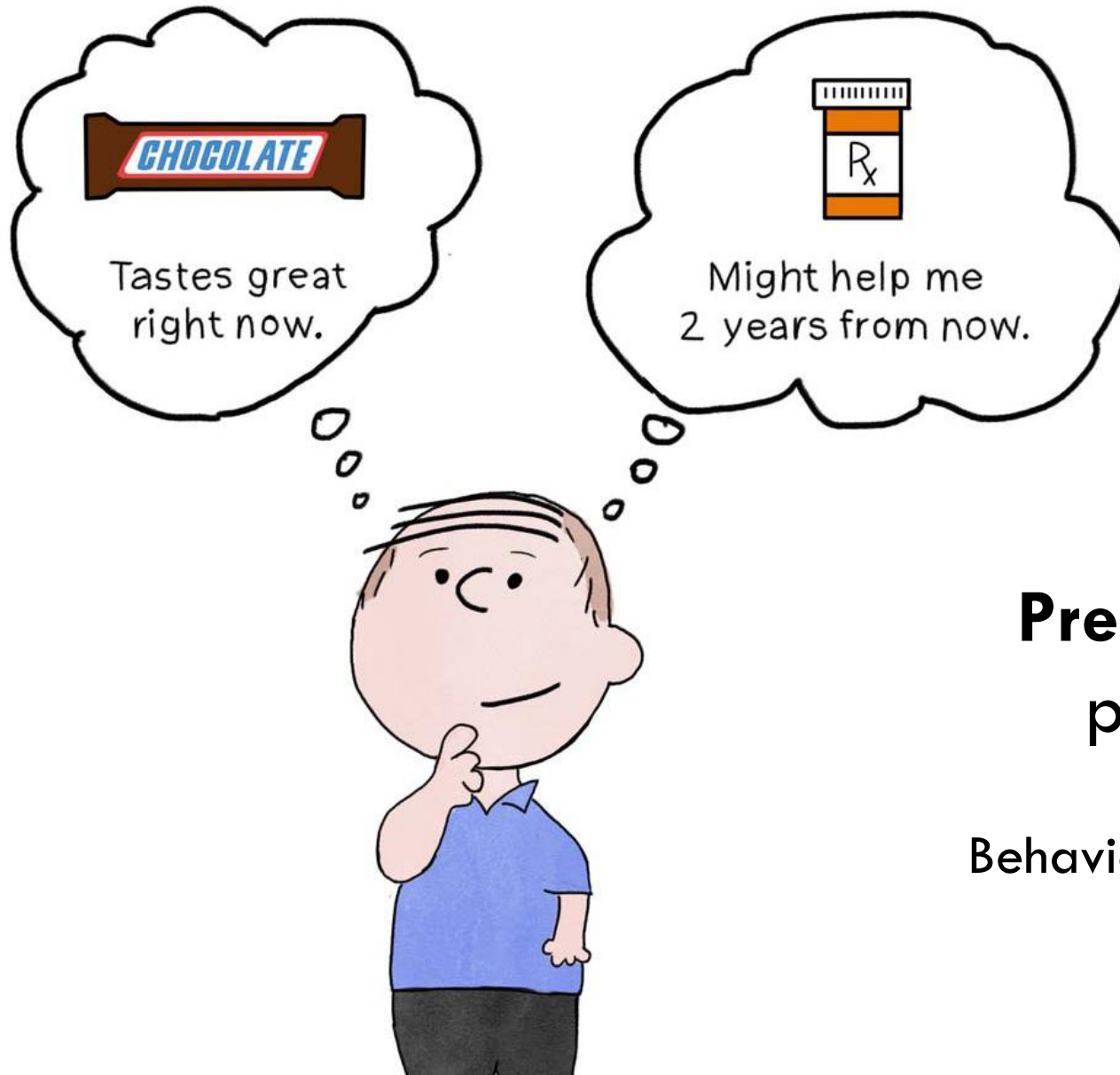


Better adherence in trials with
behavioral economics + artificial intelligence

 wellth

Why do participants become non-adherent?



