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Derek Simmons

Joanna Jarman-McCabe

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Practice Improvement Proposal: Implementing Clinic Information Pamphlets to Reduce New  
Patient No-Show Rates

Derek Simmons, RN, BSN & Joanna Jarman-McCabe, RN, BSN

University of Portland

## **Practice Improvement Proposal: Implementing Clinic Information Pamphlets to Reduce New Patient No-Show Rates**

Patient no-shows are a problematic occurrence across the country, compromising quality cost-effective healthcare. A community health clinic began a practice improvement project, with their reception staff, aimed at reducing the new patient no-show rate. The project was to mail patient pamphlets with appointment reminders and a \$5 gift card incentive voucher prior to appointments. The number of new patients increased by almost 200% during the 8 week data collection period. The new patient no-show rate did not decrease with the mailing of the pamphlet. However, the reception staff were able to problem solve and improve the implementation process during a mid-project check-in meeting. Clinic receptionists were able to implement practice improvements when given adequate support and control over improving the process.

### **Background and Significance**

The clinic operations manager identified increasing no-show rates as a persistent problem since the clinic began operation. No-show rates were tracked by using the electronic health record scheduling software. In July of 2015, the no-show rate was 17-18%, in September the no-show rate increased to 24-25%.

The high no-show rates were disruptive to patient scheduling and clinic revenue. A minimum of \$250 dollars revenue was lost for every new patient no-show appointment. No-shows created unanticipated gaps in the providers' schedules resulting in providers seeing fewer patients and delays in scheduling new patients for initial visits.

The no-shows for new patient appointments were so disruptive that new patient appointments were decreased from 40 minutes duration to 20 minutes duration. The decreased time made it more challenging for providers to provide a thorough new patient appointment for patients with complex medical needs.

### **Review of Literature on Patient No-Shows**

Patient no-shows are a common problem in all appointment based primary care and specialty settings. Common consequences of patient no-show appointments include lost revenue to clinic and/or provider, disruptions to appointment scheduling, and worse patient outcomes. The rate of patient no-shows varies greatly in the literature and has been cited anywhere from 10% to 50% depending on the setting (Lacy, Paulman, Reuter, & Lovejoy, 2004; Kaplan-Lewis & Percac-Lima, 2013; Neal, Hussain-Gambles, Allgar, Lawlor, & Dempsey, 2005).

Factors contributing to the wide variation in no-show rates include practice settings, ethnicity, insurance status, socioeconomic status, primary care versus specialty care, and immigrant status. Kaplan-Lewis & Percac-Lima (2013) found that in a community health clinic, patients were more likely to demonstrate nonadherence to appointments if they were younger, black, Hispanic, or had Medicaid.

Boyette & Sirois (2011) found that the typical demographic profile of patients with higher no-show rates included younger age, lower socioeconomic status, and a history of failed appointments. Other factors that contributed to higher no-show rates included patients that did not understand the purpose of appointment, longer wait times, and a greater amount of time between scheduling and the appointment date (Boyette & Sirois, 2011).

Patients who no-show are also at a high risk for adverse primary care based health outcomes. Hwang et al. (2015) found in a chart review of 140,947 primary care patients over 5 years that a propensity for no-show appointments was an independent predictor of poor primary care screenings, chronic health management, and high acute care utilization. Patients with a high no-show propensity were statistically more likely to not have completed preventative screenings for colorectal, cervical, and breast cancer. The high nonadherence patient group also had statistically above-goal chronic disease measures including high HbA1c, LDL lipid, and blood pressure. Also had statistically higher rates of hospitalizations and emergency room visits for this.

### **Evidence to Address Practice Need**

A literature search was done using CINHALL, MEDLINE, and Academic Search Premiere databases. Search terms included: “no-show appointment”, “primary care”, “appointment nonadherence”, “appointment reminders”, “postal appointment reminders and primary care”, and “appointment nonadherence and reminders”. The articles were briefly scanned for applicability to the practice improvement project. Articles were disqualified from the literature review for the following: not being applicable, not a study but an implementation guide, and not pertaining to or being able to be generalized to the primary care setting. Ultimately, nine articles were chosen for an in-depth review and innovation appraisal.

