USING MOBILE TECHNOLOGY TO ADDRESS THE OBESITY EPIDEMIC

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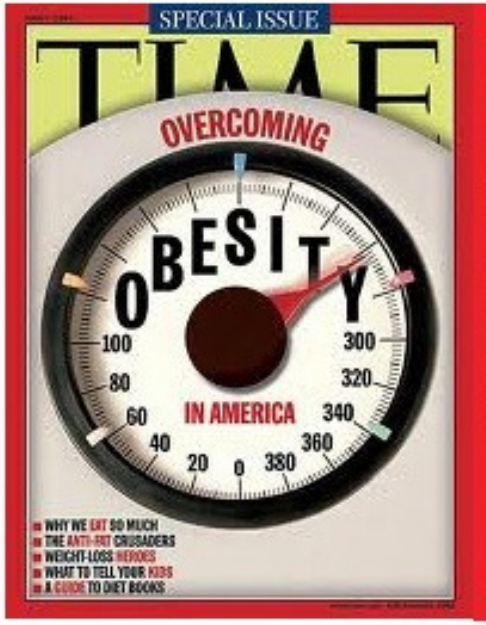
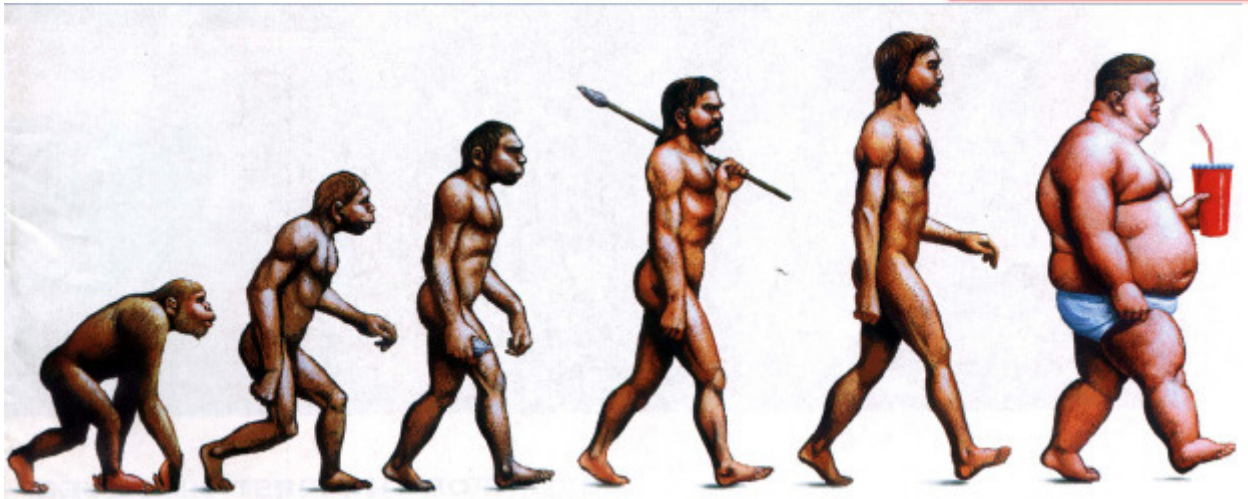

SPECIAL ISSUE
TIME
OVERCOMING
OBESITY
IN AMERICA
WHY WE EAT SO MUCH
THE ANTI-FAT CRUSADERS
WEIGHT-LOSS HEROES
WHAT TO TELL YOUR KIDS
A GUIDE TO DIET BOOKS

