About this research

Questions about:
• Success (outcomes) of current care
• Emotional well being
• Social stigma from diabetes and its effect on patients
• Diabetes impact on quality of life
• Diabetes impact on daily life

3,000 completed online surveys in Summer 2016
Adults with type 1 diabetes (n=1,025; T1)
People with type 2 diabetes on insulin (n=1,150; T2I)
People with type 2 diabetes not on insulin (n=1,280; T2NI)

Plus other results from dQ&A surveys in 2016 and 2017 (n=5,000)

How do patients measure success, or lack of it?

“Is your diabetes management better or worse this year than last? And why?”

1 in 4 patients with Type 1
1 in 5 patients with type 2 on insulin
1 in 4 patients with type 2 on oral agents

... mentioned their A1c unprompted in their answers

Current therapies are not delivering success

Respondents to dQ&A Patient Panel Survey August 2016 (n=3,455)

Does A1c success make you feel better?

“How successful is your diabetes therapy at...”

Improving/maintaining A1c

Successful, 37%  34%
Not successful, 4%

Preventing/limiting negative feelings

Successful, 29%  19%
Not successful, 10%
A1c gains don’t guarantee emotional payoffs

“My A1c is worse than last year”  “My A1c is the same as last year”  “My A1c is better than last year”

22%  35%  35%

say their diabetes care is successful at limiting or preventing negative feelings.

Measuring emotional well-being

The Warwick-Edinburgh Mental Well-being scale

Pros:
Short, positively worded, validated in 14 countries and languages, covers both feeling and functioning
Sensitive to well-being changes that arise from programs that encourage activity and healthy eating

Cons:
Designed for general population use. Not diabetes-specific.

What correlated with better emotional well-being?

<table>
<thead>
<tr>
<th>Higher</th>
<th>Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good diabetes control (self evaluated)</td>
<td>Poor diabetes control</td>
</tr>
<tr>
<td>More time in the ideal glucose range</td>
<td>Less time in the ideal glucose range</td>
</tr>
<tr>
<td>A1c the same or better than last year</td>
<td>A1c worse than last year</td>
</tr>
<tr>
<td>At goal (A1c ≤ 7%)</td>
<td>Not at goal (A1c &gt; 7%)</td>
</tr>
<tr>
<td>Having an A1c goal</td>
<td>Not having an A1c goal</td>
</tr>
<tr>
<td>Having a weight goal</td>
<td>No weight goal</td>
</tr>
<tr>
<td>No significant hypo concerns</td>
<td>Significant hypo concerns</td>
</tr>
<tr>
<td>Low BMI</td>
<td>High BMI</td>
</tr>
<tr>
<td>No complications</td>
<td>Complications (especially DPN, Kidney function)</td>
</tr>
<tr>
<td>Support from family, friends, other PWDS</td>
<td>Lack of support and knowledge</td>
</tr>
</tbody>
</table>

More correlations...

Improvements over last year in:
- Managing weight
- Affordability of diabetes treatment
- Complications
- Energy level and ability to do things
- Tolerating side-effects of medications
- Exercise and fitness

Social stigma is also part of the emotional challenge

...And the more intensive the therapy, the more it is felt

20% of people with type 2 on oral agents
30% of people with type 2 on insulin
40% of people with type 1

Strongly agree that they have been made to feel guilt, shame, isolation or blame because of their diabetes.
Social stigma: what we say, and what we do

What we say: “Does diabetes in the USA come with social stigma attached?”

What we do: “Do your Facebook friends know you have diabetes?”

Diabetes impact on quality of life

Good sex life/intimacy with someone you care for
Not worrying too much about money
Energy for new challenges/opportunities
Getting enough sleep
Physically able to do the things you want
Not feeling anxious or depressed
Feeling in control of your life
Able to be spontaneous/live in the present
Being able to plan for the future
Rewarding work or school career
Not feeling isolated or different
Enjoying social situations
Feeling confident and capable
Able to help family, friends, community
Practicing your chosen religion or spiritual life
Support of your family and friends

How much impact on your daily life?

<table>
<thead>
<tr>
<th>RANK</th>
<th>Type 1 (n=1,016)</th>
<th>Type 2 on insulin (n=1,141)</th>
<th>Type 2 no insulin (n=1,266)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Time in Range</td>
<td>Time in Range</td>
<td>Time in Range</td>
</tr>
<tr>
<td>#2</td>
<td>Unexpected BG</td>
<td>Non-Diabetes Health Issues</td>
<td>Non-Diabetes Health Issues</td>
</tr>
<tr>
<td>#3</td>
<td>Dosing insulin</td>
<td>Dosing insulin</td>
<td>Dosing insulin</td>
</tr>
<tr>
<td>#4</td>
<td>Hypoglycemia</td>
<td>Symptoms of complications</td>
<td>Symptoms of complications</td>
</tr>
</tbody>
</table>

What does this mean for quality of life?

- Not having energy for new challenges/opportunities: 32% of T2NI affected
- Not being physically able to do what you want: 46% of T2 affected
- Worrying too much about money: 52% of T1 affected
- Not feeling stressed or anxious: 38% of T2I affected
- Not getting enough sleep: 48% of T1 affected

How does diabetes affect quality of life?

- Intimacy with someone you care for
- Not too much worry about money
- Energy for new challenges/opportunities
- Getting enough sleep
- Physically able to do the things you want
- Not feeling anxious or depressed
- Feeling in control of your life
- Able to be spontaneous/live in the present
- Being able to plan for the future
- Rewarding work or school career
- Not feeling isolated or different
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- Feeling confident and capable
- Able to help family, friends, community
- Practicing your chosen religion or spiritual life
- Support of your family and friends

Diabetes, emotional well-being, and quality of life.

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