The studies were a systemic review, four retrospective reviews, three randomized control trials, and one controlled trial. Some studies researched the innovation of a reminder for no-show appointments. Other studies examined an innovation while collecting descriptive data on the demographics of the no-show patient population.

Overall the characteristics of no-show populations in these studies were younger age, lower socioeconomic status, substance abuse issues, mental health diagnosis, history of previous no-show appointments, wait time at clinic, parking at clinic, transportation challenges to clinic, and living in a socially deprived location (Can, Macfarlane, & O'Brien, 2003; George & Rubin, 2003; Maxwell et al., 2001). Children that were already behind on immunizations were also more likely to miss preventative care appointments (Irigoyen, Findley, Vaughan, Earle, & Stambaugh, 2000). These populations are very similar to the patient population at the clinic site.

Multiple studies supported a phone, text, or postal reminder and few studies compared subtypes of reminders. The receipt of any type of reminder significantly decreased the percentage of no-show appointments (Can et al., 2003; Geraghty, Glynn, Amin, & Kinsella, 2008; Irigoyen et al., 2000; Maxwell et al., 2001; Perron et al., 2010). Postal reminders, with a returned confirmation card, were shown to decrease the likelihood of no-shows compared to basic telephone or postal reminder without confirmation card for return (Can et al., 2003). This implementation project utilized a redeemable \$5 gift card voucher. The voucher served the purpose of a reminder confirmation after completion of an initial new patient appointment at the clinic.

The duration between acute care discharges and follow up appointments was shown to have an impact on return emergency department visits and hospital readmissions (Harrison et al., 2011; McCullumsmith, Clark, Blair, Cropsey, & Shelton, 2015). This was applicable since a source of new patients to the clinic were post hospital discharge follow up appointments for patients who had no established primary care provider. Receiving a reminder three days prior to the appointment showed significant results for effectiveness (Geraghty et al., 2008). As long as

the reminder was received within fourteen days, it was shown to reduce hospital readmissions as well (Harrison et al., 2011). This data supports the timeframe of mailing the pamphlet 7-14 days prior to the scheduled new patient appointment. Overall, the evidence supported the pamphlet innovation as well as the timeframe for mailing and was transferable to the clinic target new patient population.

### **Purpose**

The practice change served three main purposes. The first purpose was serving as an additional appointment reminder with an option to cancel or re-schedule. The second purpose was to provide new patients information regarding services to make it to their appointments. The final purpose was to incentivize patients to attend their appointments by offering a coupon for a gift card.

The practice improvement project was planned with communication and feedback from the practice site. Working closely with the organization and performing an organizational assessment helped to ensure that the project was tailored to the clinic's specific needs (Capella & Nakfoor, 2013). The practice improvement plan for this clinic site was to implement a clinic information pamphlet that incentivized and reminded new patients to attend appointments for establishing care.

### **Project Aims**

The project aims were to ensure that new patients were aware of services offered by the clinic that could assist the patient with getting to their appointment and to reduce the negative effect of new patient no-shows on clinic resources. A major aim of this project was to mail pamphlets to new patients.

### **Method**

Once the project focus was determined, a draft pamphlet was created using the clinic's prior draft as a foundation. The pamphlet was presented at a departmental meeting along with a presentation informing staff of the project, introducing students, and explained the importance of decreasing the new patient no-show rate. Staff were given an opportunity to give feedback on the pamphlet and future state workflow. The clinic translated the pamphlet into a Spanish version. Information on the pamphlet included: clinic letterhead/contact information, types of services offered, insurances and sliding scale fee information, an appointment date and time reminder, and a coupon with a picture of the gift card with instructions to bring the pamphlet to their appointment in order to redeem a \$5 gift card. A scripting suggestion for explaining the pamphlets and what to expect was also distributed. After this meeting, agreed upon documents were sent to staff via email and distributed via hard copy.