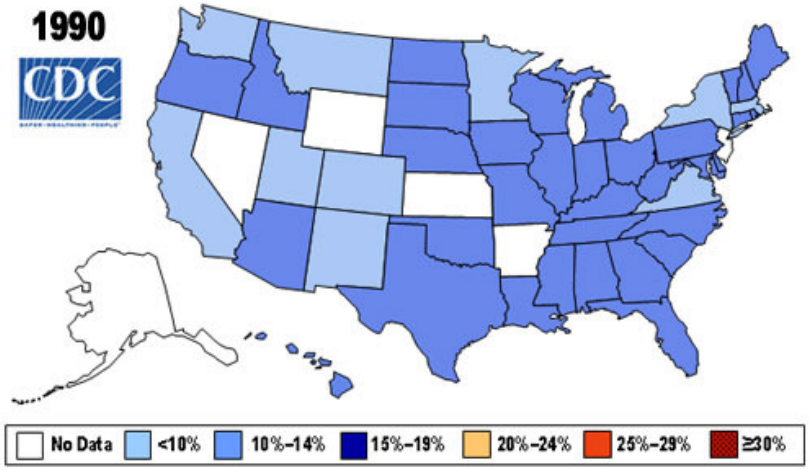
TIME
SPECIAL HEALTH ISSUE
Our Super-Sized Kids

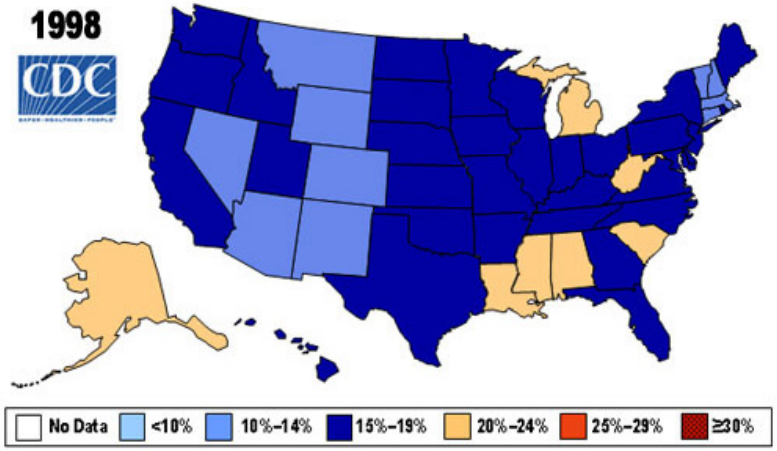
TIME
The Obesity Epidemic in America

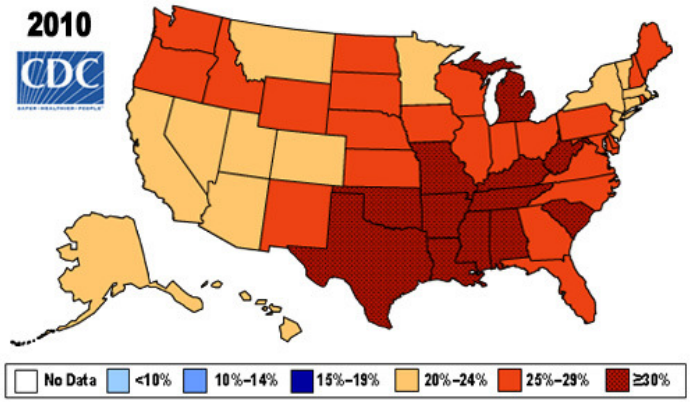


Newsweek
When I Grow Up, I'm Going to Weigh 300 Lbs. Help!

Percent of Obese Adults (BMI ≥ 30) in U.S.







