Beliefs of consumers with type 2 diabetes

Merck routinely conducts market research with health care providers and patients, to understand beliefs and actions related to type 2 diabetes.

The objective of this deck is to share market research findings that may potentially help support patient education and awareness around type 2 diabetes.
Patient Awareness

The following slides are A1C awareness insights
A1C Perception

Many consumers with type 2 diabetes were aware on an unaided basis that an A1C test measures blood sugar over a period of time

What does A1C represent?

- Sugar level over a time period (net) 45%
- Average/amount of sugar level over a period of time 17%
- Average/amount of sugar level in last 2 to 6 months 28%
- Average/amount of sugar level up to 1 month 1%
- Amount of sugar level in blood (net) 33%

“It shows my doctor how my blood sugar levels have been over the last 3 or 4 months”

“Overall blood sugar”

“A1C gives an indication of whether your blood sugars have been higher than they should be or running about normal during the past 3 months by giving a number such as 6.1, 6.4, 7.2, etc and anything over 7 is considered to be an indicator of high daily blood sugars”

“Effective control over time”

“Not real certain”

“I think it is about the percent of sugar in the blood”

“My tested value should be less than 7”

“A composite number of blood sugar (glucose) levels over a long time period”

BASE: The survey was fielded from September 14 through October 9, 2015. Base of respondents (n=615); respondents aware of A1C (n=558). Q7e. In your own words, what do you think A1C represents? (Recipient can answer and answers may fall in multiple categories.)

1. Data available on request from Merck. DIAB-1206401-0006.
There are several ways for doctors and patients to track how well type 2 diabetes is controlled over time. What measure does your doctor use to track how well your type 2 diabetes is controlled over time?

52% of respondents were aware that A1C is a measure of glycemic control

A1C is a measure of the average blood sugar levels in the past 2 to 3 months. Do you know what your A1C result was at your last doctor visit?

67% reported knowing their latest A1C result

**BASE:** The survey was fielded from September 14 through October 9, 2015. Quotas were set by segment, product usage, and ethnicity, with an overall study base of respondents. **All Qualified Respondents (n=615).**

Q7. There are several ways for doctors and patients to track how well type 2 diabetes is controlled over time. What measure does your doctor use to track how well your type 2 diabetes is controlled over time? Q7b. A1C is a measure of the average blood sugar levels in the past 2 to 3 months. Do you know what your A1C result was at your last doctor visit?

1. Data available on request from Merck. DIAB-1206401-0006.
Hypoglycemia
Hypoglycemia Treatment and Reporting

The majority of patients with type 2 diabetes experiencing hypoglycemia say they managed the symptoms on their own\(^1\)

**Actions Taken to Address Side Effects** “Dizziness or shaking or fatigue or sweating” included:

Among those who experienced them:

- Managed the symptoms on my own
  - W2 Nov’14 (n=114): 66%
  - W4 Sep’15 (n=82): 58%

If doctor was not informed, reasons why included:

- It wasn’t a serious problem
  - W2 Nov’14 (n=76): 31%
  - W4 Sep’15 (n=49): 27%

- I haven’t had an appointment yet since this occurred
  - W2 Nov’14 (n=76): 32%
  - W4 Sep’15 (n=49): 26%

- It was related to something I did (for example, low blood sugar from skipping a meal)
  - W2 Nov’14 (n=76): 18%
  - W4 Sep’15 (n=49): 38%

- It’s just something I experience as part of diabetes
  - W2 Nov’14 (n=76): 30%
  - W4 Sep’15 (n=49): 33%

**BASE:** The survey was fielded from September 14 through October 9, 2015. Quotas were set by segment, product usage, and ethnicity.

Q10. You said that you experienced [Dizziness or shaking or fatigue or sweating] within the past 3 months. After you experienced this, what did you do to address these symptoms? If You Did Not Talk to Doctor: Why didn’t you talk to your doctor about dizziness or shaking? Please select all that apply: 1. It wasn’t a serious problem; 2. I wasn’t sure if the symptoms were related to diabetes; 3. It’s just something I experience as part of diabetes; 4. It was related to something I did (for example, low blood sugar from skipping a meal); 5. I forgot about it when I was at my doctor’s office; 6. I didn’t have enough time during my appointment to discuss it; 7. I haven’t had an appointment yet since this occurred; 8. Other, please specify.

1. Data available on request from Merck. DIAB-1206401-0006.
Technology
The majority of respondents own a smartphone and/or a computer\(^1\)

### Devices Owned in Addition to a Smartphone

<table>
<thead>
<tr>
<th>Device</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smartphone (mobile phone with data capabilities)</td>
<td>74%</td>
</tr>
<tr>
<td>Laptop or desktop computer</td>
<td>91%</td>
</tr>
<tr>
<td>Tablet computer</td>
<td>62%</td>
</tr>
<tr>
<td>Home phone</td>
<td>55%</td>
</tr>
<tr>
<td>E-Reader</td>
<td>28%</td>
</tr>
<tr>
<td>Fitness tracker</td>
<td>25%</td>
</tr>
<tr>
<td>Regular cell phone</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Survey Objectives:** The objectives were as follows: Understand consumer interest in tools to help patients develop habit of taking medicine. Understand level of motivation, likelihood and preference of components. Understand if respondents are mobile-enabled.

