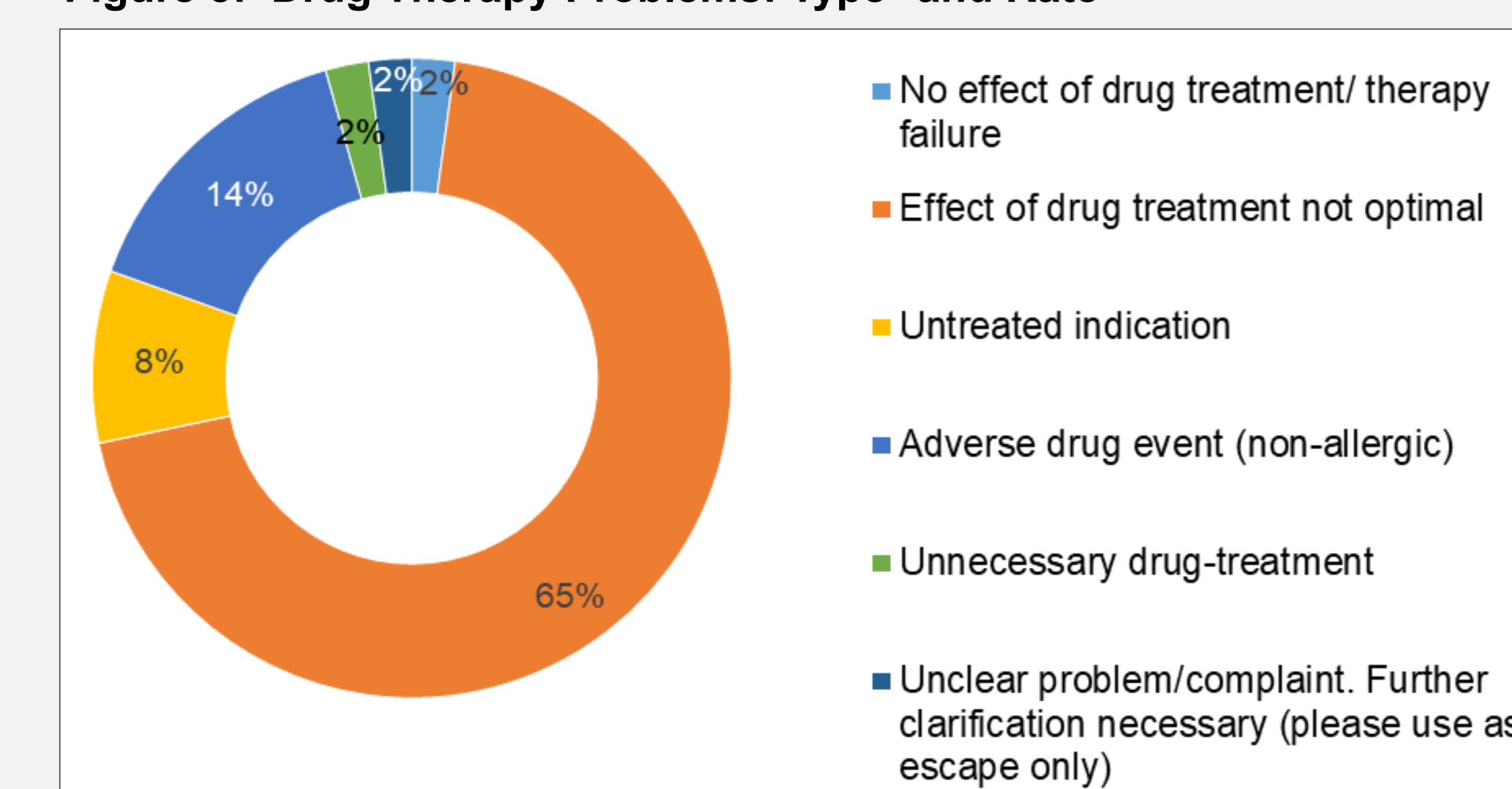
Interview characteristics	Value	SD
Average number of medication per patient, count	9.44	3.25
Average number of DRPs per patient, count	1.78	1.01
Average time for preparation per patient, min	13.89	4.87
Average duration of the interview per patient, min	19.56	5.88
Rate of Potential Problem, %	85	-
Rate of Manifest Problem, %	15	-
Rate of available physician approval, %	56	-
Rate of patient participation, %	61	-

Figure 4: James Bay Region, ON

- TRANSPORTATION**
- Commercial/charter aircraft
 - Train to Moosonee (400 km)
 - Barge to Moose Factory
 - Barge to other communities (summer)
 - Winter road as far as Attawapiskat