Present Bias is the reason why patients are not adherent.

Behavior is motivated by instant gratification.

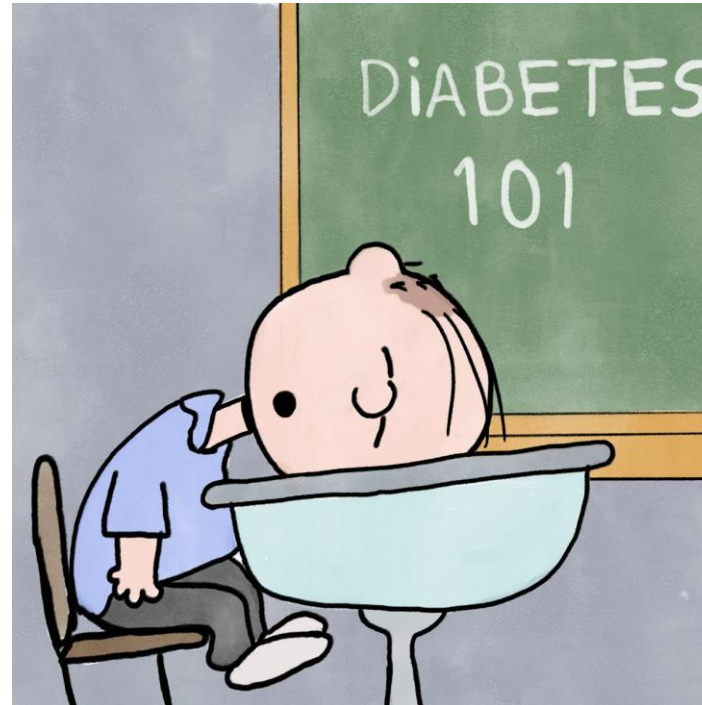
Previous solutions don't provide the instant gratification necessary to overcome **Present Bias**.

Reminders



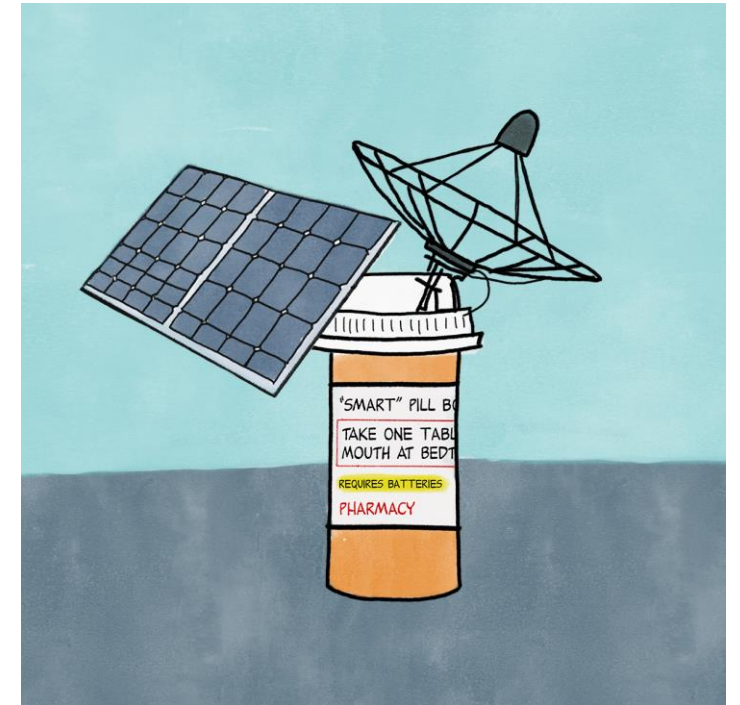
Reminders just become a nuisance over time

