

# TOKYO – MOBILE HEALTH PER PAZIENTI DIABETICI

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# DIALBETICS: A NOVEL SMARTPHONE-BASED SELF-MANAGEMENT SUPPORT SYSTEM FOR TYPE 2 DIABETES PATIENTS

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# INTRODUCTION

## ITALY


- ✓ 3.9 million Italian adults have diabetes, making 8.8% of the total population
- ✓ Ongoing epidemic with an estimated 4.48 million adult citizens with diabetes in 2030
- ✓ Only 10% of diabetic people achieve the target for glycemia, cholesterol and blood pressure
- ✓ 27.393 Italian citizens die from diabetes every year, this is 3 citizens every hour
- ✓ Type 2 diabetes, accounting for 90% of all diabetes in Italy, decreases life expectancy by 5-10 years
- ✓ Diabetes costs the Italian healthcare budget 9% of its resources. This is over 9.22 billion EUR€ a year or 1.05 million EUR every hour

## ALL OVER THE WORLD

MORE THAN  
**371 million**  
people have  
diabetes 

**471 billion**  
USD 

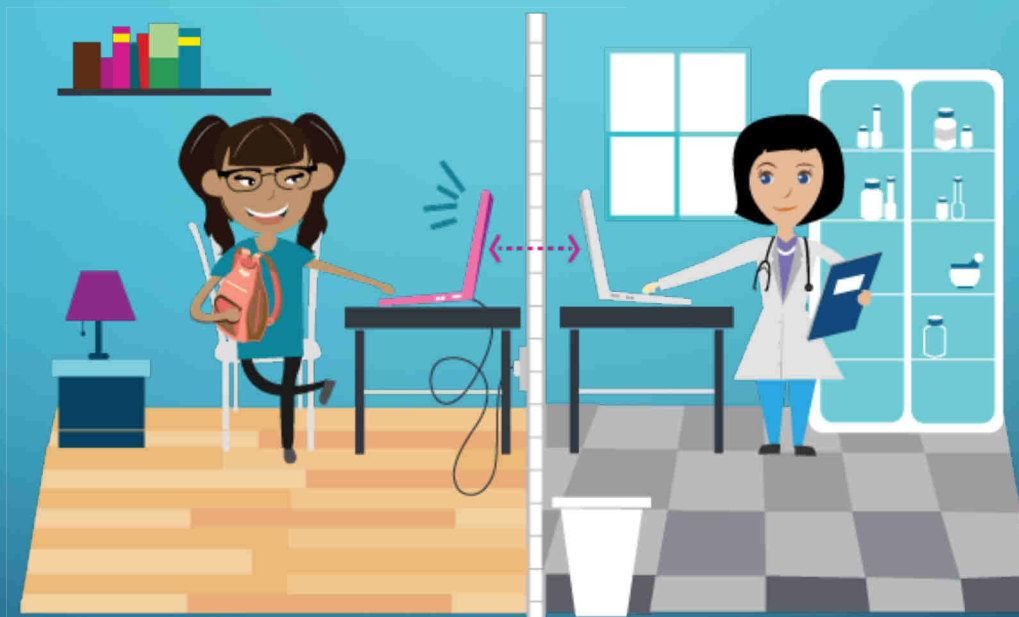
**50%**  
with diabetes  
are undiagnosed 

