

Text Messaging is Associated with Improved Retention in a Clinic-based PrEP Program

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BACKGROUND

- Text messaging and short message service (SMS) interventions are associated with improved medication adherence among HIV-positive individuals
- In clinic-based pre-exposure prophylaxis (PrEP) programs, SMS programs have the potential to improve retention in PrEP care

OBJECTIVE: To describe the population who opted-in to an SMS program and examine the association between enrollment in the SMS program and retention in the PrEP clinic

METHODS

PrEP CLINIC:

- The municipal STD clinic in Seattle, WA provides PrEP to patients at high risk for HIV
- PrEP patients return to the clinic quarterly for clinical follow-up and monitoring
- Patients are considered “dropped” from the clinic (i.e. they cease to receive PrEP from the clinic) if they notify the clinic that they are discontinuing PrEP or if they fail to attend a follow-up appointment and do not respond to a call, text message, or letter

SMS (TEXT MESSAGE) PROGRAM:

- The SMS program (provided by WelTel) was designed to enhance retention to follow-up PrEP clinic appointments and to improve adherence to PrEP
- The SMS program began in September 2015 and includes 3 components:
 - Automated weekly [changed to monthly in August 2016] “check-in” messages
 - Automated appointment reminders (sent 1 week and again 1 day before appointment)
 - Bi-directional open communication via SMS with disease intervention specialists (DIS)
- Patients are offered opt-in enrollment in the SMS program during their initial PrEP evaluation
- Incoming SMS are monitored during clinic hours by two DIS who coordinate the PrEP clinic

DATA ANALYSIS:

- This analysis includes PrEP clinic patients from September 2015 – December 2016
- We defined retention in the PrEP clinic to be any patients who did not “drop” from the clinic
- We compared proportions with chi-square tests and used log binomial regression to estimate the adjusted relative risk (aRR) of the association between enrollment in the SMS program and retention in the PrEP clinic (adjusting for gender, age, and race/ethnicity)

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RESULTS

Computer screen shot examples of SMS conversations between PrEP patients and DIS

Automated Weekly [now Monthly] Check-in Message

Standard message generated automatically by the system

Patients build rapport with DIS

Check-in prompts patient to inquire about medical issue; DIS alerts clinician to contact patient

Automated Appointment Reminders

Patient alerts staff that s/he will be late

Patient requests change in appointment time

Bi-Directional Open Communication with DIS

Patient requests information about insurance

SMS initiated by DIS to patient who was not reachable by voice call

77.5% (251 of 324) of all PrEP patients opted-in to the SMS program, including 79.3% (218 of 275) of those who filled a PrEP prescription