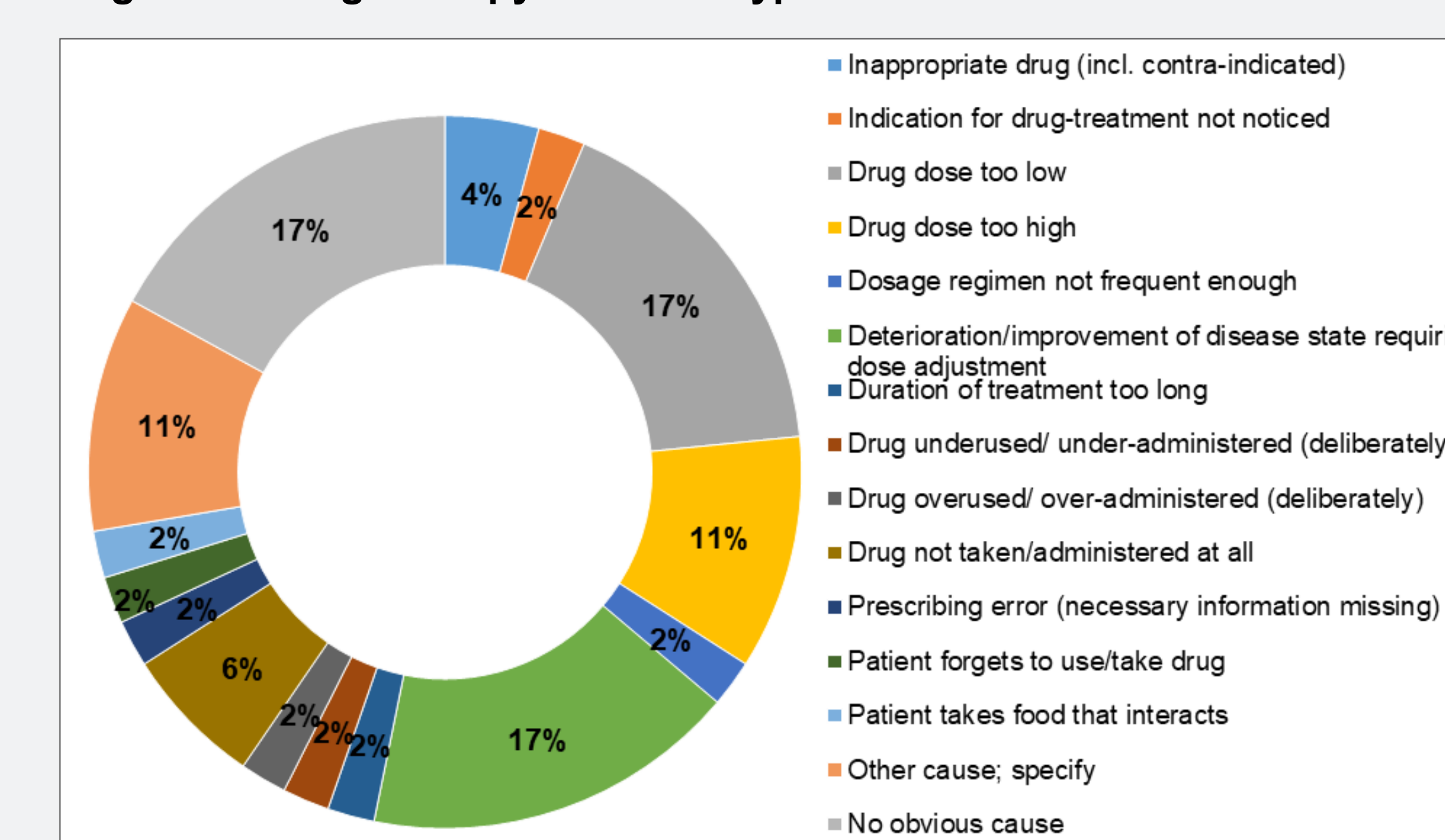


Figure 5: Drug Therapy Problems: Type* and Rate



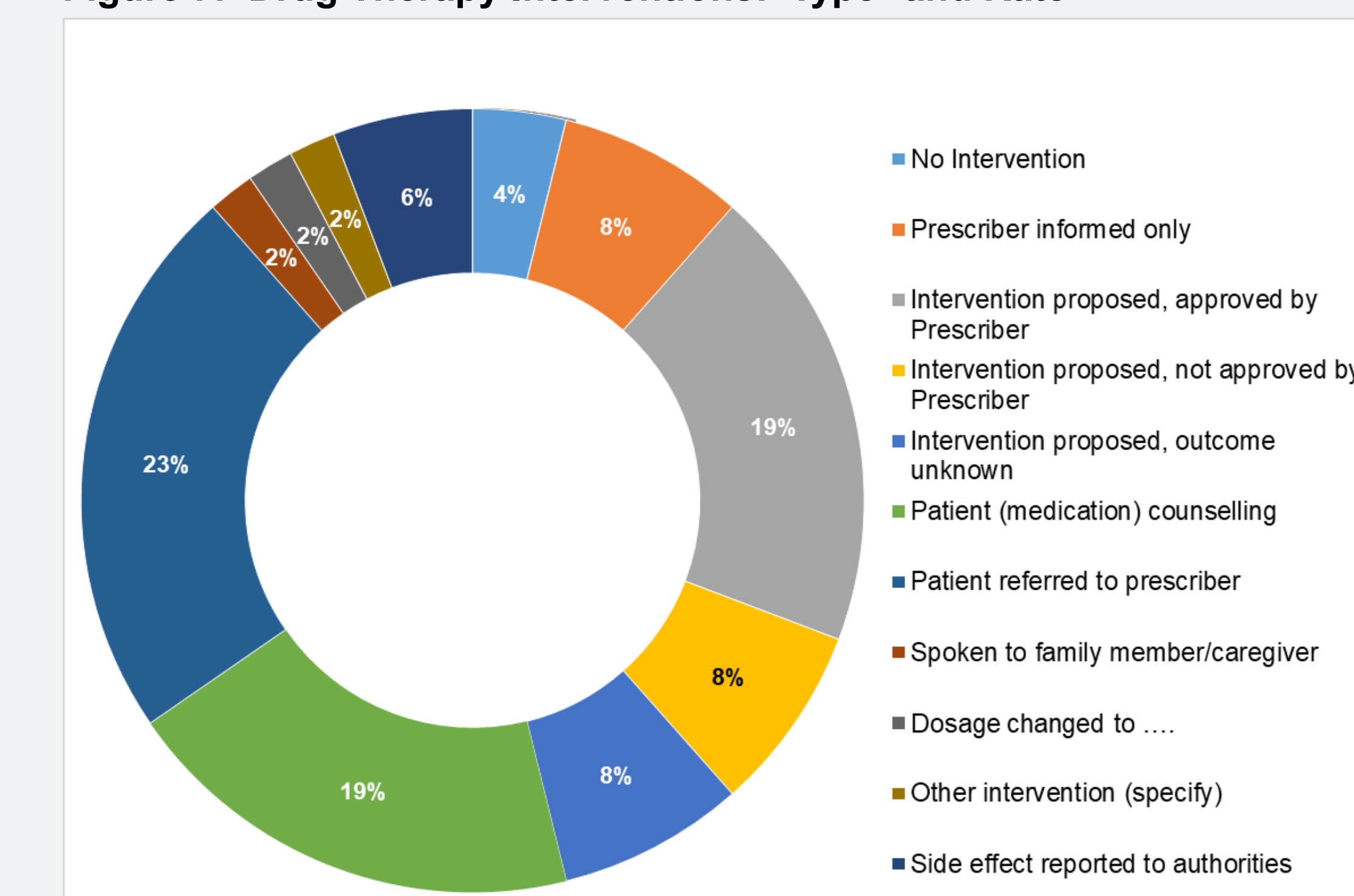
* Pharmaceutical Classification Network of Europe V6

Figure 6: Drug Therapy Causes: Type* and Rate



* Pharmaceutical Classification Network of Europe V6

Figure 7: Drug Therapy Interventions: Type* and Rate



* Pharmaceutical Classification Network of Europe V6

Results

Table 2: Patient Satisfaction Survey using the 5-point Likert Scale (n=7)

Question	Overall patient response on each question	Overall feedback
I feel my care is better because the pharmacist uses the video to see me	Agree	POSITIVE
I feel comfortable with my pharmacist visiting me using the video	Agree	
If a pharmacist is not available to see me in person I would rather not use the video to see me	Neutral	
Communicating with the pharmacist with the video is easy	Strongly agree	
I support the use of the video to meet with the pharmacist	Agree	
The video makes it more difficult for me to communicate the way I would like to	Neutral	
I feel the video is annoying	Disagree	
The use of the video for pharmacists to interview patients should be a regular practice	Agree	POSITIVE
I am concerned the pharmacist cannot properly discuss my medications using the video	Neutral	
If the pharmacist is not available to see me in person, using the video is not a caring way to see me	Disagree	

Survey Responses

- 71 % were positive
- 9% undecided
- 20% negative

Table 3: Medication Review Process: Inefficiencies, Barriers and Facilitators

Process	Source
Inefficiencies	1. Electronic medical record (EMR) connectivity issues
	2. Communication delays with prescribers for follow up
	3. OTN connectivity delays/interruptions
Barriers	1. Language
	2. Patient engagement
	3. Patient medication knowledge
Facilitators	1. EMR access
	2. Community Pharmacy software system access (Kroll)
	3. Local nurse presence during interview
	4. Translators

Conclusions

- 50% of patients in these remote communities were eligible for a medication review
- Of those patients in which contact was possible, 71% agreed to an interview
- 61% of patients who were booked, or re-booked, completed an interview
- Majority of study patients and those that had DTP's were middle aged adults
- Average DTP's per patient was 1.78 - most identified DTPs were suboptimal treatment
- Pharmacist interventions took place for 85% of patients
- Overall feedback from patients on their experience with a pharmacist medication review by VC was positive
- Average time to prepare for, and interview patients was 14 and 20 minutes respectively.

Implications

Utilizing VC technology to conduct medication reviews is feasible, acceptable to patients and offers pharmacists an opportunity to address a significant disparity in the provision of healthcare to a large number of patients in remote communities who do not have in-person access to a pharmacist but are otherwise eligible for the Ontario MHLTC MedsCheck Program.

Disclosure Summary

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