

# EFFECTIVENESS OF AI-ENABLED DIGITAL PRECISION CARE AND REMOTE MONITORING IN IMPROVING GLYCEMIC AND CARDIOMETABOLIC PARAMETERS IN TYPE 2 DIABETES PATIENTS

Medication Changes (n= 149)

Dr KN Manohar<sup>1</sup>; Credo Health Services Private Ltd, Bangalore

# Background

In India, the average HbA1c in adults in Type 2 Diabetes Mellitus (T2DM) is 8.9+2.1%<sup>1</sup>. The prevalence of T2DM is 74.2 million in India, which is a major challenge in health care sector<sup>2</sup>

Barriers includes insufficient knowledge on self-management, medication adherence, mental well-being, nutrition, physical activity and personalised management<sup>3</sup>

Studies have suggested remote monitoring using technology that bridges the gap between the patient and healthcare professionals. Results have shown better HbA1c control at lower cost with diabetes remission<sup>4</sup>

Diabetes remission refers to a state where blood glucose levels return to normal ranges without the need for ongoing medication or insulin therapy<sup>5</sup>

Achieving diabetes remission is more commonly associated with lifestyle changes, such as weight loss, healthy eating, regular physical activity, and sometimes medication adjustments<sup>6</sup>

# Objective

To evaluate the use of Credo Health's Al-enabled technology in a real-world setting along with personalized precision care for people with T2DM.

# Methodology

People with Type 2 Diabetes were referred by the treating physician to the Credo Health Diabetes Remission program.

Care team is assigned when the member gets enrolled in the program

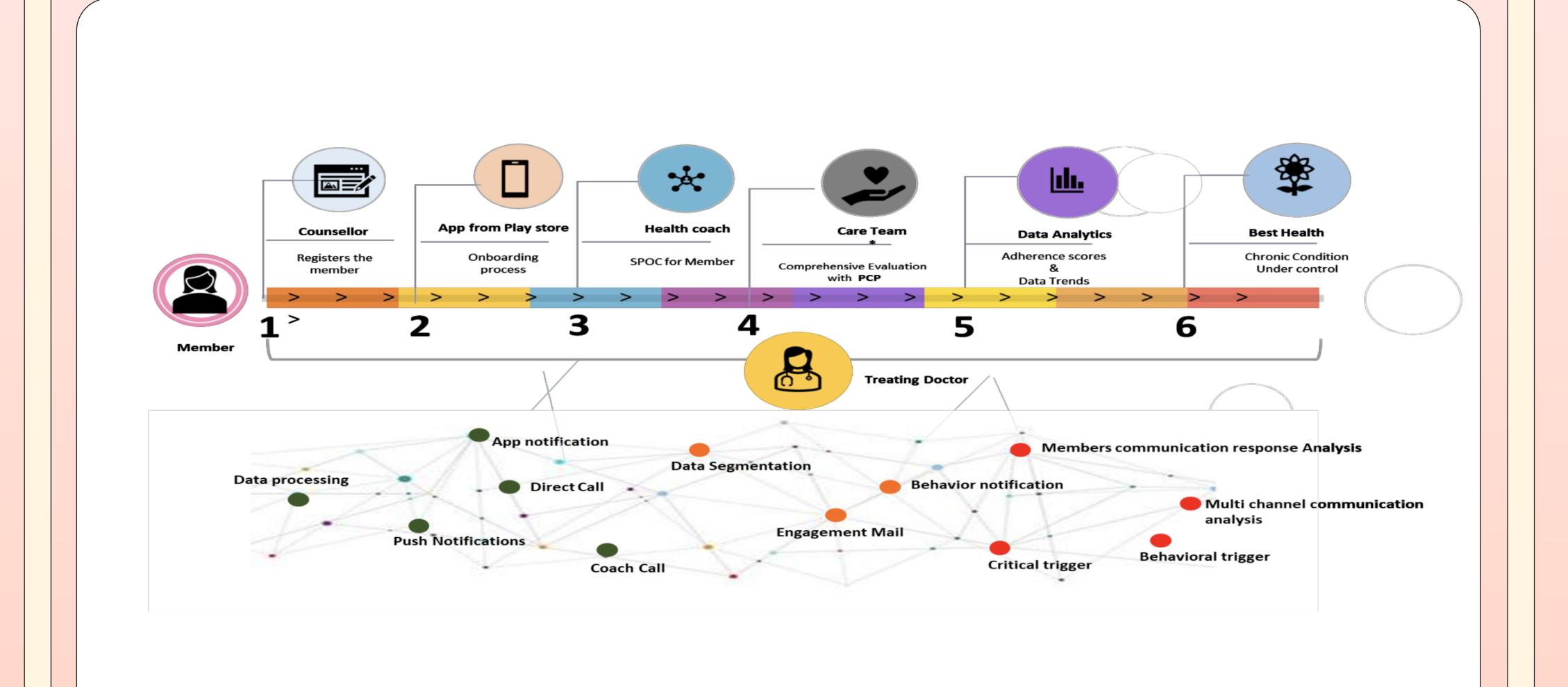
Precision care plan was provided using AI enabled technology setting personalized goals for nutrition, fitness and lifestyle modification through mobile application.

