Poster

A Comprehensive Survey of Managed Care Organization (MCO) Medication Adherence Intervention Programs

Clifford Jones[1*], BSE; Fawad Piracha[1*], PharmD; Kenny Ng[1*]; Ian Sullivan[1*], BA; Michael Boice[2*], PhD; David Coutts[2*], PhD; Stefanie Mazlish[2*], MBA; Aishwarya Nagarian[1*], PharmD, MBA; Slanix Paul Alex[2*], PharmD; Sudarshan Phani[1*], PhD; Kalee Shah[2*], BS; Aneesh Sheth[2*], PhD; Kamila Sip[2*], PhD; Tracey Van Kempen[2*], PhD; Upal Basu Roy[2*], PhD, MPH

[1]AllazoHealth, New York, NY, United States
[2]The Solution Lab, New York, NY, United States
[*]all authors contributed equally

Corresponding Author:
Fawad Piracha, PharmD
AllazoHealth
483 Broadway, 2nd Floor
New York, NY, 10013
United States
Phone: 1 914 715 1149
Fax: 1 914 740 7671
Email: fawad.piracha@allazohealth.com

Abstract

Background: Medication adherence is defined as the extent to which patients takes their medications as prescribed by their healthcare providers. Medication non-adherence is understood to be a costly and dangerous problem. In the United States alone, non-adherence is estimated to incur US $290 billion in avoidable healthcare expenditures each year. On an individual basis, annual spending for non-adherent patients with hypertension and diabetes is approximately US $4000 greater than for patients who are adherent to their medications. In addition, non-adherent patients suffering from heart failure are hospitalized 2.5 times more frequently than those who adhere to their medication regimens, resulting in a profoundly diminished quality of life, while driving up health care costs. This problem will continue to get worse as more patients will continue to take multiple medications to treat chronic conditions. While medication non-adherence is a serious problem, its origins are complex and not fully elucidated. Some of the more commonly accepted causes include complex treatment regimens, adverse drug reactions, forgetfulness, socioeconomic issues, health literacy, and personal beliefs.

Objective: The purpose of this study is map the current landscape of managed care organization (MCO) medication adherence programs, review the common medication adherence interventions that are used by MCOs, and identify the need for more enhanced intervention targeting such as predictive analytics platforms and other non-predictive methodologies.

Methods: This research survey was conducted in the spring of 2014 and involved 30 MCOs. Each MCO was asked about their current medication adherence intervention programs. Each MCO was represented by an employee who manages medication adherence programs within the organization. Each employee was interviewed during a 10-week long period by virtue of a detailed questionnaire that involved open-ended and multiple-choice questions. Questions addressed information about each MCO's existing medication adherence programs and interventions. Information and insight into the effectiveness of existing interventions, the criteria by which patients are selected for interventions, and the processes by which adherence is measured by each MCO were summarized for this survey. The questionnaire was divided into three basic components: general questions regarding existing medication adherence programs, types of interventions used and their individual effectiveness, and how patients are selected to receive interventions. Respondents also discussed any unique services their programs provide and any future plans of expansion. All data was recorded by 5 interviewers and then reanalyzed by the authors. All 30 MCOs interviewed have medication adherence intervention programs that target their patient population. The MCOs vary in size and coverage demographics. A total of 19 of the organizations are classified as small MCOs (enrollment <200,000), while 11 are classified as large MCOs (enrollment >200,000). The surveyed MCO populations encompass most of the continental United States as well as Puerto Rico. The coverage demographics of these MCOs include commercial, Medicare, and/or Medicaid. Overall, 53% of MCOs cover a commercial

population, 80% cover a Medicare population, and 27% cover a Medicaid population. The highest coverage combinations are commercial and Medicare and Medicare and Medicaid, which account for 23% of the population and 17% of the population, respectively.

Results: Most MCO medication adherence program interventions are directed at patients with chronic cardiovascular disease states (diabetes, hypertension, hyperlipidemia, and heart failure). Cardiovascular diseases are a primary concern for MCOs because of the chronic use of medications/therapies that are associated with the management of such disease states. Furthermore, there is a strong association with medication non-adherence and increased hospitalization rates. Most MCOs use triggers and retrospective adherence measures to select patients for interventions. MCOs seem to follow a rule-based approach (using specific demographic profiles and predefined events to trigger interventions) rather than treating each patient individually. One way to implement a more personalized approach is through predictive analytics. While only 7% of MCOs currently use predictive analytics, over half of the surveyed MCOs plan on incorporating some type of analytics platform. Many are interested in adopting a platform that identifies interventions most likely to engage patients and influence their behavior, avoiding wasteful spending on interventions with patients who will not need them. These enhanced programs are dynamic and self-learning and can rapidly adapt to new intervention techniques. MCOs focus on four intervention channels to improve patient adherence: telephone outreach, direct mail, provider-centric, and face-to-face visits. These interventions are conducted through a combination of in-house and outsourced techniques. MCOs perceive current approaches as only moderately effective because of a failure to intervene before patients are non-adherent and a failure to personalize interventions. This relative ineffectiveness of current interventions has been implicated in previous studies.

Conclusions: The study results suggest that most MCO medication adherence programs target chronic, comorbid cardiovascular disease patients through a system of triggers and retrospective adherence measures. Most MCOs intervene using telephone outreach, direct mail, provider-centric, and face-to-face visits through a combination of in-house and outsourced methods. This approach is seen as only moderately effective as it fails to personalize interventions and intervene before a patient becomes non-adherent. In light of these findings, predictive analytics platforms can play an increasing role in addressing the needs and shortcomings of existing MCO medication adherence programs.
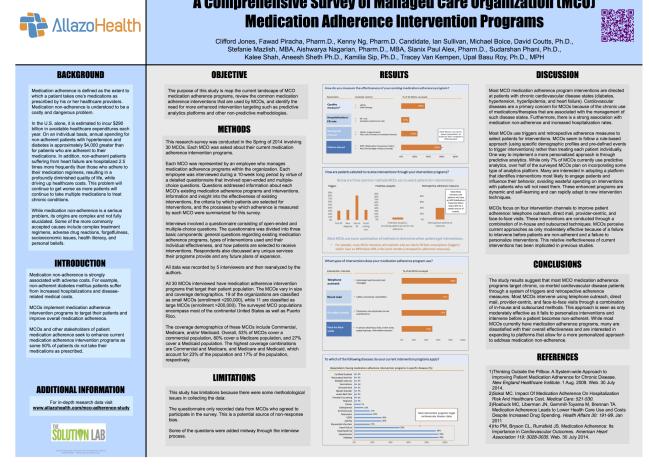
KEYWORDS

This poster was presented at the Connected Health Symposium 2016, October 20-21, Boston, MA, United States. The poster is displayed as an image in Figure 1 and as a PDF in Multimedia Appendix 1.

XSL•FO

RenderX

Figure 1. Poster.

Multimedia Appendix 1

Poster.

[[PDF File (Adobe PDF File), 433KB](#)-[Multimedia Appendix 1](#)]

XSL•FO
RenderX