Weekly check-ins were completed by the project leads throughout the duration of data collection. Approximately midway a registration staff specific meeting was held to disseminate current data and allow for just in time feedback and solution brainstorming.

### **Results**

Reception staff successfully sent a total of 128 pamphlets to new patients prior to their first appointment out of the 488 total new patients scheduled during this period, which resulted in 25.3% of new patients receiving a new patient pamphlet.

Figure 1 shows the number of pamphlets mailed and total number of new patients scheduled during the data collection period. During the first 4 weeks reception staff successfully sent pamphlets to 30 new patients prior to their first appointment, out of 164 new patients scheduled during this period, for a rate of 18.3% for the first 4 weeks of the project. During the



last 4 weeks of the project, staff successfully sent pamphlets to 98 new patients prior to their first appointment out of 324 new patients scheduled during this period. There was an increase in new patient volume of 197.6% during the last 4 weeks of the data collection period. A total compliance rate of 30.2% was achieved for the last 4 weeks of data collection.

A total of forty \$5 gift cards were redeemed through the pamphlet coupon during the study period. During the first 4 weeks, twelve \$5 gift cards were given and during the last 4 weeks twenty-eight \$5 gift cards were redeemed. Prior to the study gift cards were never given out.

A total of 176 new patients no showed during the 8 week study period out of a total of 488 new patients that were scheduled. The total no-show rate for new patients during the study period was 36.1%.

The completion rate of patient demographic information collected by receptionists was not measurable due to constraints of the clinic's electronic health record system.

### **Discussion**

Completion rates for mailing new patient pamphlets by reception staff improved from the first four weeks compared to the second four weeks. During the weekly check-ins during the first two weeks, reception staff indicated that they had the resources they needed for the project but that it was difficult to remember to complete the process. The project leads aided staff in identifying barriers and developing solutions to the process.

The reasons given by staff for challenges included initially forgetting the mailing because it was new and feeling stressed for time to complete the pamphlets and mail them. During the

second weekly meeting one of the project leads suggested leaving a pamphlet in plain view at the reception workstation computer as a visual reminder. The reception staff agreed that this was a helpful suggestion.

At the end of the fourth week of the project, there was a staff meeting with the receptionists and program manager. Data from the first four weeks of the project was shared with the staff. The project leads expressed positive encouragement towards the 18.3% completion rate for mailing new patient pamphlets and the first 12 gift cards ever redeemed at the clinic. Framing these results as a win helped to energize staff towards continuing to work towards the practice change. The reception staff take turns staying up to an hour after clinic operating hours to finish tasks from the busy clinic day. The staff and manager decided on using time after the clinic's operating hours to focus on completing and mailing new patient pamphlets that did not get completed during the day. The reception staff approved of this idea as a way to address the time constraints.

The reception staff completion rates for the new patient pamphlets increased to 30.2% mailed. The staff were able to improve their completion rate for mailing new patient pamphlets even while scheduling 197.6% more new patients during the second half of the project. This would suggest that receptionist staff had a greater workload but were still able to mail new patient pamphlets and did so at a greater rate, 30.2% versus 18.3%. Staff following the mid-project meeting stated that their strategy of finishing pamphlets at the end of the day took pressure off the process. During the last 4 weeks 28 gift cards were also redeemed and staff reported that patients were excited to receive a gift card after their appointments.

The new patient no-show rate did not appear to decrease during the data collection period. The last measured no-show rate in September of 2015 for the clinic was 24-25%. There was a trend noted by the clinic of an increasing no-show rate. The no-show rate for new patients during the project was 36.1%, despite staff mailing pamphlets. The no-show rate measured by the clinic prior to this project was for all patients established and new. This project was a pilot of limited scope that only addressed new patients. The decision to focus on new patients only for this project was made by the clinic because they felt they no-showed with the highest frequency. The measured no-show rate in this project was for new patients only and cannot be directly compared to the no show rate for all clinic patients. The data collection period was of a short duration, only lasting 8 weeks. It is difficult to make a meaningful evaluation of the pamphlets when only a limited number of new-patients received them for a limited amount of time.