Education



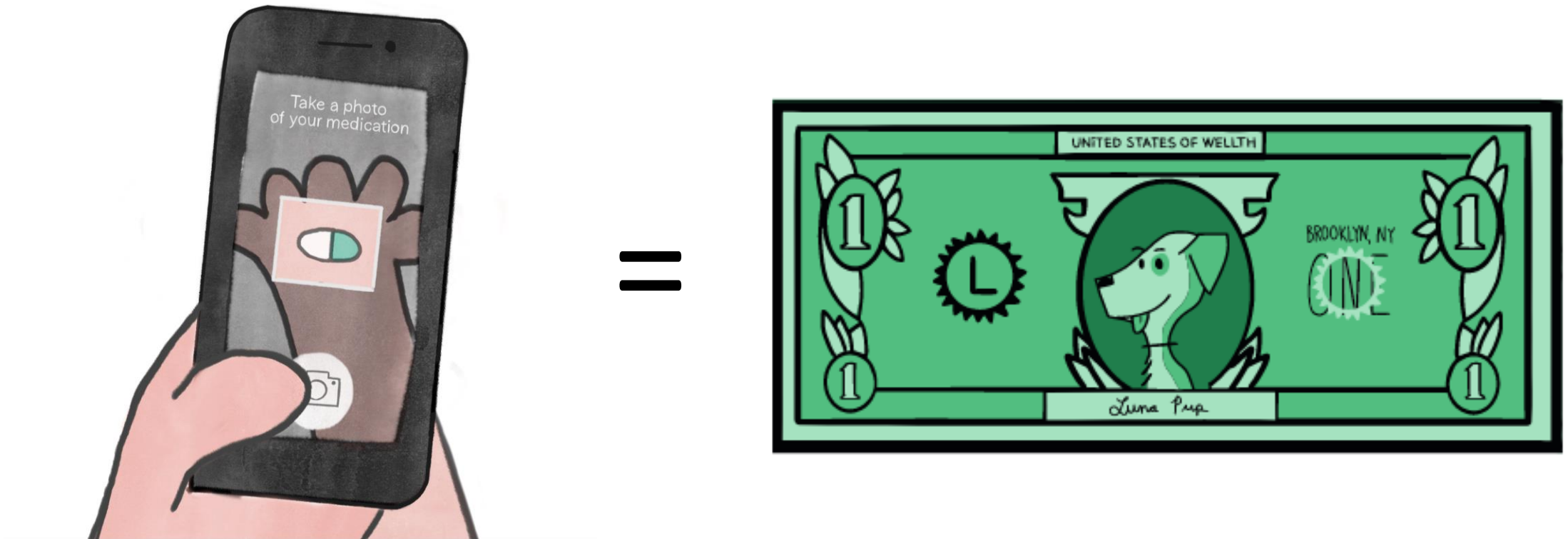
Patients already know they should take their meds.

Connected devices



Devices measure adherence but do not improve it.

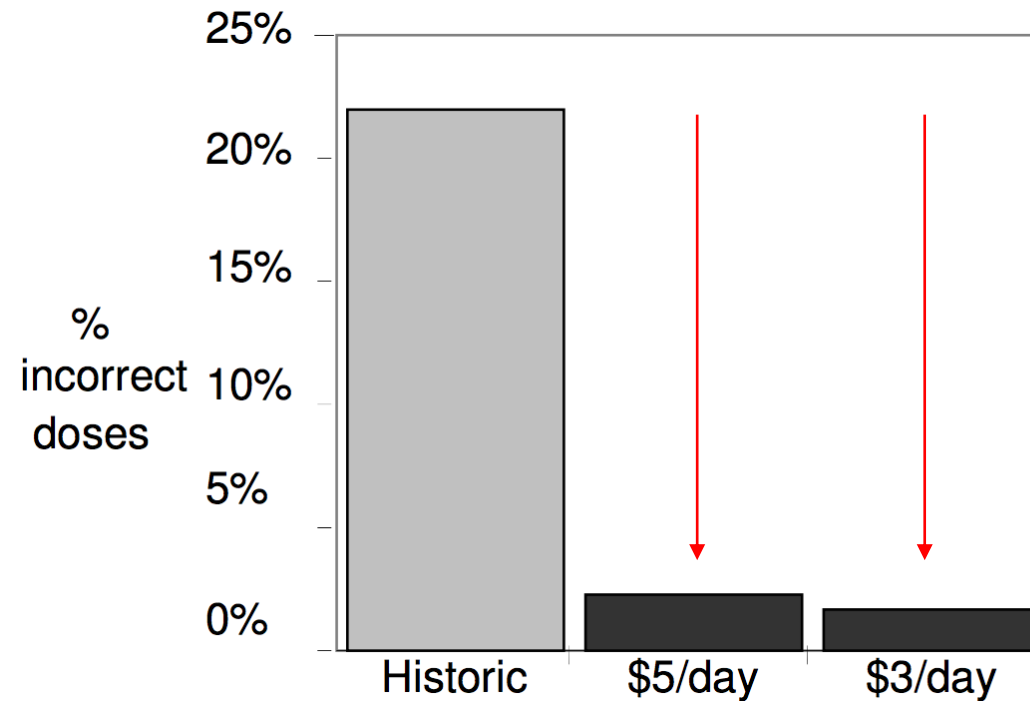
Paying patients when they take their pills
does overcome **Present Bias**.