OBESITY AND HEALTH RISKS

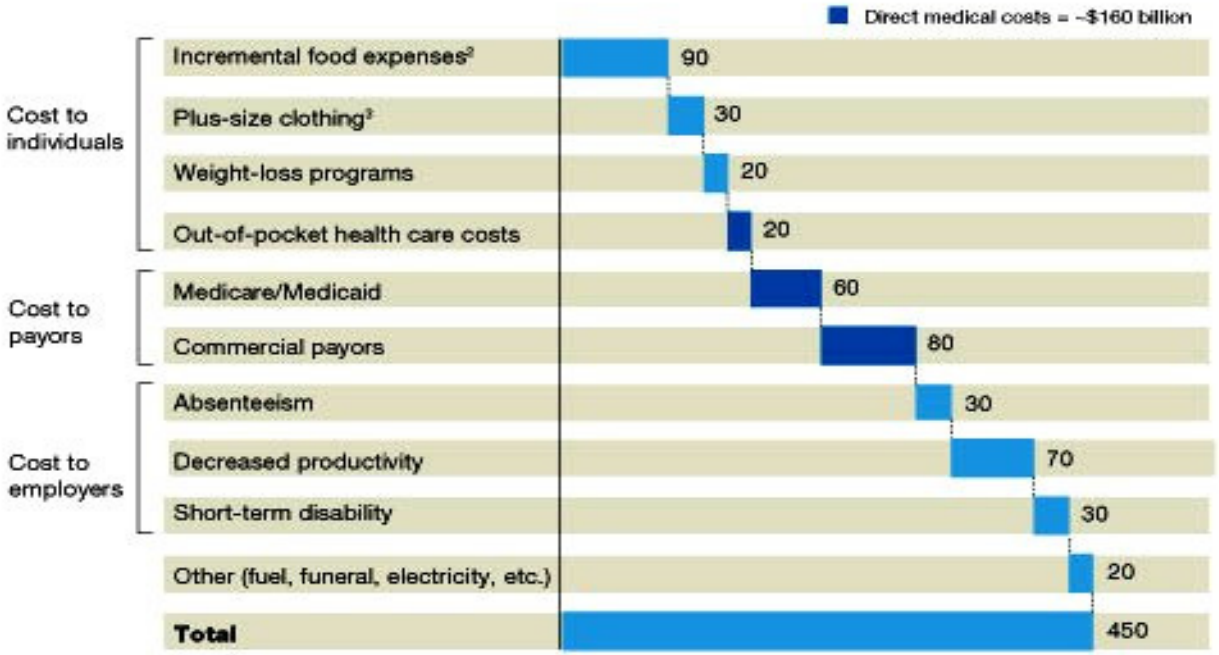
- Breast, colon, prostate cancer
- Cardiovascular disease (heart attacks, strokes)
- Type II diabetes
- Osteoporosis
- All-cause mortality

American Heart Association.
Learn and Live.

American Cancer Society®

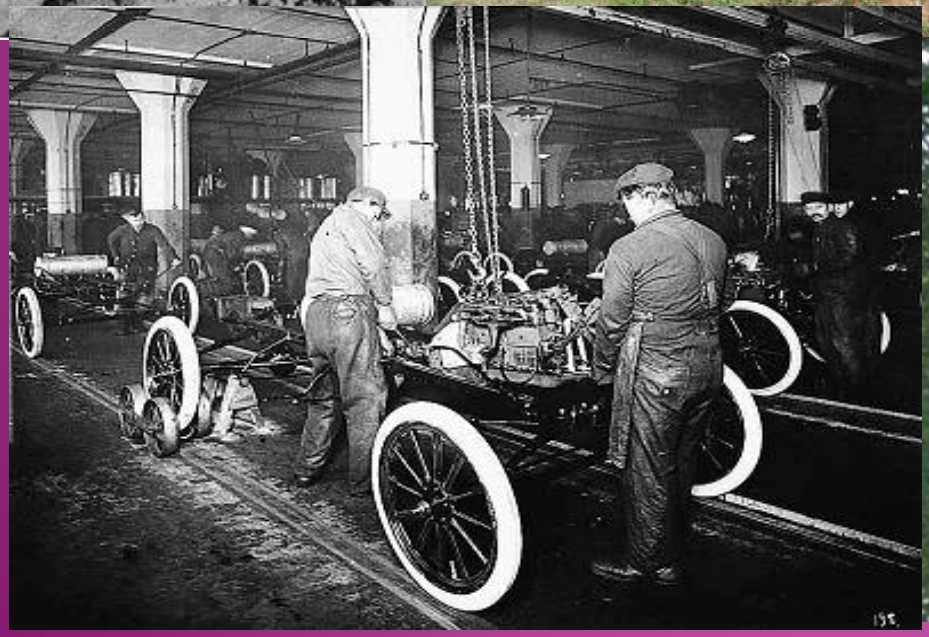
COSTS OF OBESITY

Estimated increased spending associated with obesity in the United States[1]
$ billion