Reception staff expressed that the process for mailing new-patient pamphlets became easier during the second half of the project. The staff were successfully engaged and motivated by the mid-project staff meeting as shown by their higher successful completion rates despite increasing demands. The reception staff expressed a feeling of being setback in regards to completing the new patient pamphlets. Around week 7 of the project there were organizational changes that included the development of a clinic call center. One receptionist's role was to lead this new department and another receptionist was changing clinic locations. A new receptionist was hired and being trained who was not a part of the initial project and one of the receptionists involved in the project left the clinic.

The project was likely impacted as expressed by the reception staff due to these organizational changes. When an organization is in the midst of a significant change it can

create challenges in implementing other practices changes like our project. The addition of a new call center and new reception staff also created opportunities for this practice improvement project.

## References

- Boyette, B., & Sirois, M. (2011). Clinical no-show rates: is technology a contributor? *Divurgent*, 1-10.
- Can, S., Macfarlane, T., & O'Brien, K.D. (2003). The use of postal reminders to reduce non-attendance at an orthodontic clinic: A randomised controlled trial. *British Dental Journal*, 195(4), 199-201. Retrieved from <https://login.ezproxy-eres.up.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=12970701&login.asp?custid=s8474154&site=ehost-live&scope=site>
- Capella, E., & Nakfoor, K. (2013). Evolution of a project: the DNP as project manager. In K.T. Waxman (Ed.), *Financial and business management for the doctor of nursing practice* (pp. 261-280). New York, NY: Springer.
- George, A., & Rubin, G. (2003). Non-attendance in general practice: A systematic review and its implications for access to primary health care. *Family Practice*, 20(2), 178-184. Retrieved from <https://login.ezproxy-eres.up.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=12651793&login.asp?custid=s8474154&site=ehost-live&scope=site>
- Geraghty, M., Glynn, F., Amin, M., & Kinsella, J. (2008). Patient mobile telephone 'text' reminder: A novel way to reduce non-attendance at the ENT out-patient clinic. *The Journal of Laryngology and Otology*, 122(3), 296-298. Retrieved from [https://login.ezproxy-](https://login.ezproxy-eres.up.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=12651793&login.asp?custid=s8474154&site=ehost-live&scope=site)

eres.up.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=17470313&login.asp?custid=s8474154&site=ehost-live&scope=site

Harrison, P. L., Hara, P. A., Pope, J. E., Young, M. C., & Rula, E. Y. (2011). The impact of post discharge telephonic follow-up on hospital readmissions. *Population Health Management, 14*(1), 27-32 6p. doi:10.1089/pop.2009.0076

Hwang, A., Atlas, S., Cronin, P., Ashburner, J. Shah, S., Hong, C. (2015). Appointment “no-shows” are an independent predictor of subsequent quality of care and resource utilization outcomes. *Society of General Internal Medicine, 30*(10), 1426-1433.

Irigoyen, M. M., Findley, S., Vaughan, R., Earle, B., & Stambaugh, K. (2000). Impact of appointment reminders on vaccination coverage at an urban clinic. *Pediatrics, 106*(4), 919. Retrieved from <https://login.ezproxy-eres.up.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=9532333&login.asp?custid=s8474154&site=ehost-live&scope=site>

Kaplan-Lewis, E. & Percac-Lima, S. (2013). No-show to primary care appointments: why patients do not come. *Journal of Primary Care & Community Health, 1-5*.

Lacy N.L., Paulman A., Reuter M.D., & Lovejoy B. (2004). Why we don't come: patient perceptions on no-shows. *Ann Fam Med, 2*(6) 541-545.