This is proven by Behavioral Economic studies and Wellth pilots.

INCENTIVES IMPROVE MED ADHERENCE

1) Financial incentives have been shown to produce drastically better medication adherence



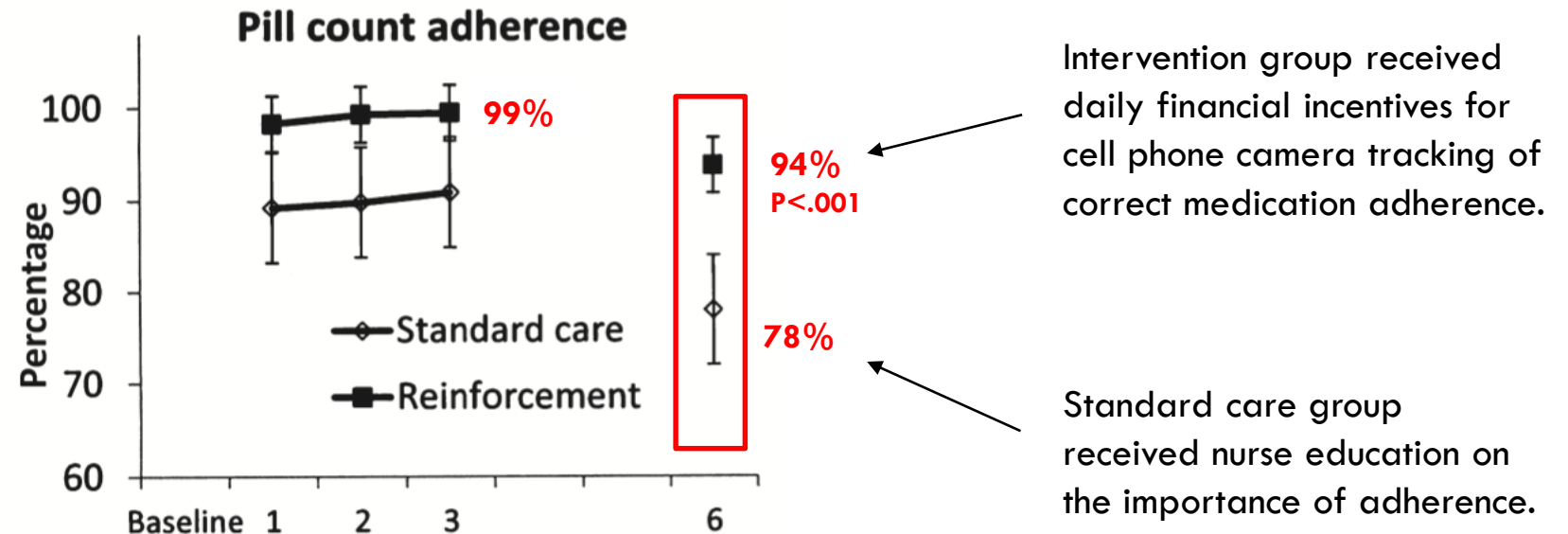
Both intervention groups showed a ~10x reduction to warfarin nonadherence

Kimmel et al produced a 10x reduction to warfarin nonadherence with lottery incentives

MED ADHERENCE LASTS AFTER INCENTIVE GOES AWAY

2) Incentives produce lasting improvement to medication adherence after incentive ends

This is a very similar intervention to the Wellth program.

