

Background



- Worldwide increase in the number of people with type 2 diabetes mellitus (T2DM)¹.
- Non-adherence is common. Between 10 to 56% of people with T2DM are non-adherent to prescribed medication regimen².

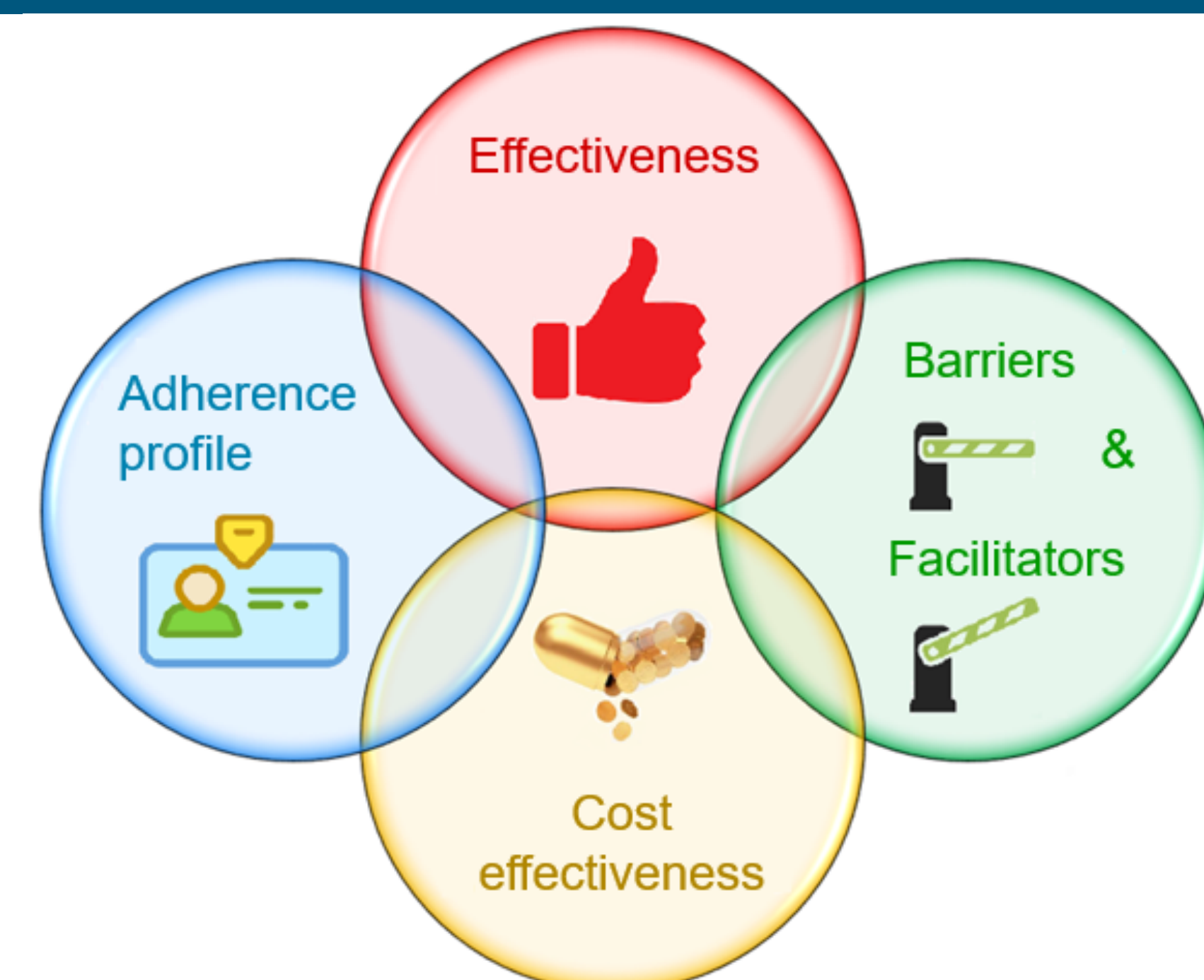


- Medication non-adherence is associated with increased healthcare costs^{3,4}.
- Interventions developed to enhance adherence rarely allow for significant tailoring to individual needs.

Aim & objectives

To investigate the effectiveness and cost effectiveness of a personalised intervention to improve medication adherence in people who are non-adherent to oral antidiabetic and/or antihypertensive medicines.

- To identify non-adherence profiles based on individual factors, barriers, needs and preferences.
- To identify the barriers and facilitators of intervention delivery and receipt.



Method



- This is a 1:1 randomized controlled trial (RCT) (n=300), n=150 each in the Netherlands and England for 6 months duration.



- Study adapted through work with patient and public involvement (PPI) group and relevant stakeholders.

Eligible patients



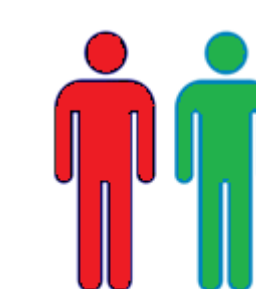
- Smartphone users
- 35-75 years old
- Have T2DM
- Non-adherent to prescribed medicines

Participant ID and recruitment



Potentially eligible participants ID by GP practices and recruited by community pharmacies

Treatment of participants



Control arm: receive usual care & access a general DM website.
Intervention arm: receive personalised supporting programs, e.g. text messages

Measures



3 questionnaires to be sent at baseline, 3 & 6 months, & telephone pill counts, BP & HbA1c check conducted at baseline & at 6 months.
Outcomes: change in: medication adherence, BP, HbA1c, quality of life, diabetes treatment satisfaction & health care costs

Results

- Three medical practices and their related community pharmacies have expressed interest in the study.
- Two meetings with PPI members were conducted, and patient-facing supporting programs were adapted (Fig. 1).
- Participant recruitment is expected to start in July 2020.