Care Team consisting of health coach, care manager, nutritionist, fitness expert, pharmacologist and medical officer remotely monitored the patient's progress.

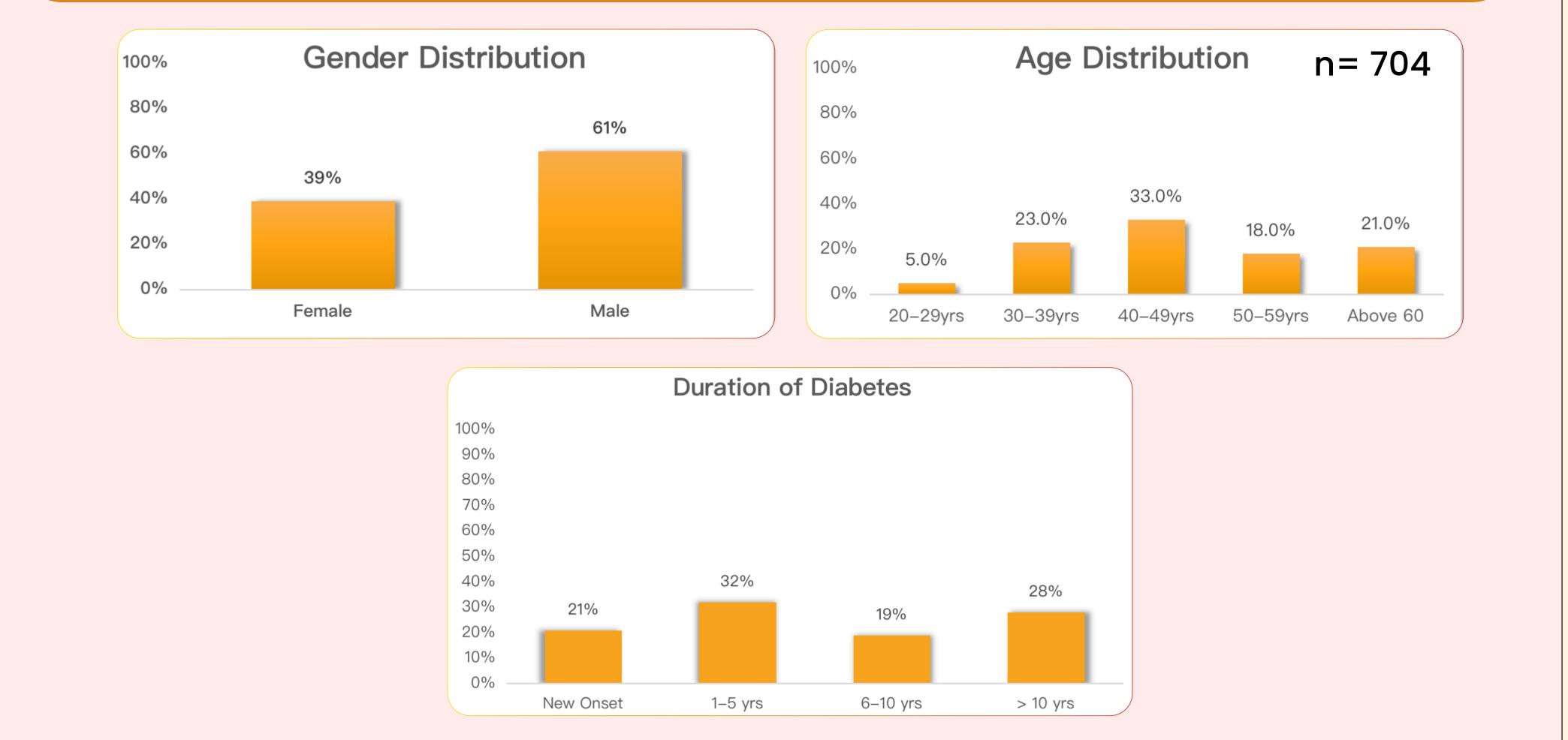
Treating physician gets a real-time update on the patient's progress.

The data of 704 members with type 2 diabetes members who enrolled for the diabetes management programme for 3 months at Credo Health was analysed.