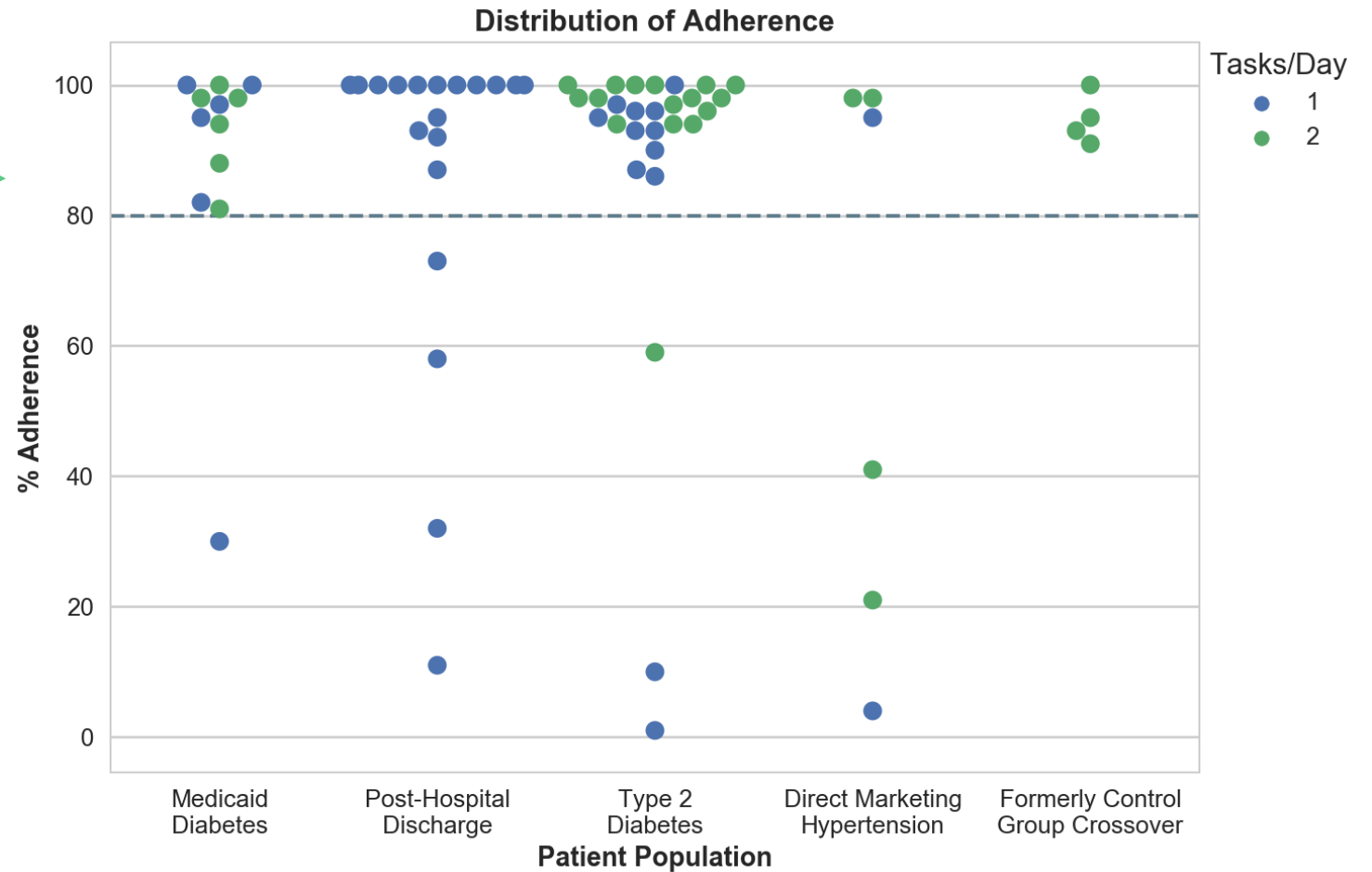


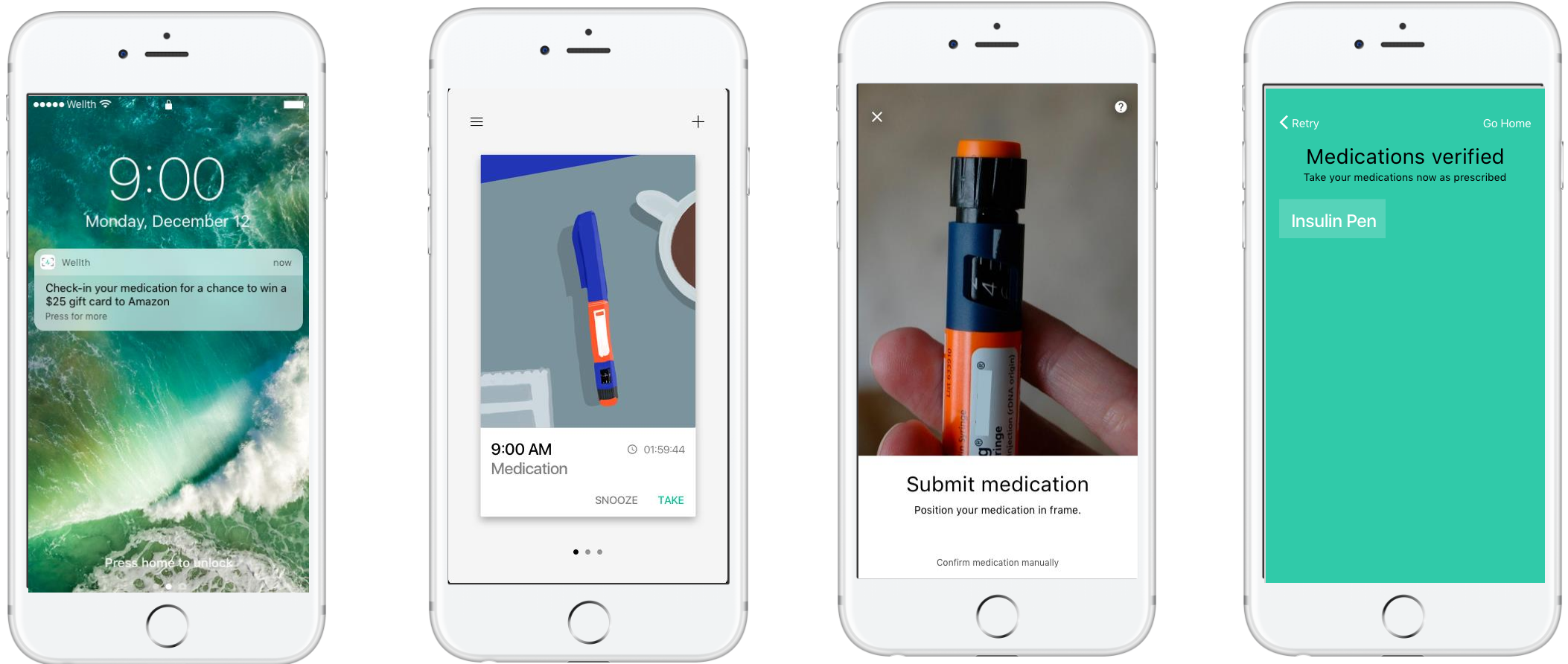
Petry et al. showed significantly better antihypertensive adherence with incentives and cell phone camera verified adherence, the effect persisted at 6 month follow-up after incentive had gone away (94% adherence vs. 78%).

Wellth is able to drive greater than 80% adherence

84%

Of all patients on our current app are
>80% adherent





Our Artificial Intelligence can verify compliance with any pill,
injectable, or inhaler administered drug

TARGETED NUDGES

Wellth becomes a direct channel to send smart nudges to patients to encourage adherence and trial journaling



WELLTH

now

You are due for a follow up appointment next week. Make sure to return to the trial site!



