



**Validation**Institute

# 2021 Validation Report

**Review for: Wildflower Health**

**Validation Achieved: Level 2 - Outcomes**

**Valid through: June 2022**



# Company Profile



---

<b>Category:</b>	Obstetrics
<b>Website:</b>	<a href="http://www.wildflowerhealth.com">www.wildflowerhealth.com</a>
<b>Public or Private:</b>	Private
<b>Year Established:</b>	2012
<b>CEO:</b>	Leah Sparks
<b>Company contact:</b>	info@wildflowerhealth.com

## Description:

**Wildflower** connects women and families to better care by breaking down silos among providers, payer and best-in-class partners. It delivers personalized experiences that simplify the healthcare journey for families with a combination of human touch and digital tools. **Wildflower's** model fuels the transition from fee-for-service to value based care.

**Wildflower** eliminates excess costs, improves patient satisfaction and outcomes across the continuum of family health. Empowering women. Collapsing silos. Rewarding value. This is a smarter way to care.





# Claim Assertion for Validation

---

The **Wildflower** Maternity digital front door offering delivers a consumer-centric experience for expectant mothers through a mobile application that personalizes education and facilitates calls to actions within the provider, payor, and community ecosystems. The app educates users on personalized health issues, reminds them to take certain action steps through tools and trackers, and connects them to local providers through integrated provider appointment portals, and touch-to-call features for provider, payer, and community resources, such as ride services. The goal is to improve maternal care and reduce the cost of pregnancies and deliveries, for both the user and the healthcare system, by:

- Educating users on what's normal and what's not while engaging them early and often through personalized information and consumer-focused design and features
- Identifying risk through clinical content & decision support tools for evolving needs
- Promoting actions that improve outcomes by connecting patients with available resources and personalized interventions, resulting in:
  - promoting early prenatal care;
  - reducing the neonatal intensive care admissions;
  - reducing C-sections;
  - and lowering the frequency of low birthweight babies.

Results of the program were published by Bush et al [1].

---



## Intervention Link to Outcome

- **State the outcome being measured**

Four outcomes were measured: prenatal care starting six or more months before delivery; C-section as percentage of all deliveries; low birth weight babies as a percentage of all live births; and neonatal intensive care unit (NICU) admission as a rate of all deliveries.

- **Detail the intervention**

The intervention is an app that gives pregnant women health and resource information relevant to their pregnancy and upcoming delivery. It provides information about their health benefits (for Medicaid members), as well as provider and community resources for new mothers. The goal is to promote early prenatal care and encourage action that will improve the health of the mother and baby.

- **Does the applicant discuss published literature or other credible source demonstrating correlation between intervention and outcome?**

The applicant provided a peer-reviewed study of the program's results. A systematic review of 245 studies by Chen et al [2] concluded, "More rigorous evaluations are needed to draw consistent conclusions and to analyze mHealth products with multiple functions, especially those popular in the app markets" As this is a new and evolving area of study, there is not a body of literature supporting its effectiveness.



# Method / Calculation / Examples

---

Data was gathered for users (N=85) and non-users (n=5,158) of the app in the Medicaid population. The two groups were analyzed to ensure a similar distribution of ages. Chi Square tests were performed on the association between app use and the four targeted outcomes. Odds ratios, 95th percentile confidence intervals, and p values were also calculated for each.

## Data Source

- **Describe the data source**

The data source was medical claims.

- **Did the applicant have adequate data from a credible, reliable source?**

Yes.

- **How is the data source appropriate for the outcome being measured?**

As the outcomes were all related to use of medical services, medical claims were the best data source.

## Methodology

- **Describe the evaluation methodology**

The analysis compared app users to non-users. Analysis was done to ensure a similar distribution of ages between the two groups; no other matching was performed.





- **Did the applicant collect and manage data in accord with standard evaluation methodology?**

Yes.

## Findings & Validation

See Table 3 below from the Bush et al article [1] for summary of results. The app users were significantly more likely to have started prenatal care six months or more before delivery. The difference between app users and non-users on low birthweight babies was almost significant. For the other outcomes, the difference between users and non-users was not significant.

**Table 3. Chi-Square Tests for Independence Between App Use and Outcomes, by Outcome Measure**

OUTCOME MEASURE	CHI-SQUARE <sup>a</sup>	p <sup>a</sup>	ODDS RATIO <sup>b</sup>
Six-month or more prenatal visit	5.22	0.022	1.76 [1.10, 2.82]
C-section	0.007	0.933	0.99 [0.61, 1.61]
Low birth weight	3.67	0.055	0.25 [0.06, 1.01]
NICU admission	0.014	0.906	0.83 [0.30, 2.29]

<sup>a</sup>Reported Chi-square values and p-values reflect Yates' correction for continuity.

<sup>b</sup>Odds ratios include a point estimate and a 95% confidence interval.





## Works Cited

---

1. Bush et al, Impact of a Mobile Health Application on User Engagement and Pregnancy Outcomes Among Wyoming Medicaid Members, *Journal of Telemedicine and E-Health*, 2017 Nov 1; 23(11): 891–898
2. Chen et al, Effectiveness and Appropriateness of mHealth Interventions for Maternal and Child Health: Systematic Review, *Journal of Medical Internet Research Mhealth Uhealth*. 2018 Jan; 6(1): e7.





# Limitations

---

As the program was voluntary, self-selection by participants may have colored the results. Random assignment to the program or matching the participants to a control group might show different outcomes.





# Validation and Credibility Guarantee

---

**Wildflower Health** achieved level 2 validation for Outcomes. Validation Institute is willing to provide up to a \$25,000 guarantee as part of their Credibility Guarantee Program. To learn more, visit <https://validationinstitute.com/credibility-guarantee/>.

## Level 1 – Savings

Can reduce health care spending per case/participant or for the plan/purchaser overall.

## Level 2 – Outcomes

Product/solution has measurably moved the needle on an outcome (risk, hba1c, events, employee retention, etc.) of importance.

## Level 3 – Metrics

Credible sources and valid assumptions create a reasonable estimate of a program's impact.

## Level 4 - Contractual Integrity

No outcomes or savings has been shown, but vendor is willing to put a part of their fees "at risk" as a guarantee.





**Validation Expiration: June 2022**

# CERTIFICATE OF VALIDATION

---

**Applicant:**

**Wildflower Health**

220 Halleck St., Ste. G100

San Francisco, California, 94129

**Product:**

Digital Platform

**Claim:**

Improve maternal care and reduce the cost of pregnancies and deliveries, for both the user and the healthcare system.

**Validation Achieved:**

**Level 2 - Validated for Outcomes**

---

**Linda Riddell**

**VP, Population Health Scientist**

**Validation Institute**

---

**Benny DiCecca**

**Chief Executive Officer**

**Validation Institute**





# About Validation Institute

---

**Validation Institute** is a professional community that advocates for organizations and approaches that deliver better health value - stronger health outcomes at lower cost. We connect, train, and certify health care purchasers, and we validate and connect providers delivering superior results. Founded in 2014, the mission of the organization has consistently been to help provide transparency to buyers of health care.