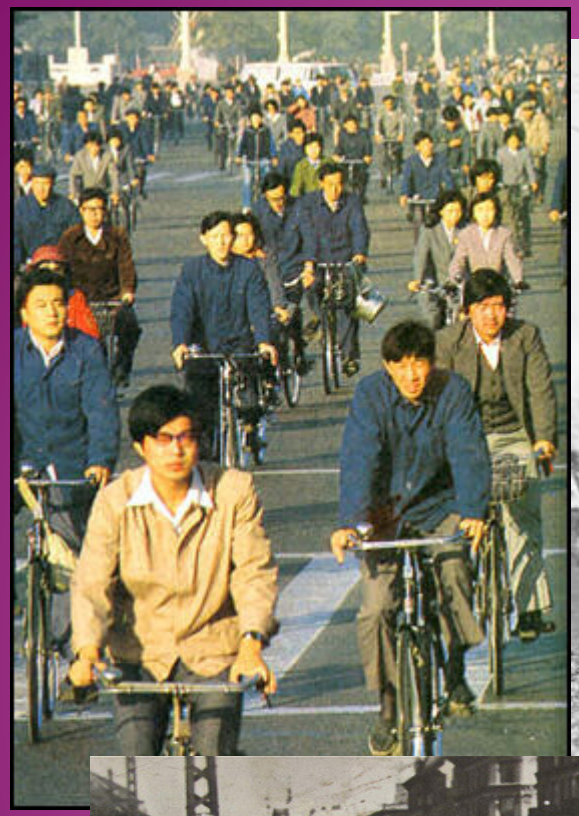


[1]Rounded estimates.
[2]Based on estimated cost of incremental calorie intake to maintain obese weight.
[3]Based on incremental costs of plus-size clothing.

Source: McKinsey analysis; Centers for Disease Control and Prevention; 2006 National Health Expenditure Accounts; Euromonitor



DESK JOBS



MOTORIZED TRANSIT

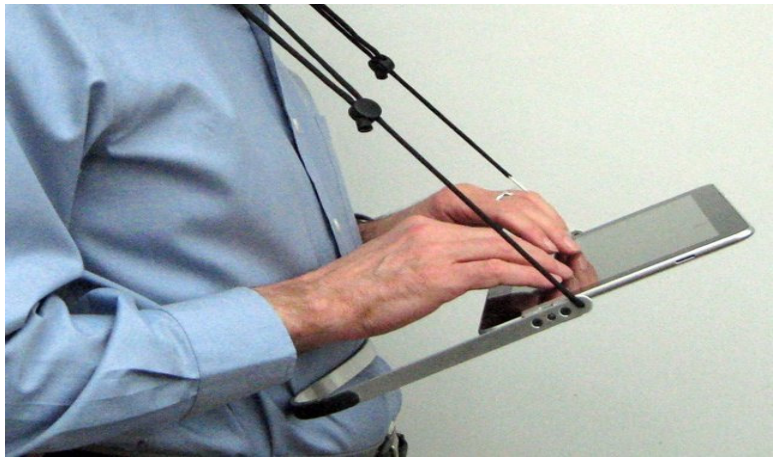
426
CHICKEN MARKET
בשר כשר

PASSIVE LEISURE

LABOR SAVING DEVICES

IS TECHNOLOGY OUR FRIEND OR OUR FOE?

MOBILE TECHNOLOGY IS….WELL……*MOBILE*



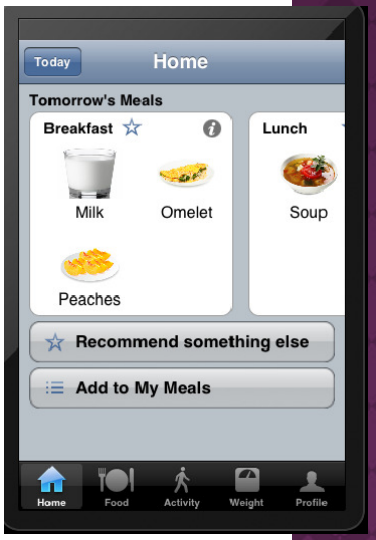
GROWING UBIQUITY OF MOBILE PHONES

68% of adults worldwide and 75% of US high school students own a mobile phone.

International Communications Union, 2010; Kosaraju et al., *Telemed J E Health*, 2010.