**4.8 million**  
people died  
of diabetes 

**PATIENT**

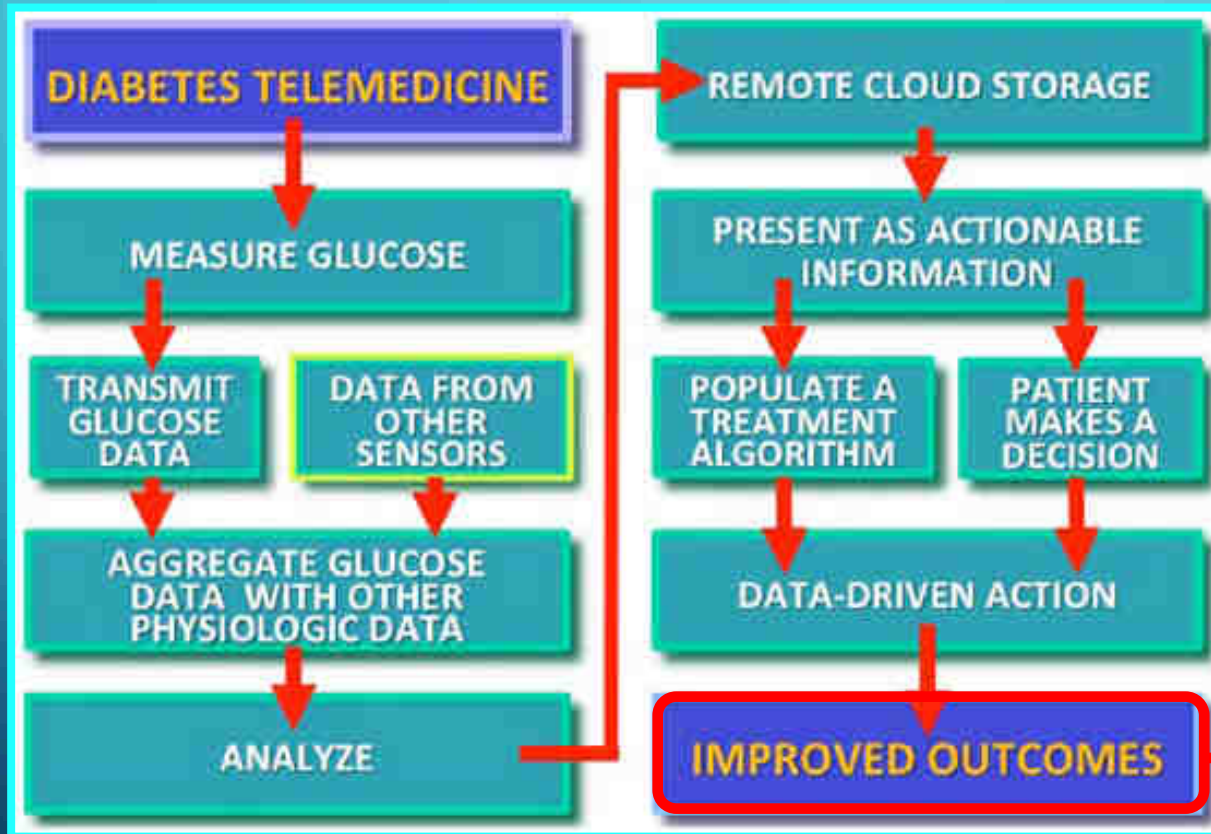
**EDUCATION**

**DOCTOR**



**AWARENESS**

# SELF-MANAGEMENT

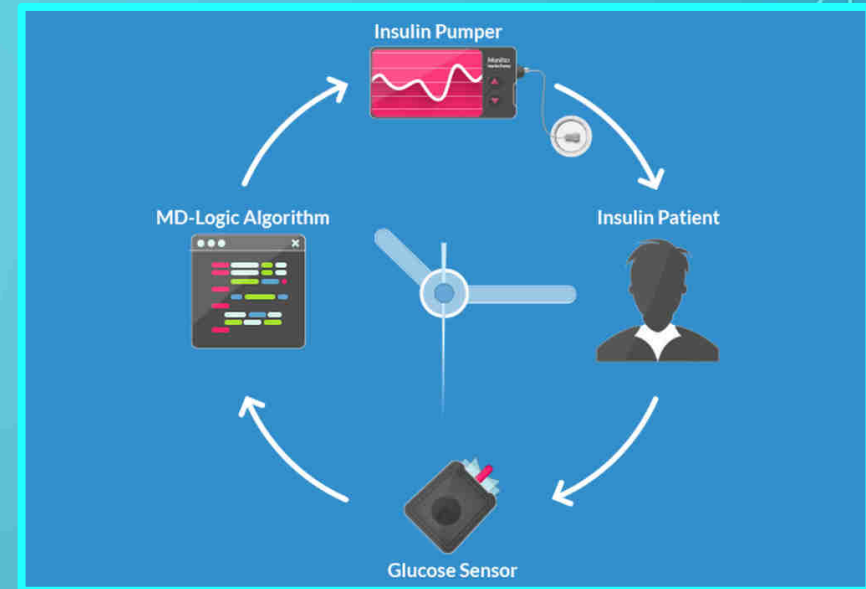


35 RCT of T2D → significant difference in A1C of 0.37% ( $p < 0,00001$ ) [Zhai 2014]

21 RCT of T2D → significant difference in A1C of 0.31% ( $p < 0,00001$ ) [Flodgren 2015]

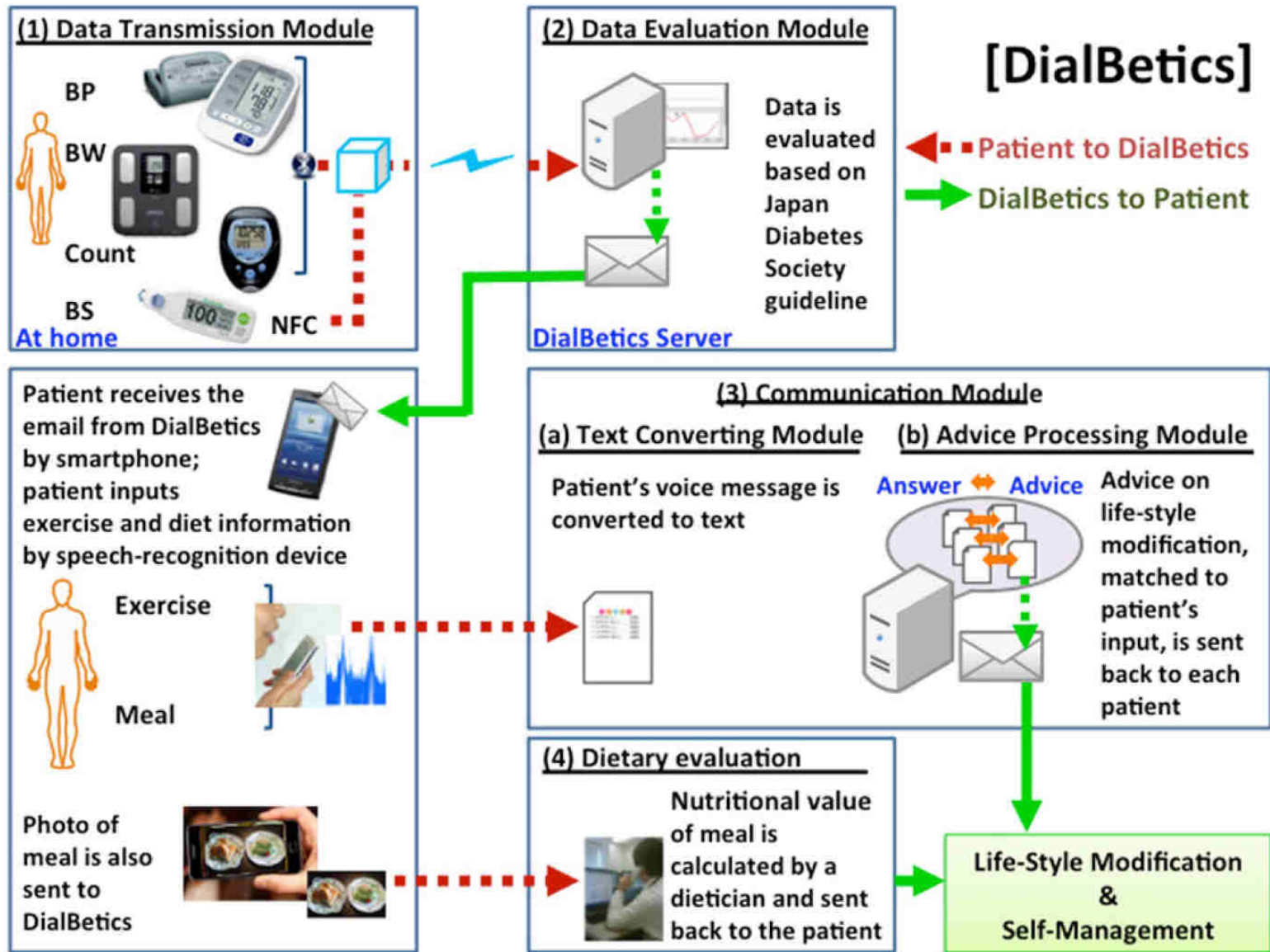
✓ **SENSOR-BASED  
TELEMEDICINE**

✓ **NON-SENSOR-  
BASED  