**Methodology:** The survey was fielded from April 1 through April 13, 2016. Measurement of listed objectives was obtained via a 10-minute online survey sent to registered members of the A1C market research community, with 374 community members completing the survey.

**Base:** All Respondents (n=374), S1. Which of the following devices, if any, do you personally have?

1. Data available on request from Merck. DIAB-1206401-0002.
Most respondents used a pillbox as a tool to remind them to take medication

However, only 66% of respondents believed it was very helpful

Survey Objectives: The objectives were as follows: Understand consumer interest in tools to help patients develop habit of taking medicine. Understand level of motivation, likelihood and preference of components. Understand if respondents are mobile-enabled.

Methodology: The survey was fielded from April 1 through April 13, 2016. Measurement of listed objectives was obtained via a 10-minute online survey sent to registered members of the A1C market research community, with 374 community members completing the survey.

Base: All Respondents (n=374).

Q105. Which of the following tools, if any, do you use to help remind you to take your diabetes medication? Q106. How helpful are the following tools when it comes to reminding you to take your medication? Respondent answers can fall into multiple categories.

E-mail alerts, self-set reminders, and smartphone apps are the top 3 most helpful tools, yet only ~10% of respondents use them.

1. Data available on request from Merck. DIAB-1206401-0002.
Health Care Insurance
97% of respondents said they have insurance coverage for prescription medication¹

- **DEDUCTIBLES**
  - 37% said they have a deductible
  - 57% said they do NOT have a deductible
  - 6% said they don’t know
  - 57% Separate (for Rx meds only)
  - 36% Shared (Rx meds and doctor visits)
  - 7% None

Source: The survey (titled Insurance Study Report), fielded by IPSOS on behalf of Merck & Co., Inc., from February 19 through February 27, 2016. Measurement of listed objectives was obtained via a 5-minute (median time) online survey sent to registered members of the A1C community. 207 community members completed the survey, of which 20 had type 1 diabetes, and 187 had type 2 diabetes.

Base: Respondents with health coverage for prescription medication (n=201). Small base size.

Q101. Does the health insurance you currently have include coverage for prescription medication in 2016?
Q103. Does your prescription coverage have a deductible? Q103A. Which of the following best describes your deductible amount for prescription medications?
Q104. What is the deductible amount?

¹ Data available on request from Merck. DIAB-1206401-0003.
Data available on request from Merck, Professional Services-DAP, WP1-27, PO Box 4, West Point, PA 19486-0004. Please specify information package DIAB-1206401-0002.

Data available on request from Merck, Professional Services-DAP, WP1-27, PO Box 4, West Point, PA 19486-0004. Please specify information package DIAB-1206401-0003.

Data available on request from Merck, Professional Services-DAP, WP1-27, PO Box 4, West Point, PA 19486-0004. Please specify information package DIAB-1206401-0006.
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Market Research Insights – Overview

Beliefs of consumers with type 2 diabetes

Merck routinely conducts market research with health care providers and patients to understand beliefs and actions related to type 2 diabetes.

The objective of this deck is to share key market research findings that may potentially help improve patient education and awareness about type 2 diabetes.

A1C Results Awareness

Consumer knowledge of A1C results

- There are several ways for doctors and patients to track how well type 2 diabetes is controlled over time. What measure does your doctor use to track how well your type 2 diabetes is controlled over time?

- 52% of respondents were aware that HbA1c is a measure of glycemic control.

- A1C is a measure of the average blood sugar levels over the past 2 to 3 months. Do you know what your A1C result was at your last doctor visit?

- 67% reported knowing their latest A1C result.

Hypoglycemia Treatment and Reporting

The majority of patients with type 2 diabetes experiencing hypoglycemia say they managed the symptoms on their own.

Actions taken to address side effects of hypoglycemia included:

- Manage to avoid hypoglycemia
- Ensure adequate glucose intake
- Insulin-related treatments
- Tight blood sugar control

- 10% of patients reported taking insulin or a medication for diabetes.

Technology

The majority of respondents own a smartphone and/or a computer.

- 74% own smartphones (mobile phones with internet capabilities).
- 55% own a tablet.
- 25% own an e-reader.
- 91% own a home computer.
- 26% own a work computer.
- 10% own a laptop computer.

Insurance Coverage

- 97% of respondents said they have insurance coverage for prescription medication.

- 37% said they have a deductible of the 37%.

- 57% said they do NOT have a deductible.

- 6% said they don’t know.

- 57% of insured respondents said they are aware of their deductibles.