WELLTH

now

Don't forget to make a note in your trial journal today.



WELLTH

now

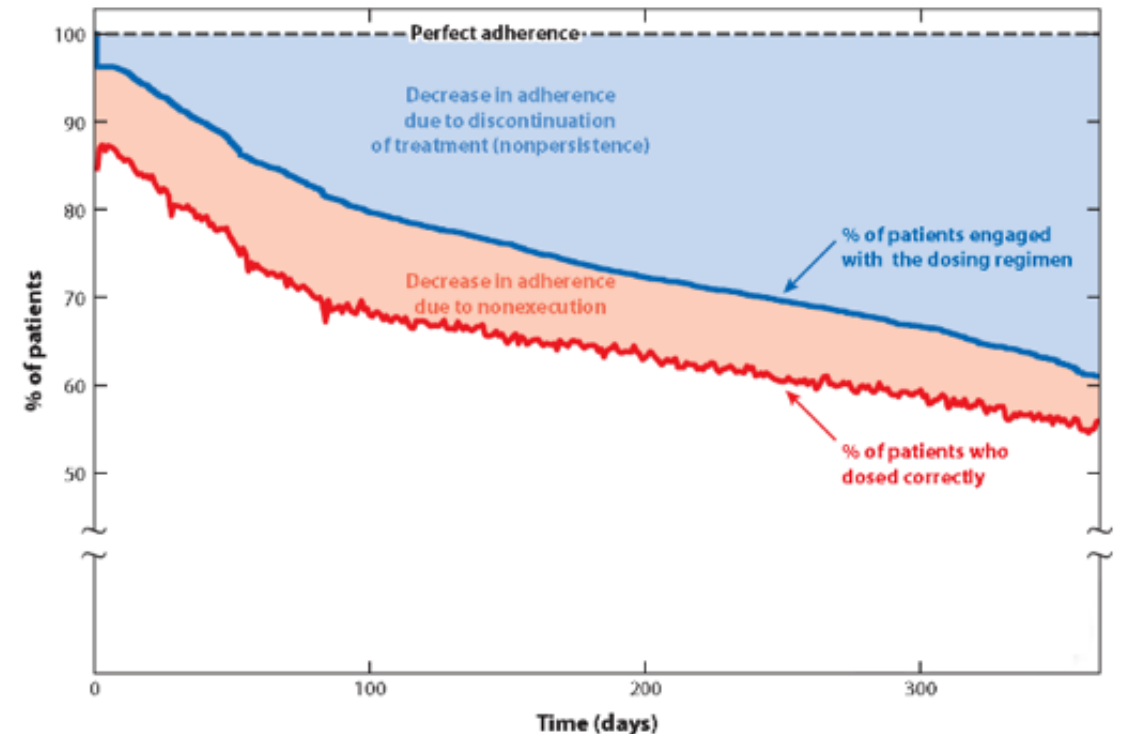
Hey James, we noticed you stopped taking your medication. Is there something wrong?

40% of trial participants become non-adherent in first 150 days¹

Impact of non-adherence on your trial:

- Worse clinical outcomes for your participants
- Trial takes longer to complete
- More participants must be recruited
- Significantly higher cost of trial
- Opportunity cost of delay in going to market

Figure 1: IMP nonadherence in Clinical Trials* [7]



*16,907 participants derived from 95 clinical studies ranging from 30 to 1,400 days

1. <http://www.appliedclinicaltrials.com/non-adherence-direct-influence-clinical-trial-duration-and-cost>

There is huge cost-reduction by improving adherence

Trial Phase	Estimated Cost Savings Per 1% Improvement in Adherence ¹
Phase I	\$19,036
Phase II	\$50,904
Phase III	\$335,725

Wellth uses proven strategies from Behavioral Economics to improve adherence.

1. <http://www.appliedclinicaltrials.com/non-adherence-direct-influence-clinical-trial-duration-and-cost>