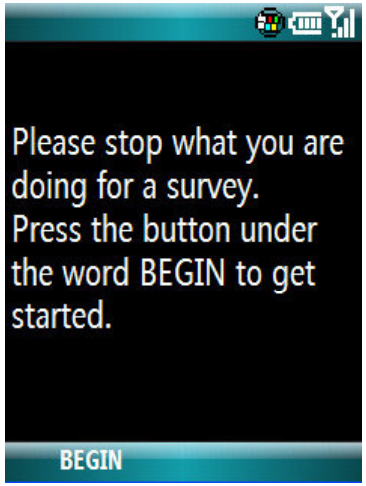
HARNESSING MOBILE TECHNOLOGY TO FIGHT OBESITY

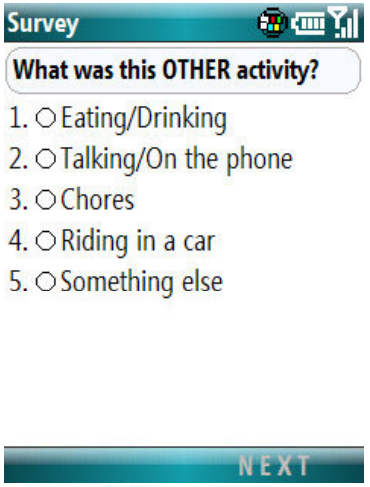
- Mobile surveying
- Mobile sensing
- Mobile health apps
- Mobile social networking

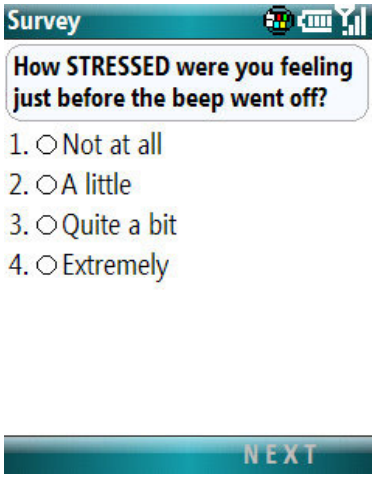


MOBILE SURVEYING

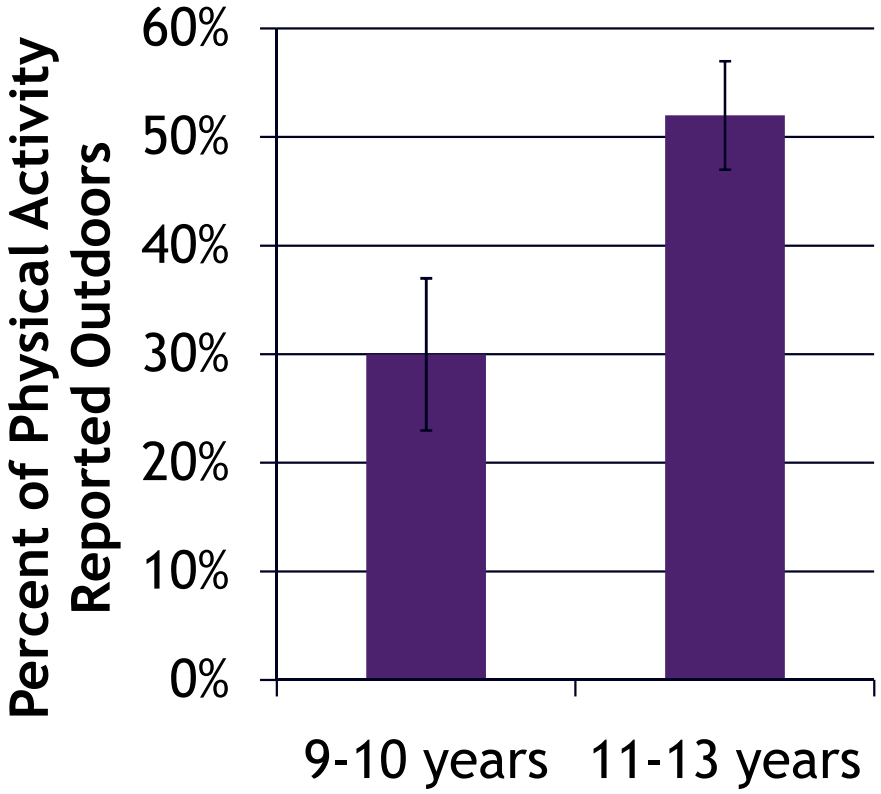
(AKA: ECOLOGICAL MOMENTARY ASSESSMENT)