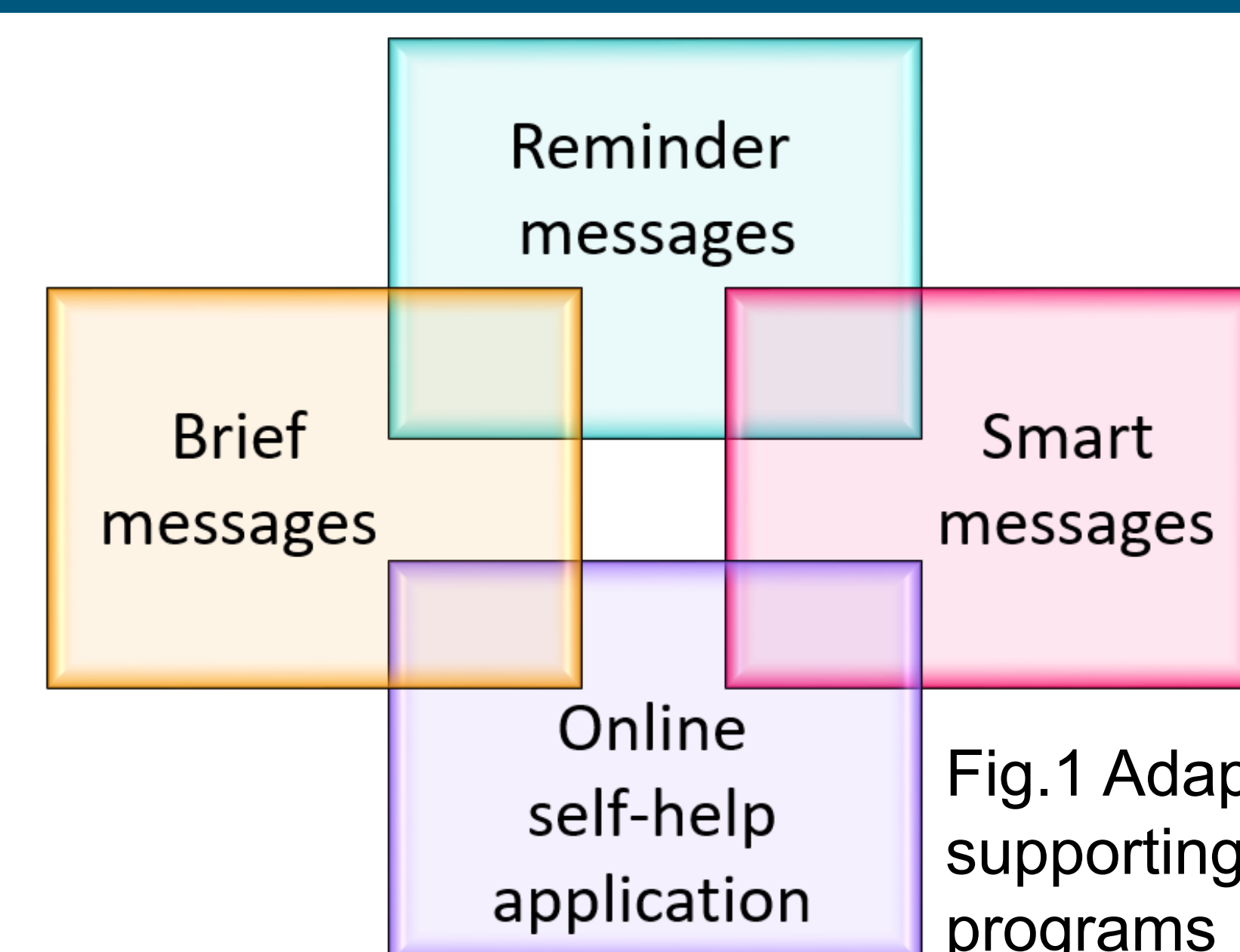


Fig.1 Adapted supporting programs

Conclusion

The study is expected to demonstrate the impact of a personalised adherence intervention on diabetes-related health, quality of life and healthcare costs.

References

- International Diabetes Federation. IDF Diabetes Atlas 2017, 8th edition, 2017.
- Iglay K et al. Meta-analysis of studies examining medication adherence, persistence, and discontinuation of oral antihyperglycemic agents in type 2 diabetes. *Curr Med Res Opin* 2015; **31**(7): 1283-96.
- Dragomir A, Cote R, Roy L, et al. Impact of adherence to antihypertensive agents on clinical outcomes and hospitalization costs. *Med Care* 2010; **48**(5): 418-25.
- Faught RE, Weiner JR, Guerin A, Cunningham MC, Duh MS. Impact of nonadherence to antiepileptic drugs on health care utilization and costs: findings from the RANSOM study. *Epilepsia* 2009; **50**(3): 501-9