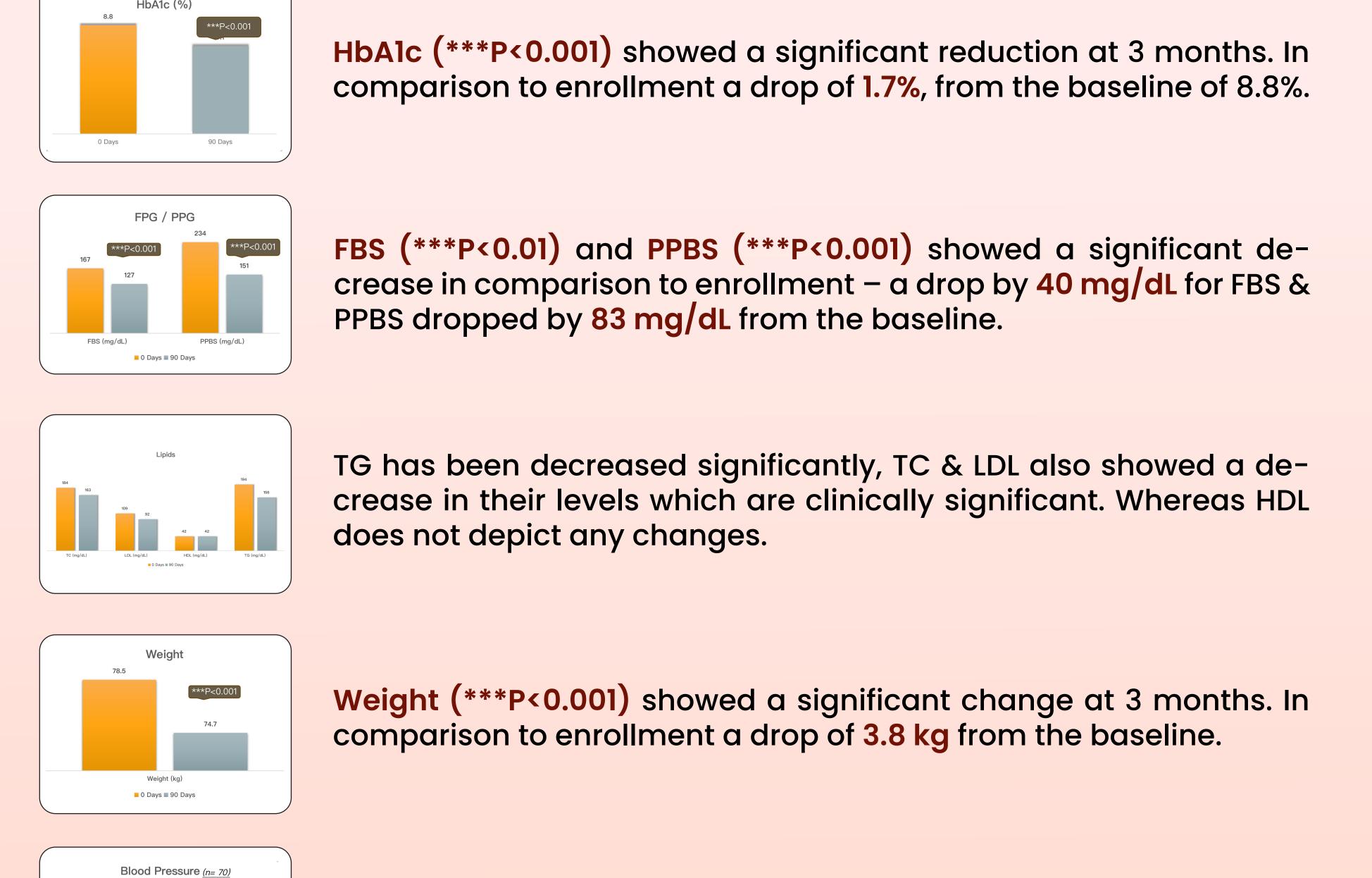
Informed consent was sought from the all the individuals and statistics was applied using SPSS 25.



## Baseline Characteristics



#### Results



Systole (\*\*\*P<0.001) and diastole (\*\*\*P<0.001) showed significant differences in comparison to enrollment with a drop of 10 mm of Ha and 4 mm of Hg respectively.

Insulin was completely withdrawn for 53% and the dose was reduced for 30% of the patients as 17% of patients continued with the same insulin dose.67% of patients had to continue the same dose of oral anti-diabetic agents, for 5% of patients, medication was withdrawn completely, 25% could reduce the medication dose however 3% of patients had to increase their medication dose.

## Discussion

- Credo Precision Care uses Al enabled technology to bridge the gap between treating physician and the patients through precision nutrition, personalized exercise regimes and lifestyle changes.
- 2. Significant reduction in glycosylated haemoglobin and fasting plasma glucose was achieved by the end of 12 weeks.
- 3. Significant reduction in systolic blood pressure and lipids was achieved by end of 12 weeks
- 4. Significant reduction in medications was achieved, Insulin by 36% and OADs by 50% by end of 12 weeks.
- 5. Cost effectiveness was achieved at 12 weeks with OADs cost reduced by 21% and insulin by 68%

### Conclusion

Al-enabled personalized precision diabetes care with integrated remote monitoring improved glycaemic and cardiometabolic outcomes in 3 months.

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