Characteristics of PrEP Patients, by Enrollment in the SMS Program*

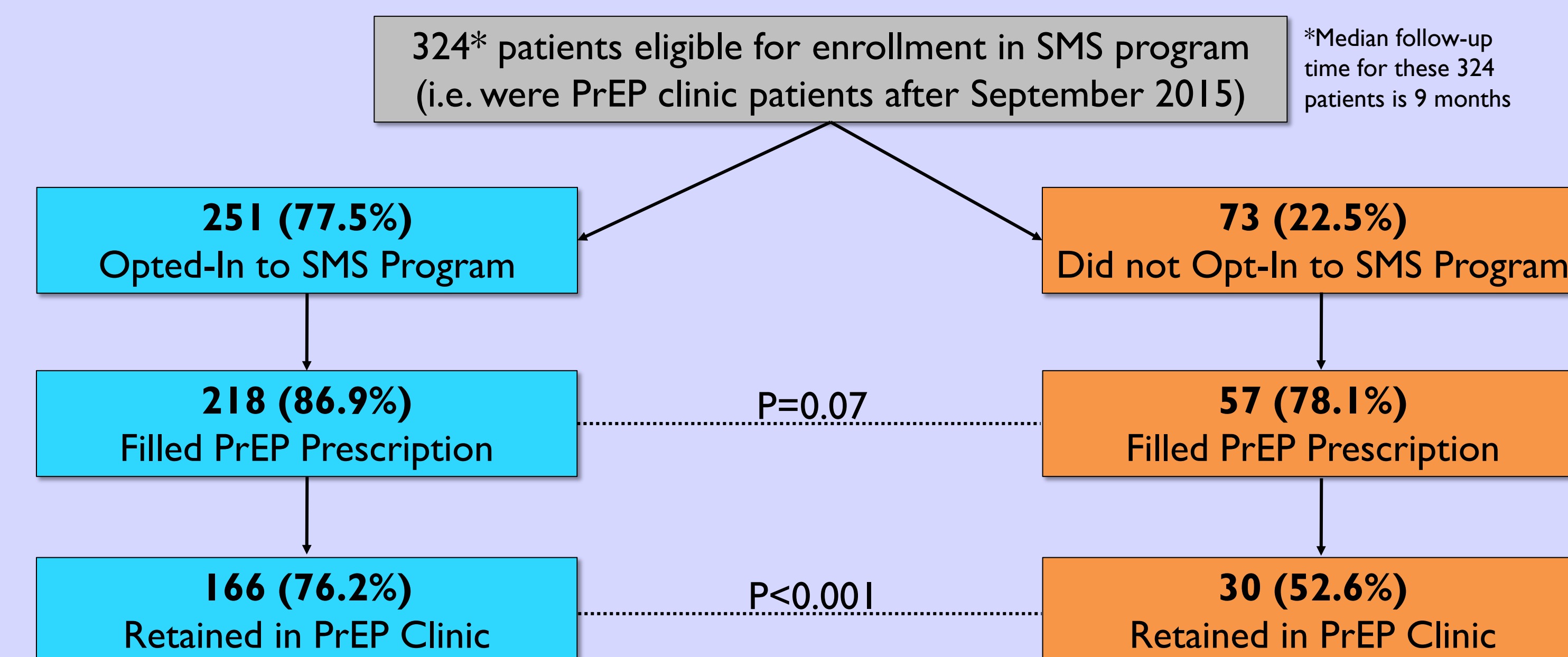
Characteristic	Total (N = 275)	Opted-in to SMS (N = 218)	Did not opt-in to SMS (N = 57)	P-Value
	N (column %)	N (row %)	N (row %)	
Age (years)				
16-24	67 (24)	59 (88)	8 (12)	0.04
25-29	84 (31)	65 (77)	19 (23)	
30-34	60 (22)	41 (68)	19 (32)	
≥35	64 (23)	53 (83)	11 (17)	
Race/ethnicity				
White, non-Hispanic	142 (52)	113 (80)	29 (20)	0.37
Black, non-Hispanic	22 (8)	17 (77)	5 (23)	
Asian**, non-Hispanic	34 (12)	31 (91)	3 (9)	
Other, non-Hispanic	12 (4)	9 (75)	3 (25)	
Hispanic	65 (24)	48 (74)	17 (26)	
Gender				
Men (all are MSM)	263 (96)	211 (80)	52 (20)	0.15
Women	6 (2)	4 (67)	2 (33)	
Transgender	6 (2)	3 (50)	3 (50)	

*Limited to those who filled a PrEP prescription

**Asian includes Pacific Islander and Native Hawaiian

RESULTS

Flow Chart of Enrollment in the SMS Program and Retention in the PrEP Clinic



Patients enrolled in the SMS program were 43% more likely to be retained in the PrEP clinic compared to those who were not enrolled in the SMS program (aRR = 1.43; 95% confidence interval = 1.11–1.84)

DISCUSSION

SUMMARY

- Overall, 77.5% of PrEP patients (79.3% of those who filled a PrEP prescription) opted-in to a clinic SMS program
- Patients aged ≤24 years were more likely to opt-in to the SMS program than those ≥25 (88% vs 76%; P=0.04); there were no significant opt-in differences by race/ethnicity or gender
- PrEP patients who opted-into the SMS program were more likely to remain as patients in the PrEP clinic compared to those who did not opt-in (76.2% vs 52.6%; P<0.001)

LIMITATIONS

- This was not a randomized study (the SMS program is an opt-in program). Thus, those patients that chose to opt-in may have been more likely to remain in the PrEP clinic from the onset

CONCLUSIONS

- Multi-component SMS programs that facilitate communication between patients and clinic staff or DIS can be readily incorporated into clinic-based PrEP programs
- These SMS programs may improve retention of patients in PrEP care