TELEMEDICINE**



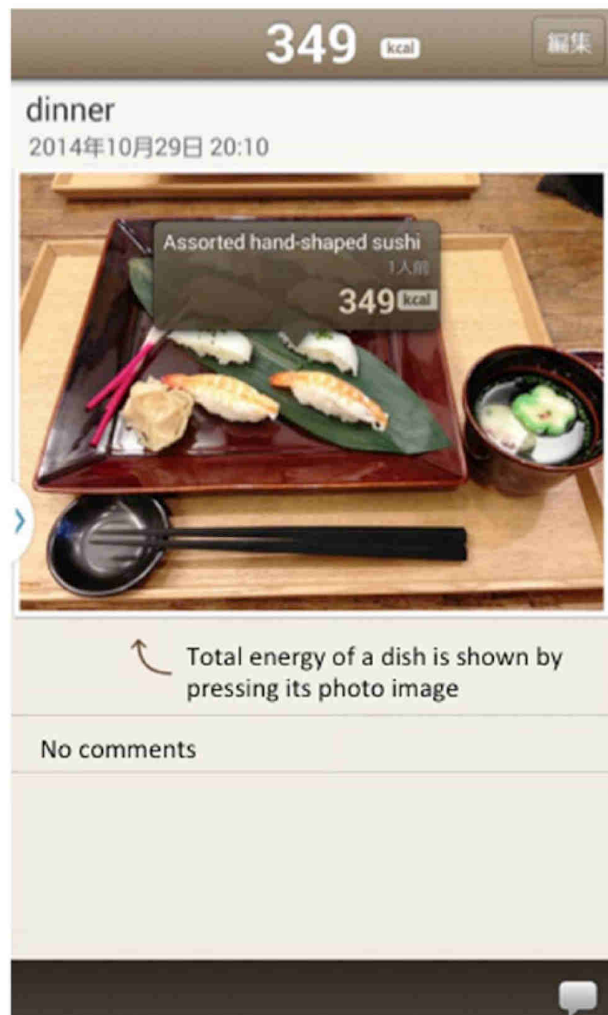


# [DialBetics]

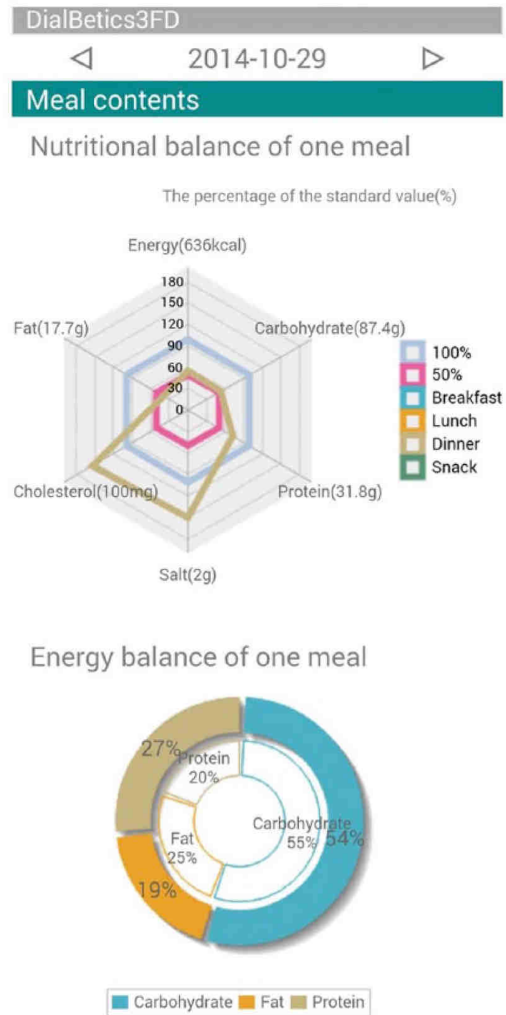


Waki K et al.  
J Diabetes  
Sci Technol  
2014 8:209

(a)



(b)



# DIETARY EVALUATION OF DIALBETICS ASSISTED BY FOODLOG

Waki K et al. J Diabetes Sci Technol 2015 1-7



# BASELINE CHARACTERISTICS OF THE CLINICAL TRIAL POPULATION BY STUDY GROUP

	DialBetics group (n = 27)	Non-DialBetics group (n = 27)
HbA1c		
8.6-9.5%	3	2
7.6-8.5%	4	6
7.1-7.5%	4	2
≤7.0%	16	17
Age (years)	57.1 ± 10.2	57.4 ± 9.4
Sex		
Female	7	6
Male	20	21
Smoking		
Yes	4	10
No	23	17
Years with diabetes	9.6 ± 7.0	8.5 ± 8.0
Body mass index (kg/m <sup>2</sup> )		
≥30	6	5
25.0-29.9	7	9
≤24.9	14	13
Comorbid conditions		
Hypertension	13	15
Lipid disorders	12	19
Atherosclerotic diseases	8	5
Microvascular diseases	4	8
Medication treatment regimen		
No medication	7	6
Oral hypoglycemic alone	13	20
Injectable noninsulin alone	4	0
Injectable noninsulin and oral hypoglycemic	3	1