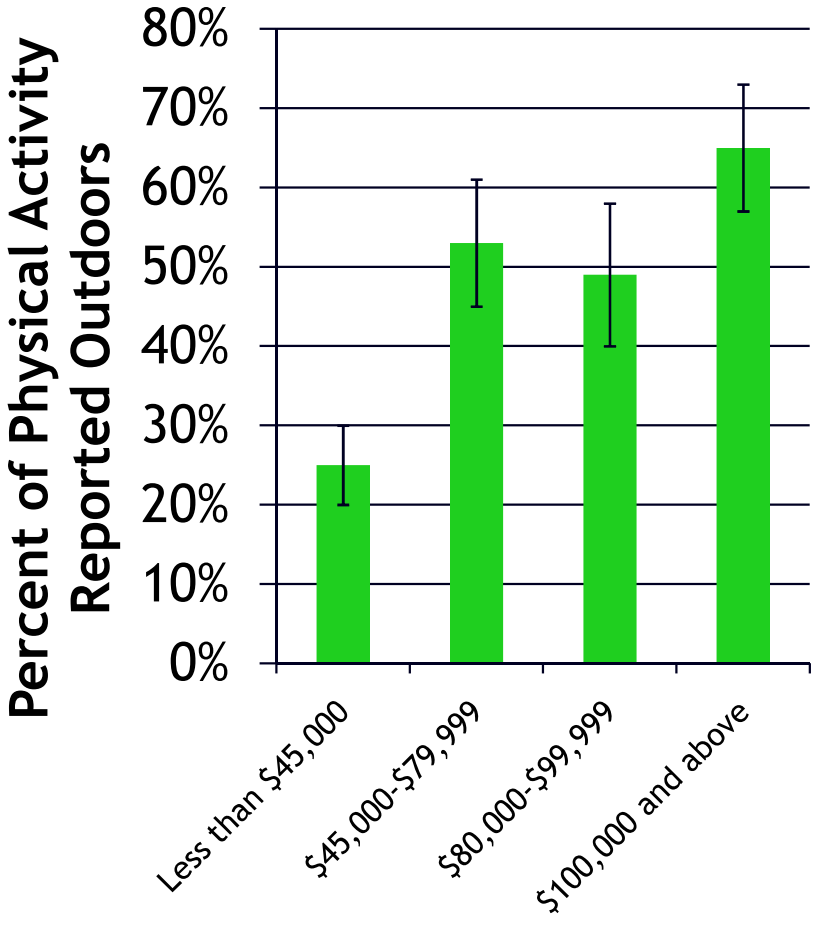






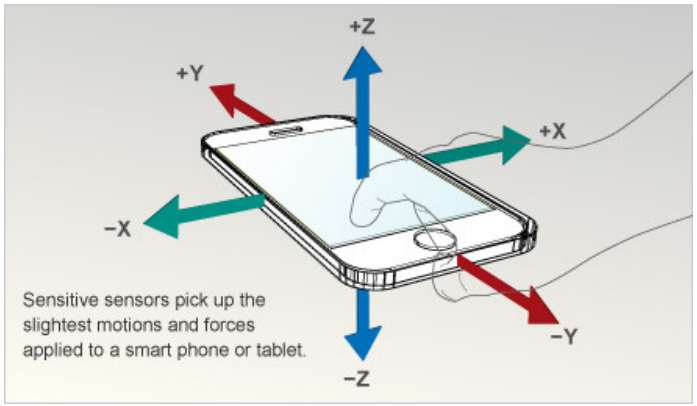
AGE AND INCOME DIFFERENCES IN CHILDREN'S PHYSICAL ACTIVITY CONTEXTS

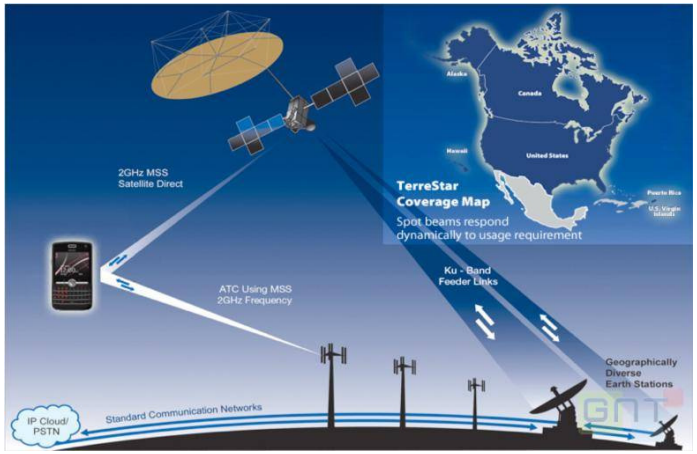




Dunton et al., *American Journal of Health Promotion*, 2012

MOBILE SENSING

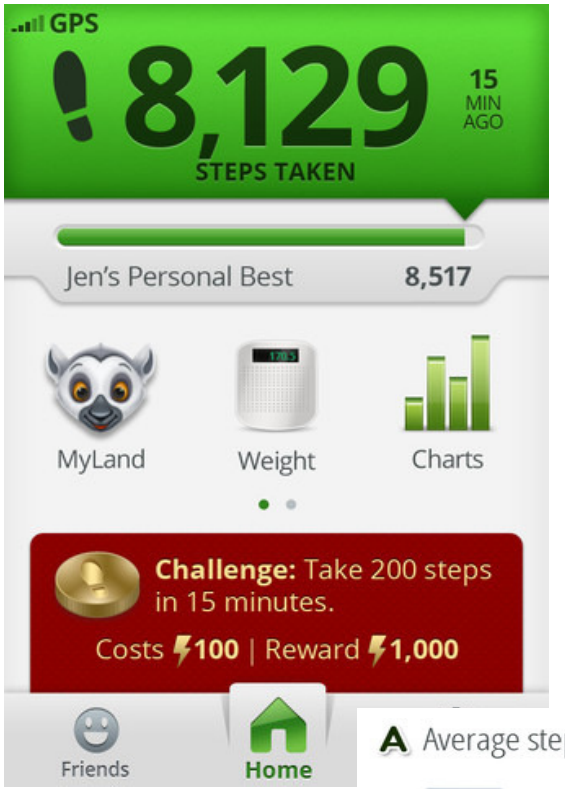


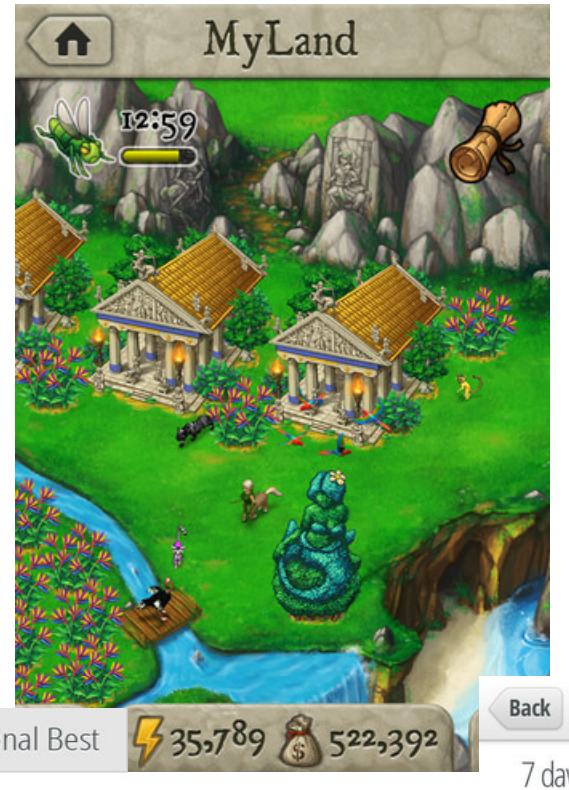


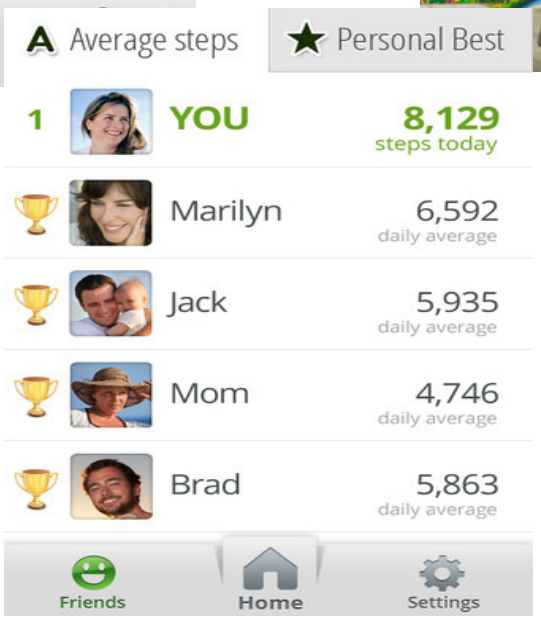
Automatic Activity Detection and Assessment

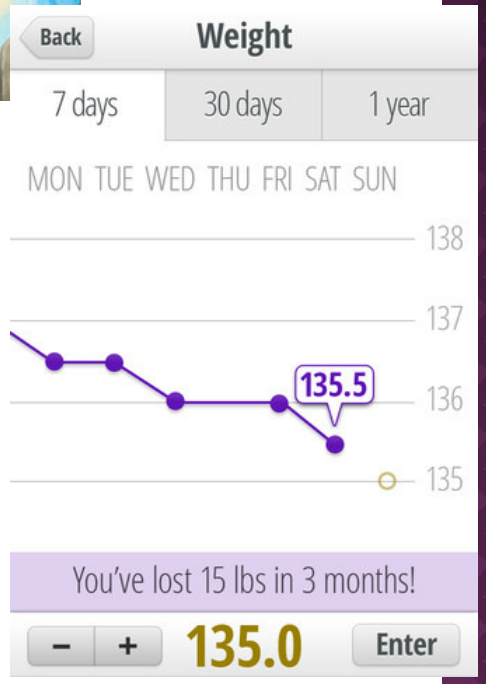
Tailored Feedback and Prompting

MOBILE HEALTH APPS


GPS
8,129
STEPS TAKEN
15 MIN AGO
Jen's Personal Best
8,517
MyLand
Weight
Charts