Maxwell, S., Maljanian, R., Horowitz, S., Pianka, M. A., Cabrera, Y., & Greene, J. (2001). Effectiveness of reminder systems on appointment adherence rates. *Journal of Health Care for the Poor & Underserved, 12*(4), 504-514 11p. Retrieved from

<https://login.ezproxy-eres.up.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=106920664&login.asp?custid=s8474154&site=ehost-live&scope=site>

McCullumsmith, C., Clark, B., Blair, C., Cropsey, K., & Shelton, R. (2015). Rapid follow-up for patients after psychiatric crisis. *Community Mental Health Journal, 51*(2), 139-144 6p. doi:10.1007/s10597-014-9782-z

Neal, R., Hussain-Gambles, M., Allgar, V., Lawlor, D., & Dempsey, O. (2005). Reasons for and consequences of missed appointments in general practice in the UK: questionnaire survey and prospective review of medical records. *BMC Family Practice, 6*(47), 1-6.

Perron, N. J., Dao, M. D., Kossovsky, M. P., Miserez, V., Chuard, C., Calmy, A., & Gaspoz, J. (2010). Reduction of missed appointments at an urban primary care clinic: A randomised controlled study. *BMC Family Practice, 11*, 79-86. doi:10.1186/1471-2296-11-79

Rosswurm, M. A., & Larrabee, J. H. (1999). A model for change to evidence-based practice. *Image--the Journal of Nursing Scholarship, 31*(4), 317-322. Retrieved from <https://login.ezproxy-eres.up.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=cmedm&AN=10628096&login.asp?custid=s8474154&site=ehost-live&scope=site>

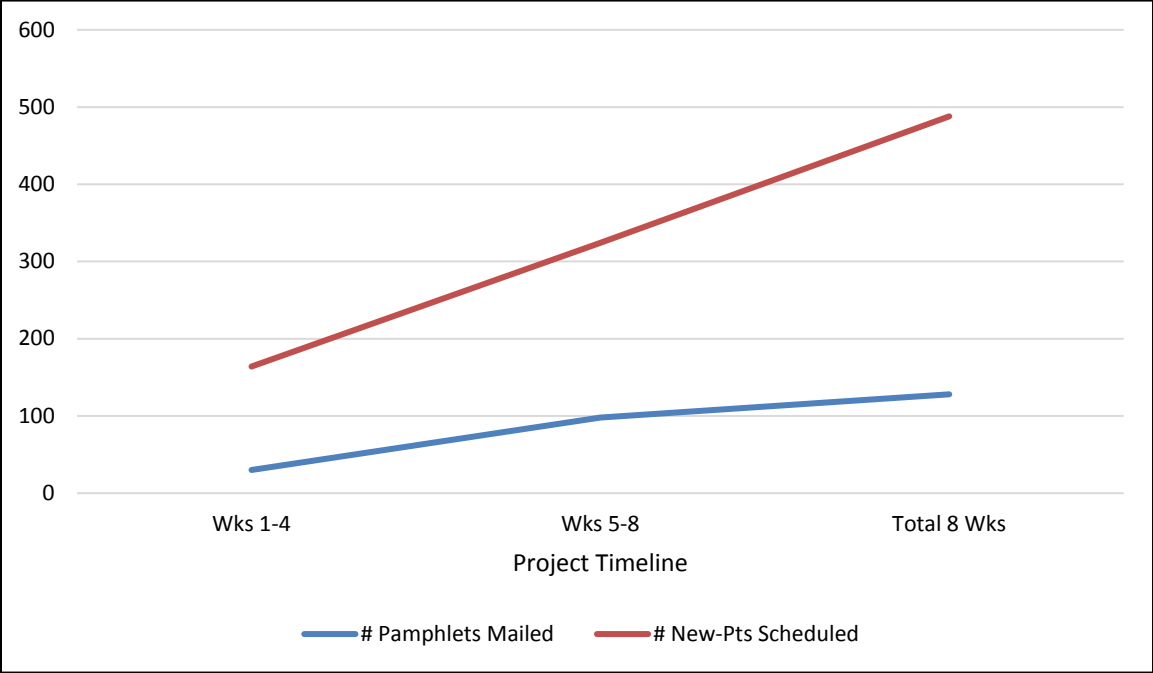


Figure 1. The number of new-patients scheduled and pamphlets mailed during the project data collection period.