Challenge: Take 200 steps in 15 minutes.
Costs 100 | Reward 1,000
Friends
Home


MyLand
12:59
35,789
522,392


Average steps
Personal Best
1
YOU
8,129
steps today
Marilyn
6,592
daily average
Jack
5,935
daily average
Mom
4,746
daily average
Brad
5,863
daily average
Friends
Home
Settings


Back
Weight
7 days
30 days
1 year
MON TUE WED THU FRI SAT SUN
138
137
136
135
135.5
You've lost 15 lbs in 3 months!
135.0
Enter

MOBILE SOCIAL NETWORKING

iaincollins: #weight 17 st 6 lbs - Actually felt full last night after eating regular, rather than low fat, noodles.

2 days ago from *twitterrific* · Reply · View Tweet

johncachero: 5 weeks into my #weight loss regiment, I've lost 12.5 lbs. total (-0.5 lbs. from last week's weigh-in). Small loss, but still a loss.

3 days ago from *twhirl* · Reply · View Tweet

iaincollins: #weight 17 St 7 lbs - I'm a diet *machine*

3 days ago from *twitterrific* · Reply · View Tweet

CHALLENGES

- Lack of evidence base
- Privacy protection
- Toxic exposures
- Will people use it?

THE FUTURE?

THANK YOU

ACKNOWLEDGEMENTS

- American Cancer Society Mentored Research Scholar Grant 118283-MRSGT-10-012-01-CPPB (Dunton, PI).
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- National Cancer Institute #R01-CA-123243 (Pentz, PI).