Gilenya Social Intelligence

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Overview

- Project background
- Methodology
- Switching patterns
- Validity and replicability

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What are the typical uses of social media ?

Social Media in Traditional Market Research

- True, honest and emotional look at what is being said about a brand, a competitor brand or a therapy area.
- Undirected conversation. No interviewer/group leader to orientate the conversation. It takes place organically.
- Traditional market research can be a slow process. Social media allows you to see what's being discuss in real time.
- You can listen to thousands of voices all at once. The volume of voices accessible through social media will never be accessible through traditional market research.
- Easy follow-up in time for trend detection

Can social media be used to answer outcome questions and generates scientific evidences?

*Law M. *Online Drug Information in Canada.* Pharmaceutical Advertising Advisory Board; 2012.
** Dawson J. *Doctors join patients in going online for health information.* New Media Age. 2010.

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Some data on social media in healthcare

Background

- The pharmaceutical industry has largely avoided in social media by fear of regulators, privacy concern, lack of familiarity, difficulty to quantify the return on investment
- Mid-sized and specialized healthcare companies are leading the change toward engaging patients in a relationship oriented conversation
- Some data points:
  - In 2009, 70% of Canadians turned to internet for health-related information*
  - Facebook is reported as the fourth most popular source of health information in the U.K. **
- KPMG survey: 43% of Pharma and Biotech companies are planning to increase their use of social media to engage with patient

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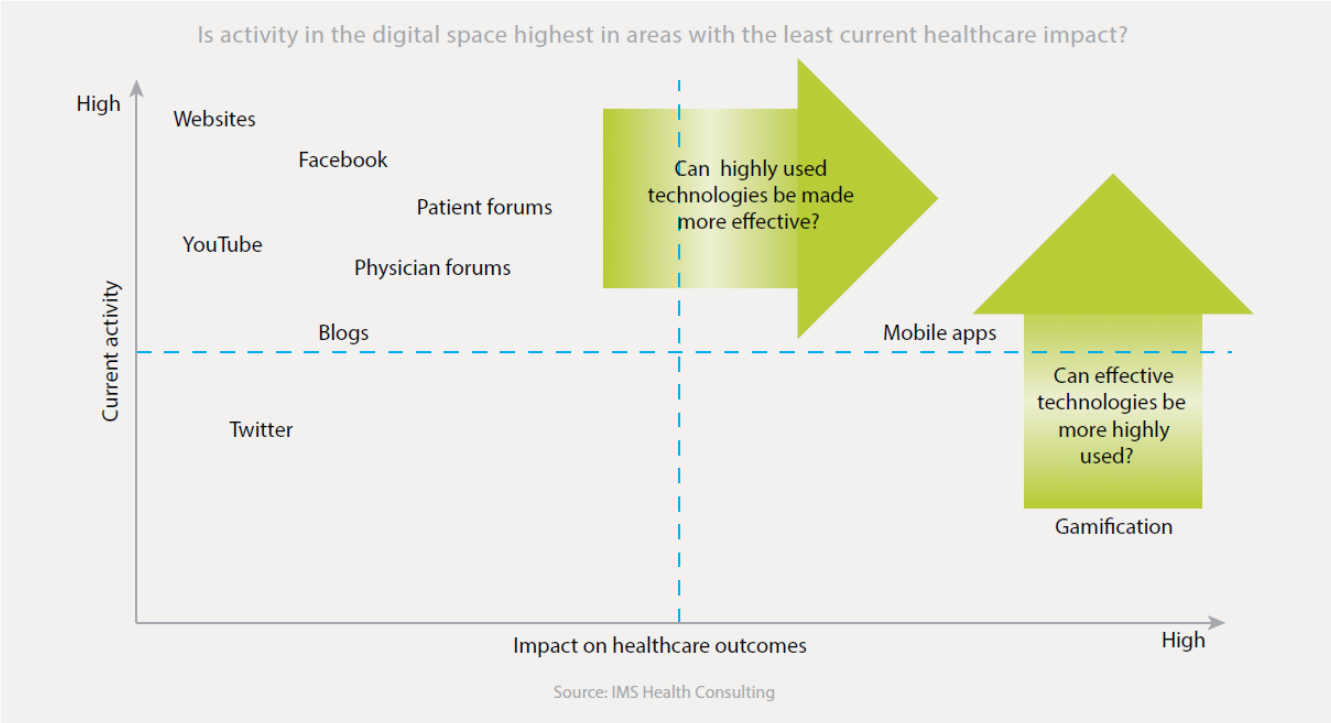
Social media impact on healthcare outcomes

Conceptual viewpoint of digital activities



*Engaging patient through social media, IMS Institute for Healthcare Informatics; January 2014.

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Pilot social media listening project in MS: Can we get valuable insight from patients?

Multiple sclerosis (MS)– shift in treatment

- MS treatment is currently dominated by injectable drugs (i.e. BRACE therapies) but oral treatments are gaining share
- Early trends measured in real world claims and pharmacy databases suggest differences in rates of discontinuation, switching patterns and dosing among oral treatments and treatment populations
- The patient perspective driving some of these trends is incomplete
- To address this, an initial pilot analysis of social media conversations about Gilenya and oral competitors was conducted by IMS
- This project was specifically designed to:
  - **a) Enhance understanding** of switching patterns and drivers among various MS treatments
  - **b) Establish the feasibility** of using social media and data for outcomes research purposes (e.g. by demonstrating the online population is representative of the whole)

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Listening and analysis process used: blends automated listening and human analysis

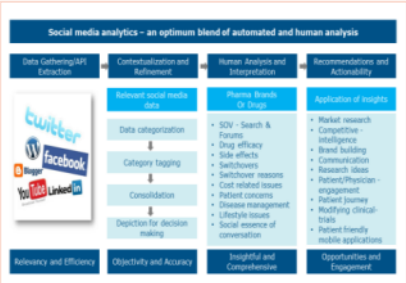
1 Data — Data discovery

- Nexxus Social ontologies
- Focused data search
- Comprehensive taxonomy
- Access to local social networks

2 Information — Extraction and filtering

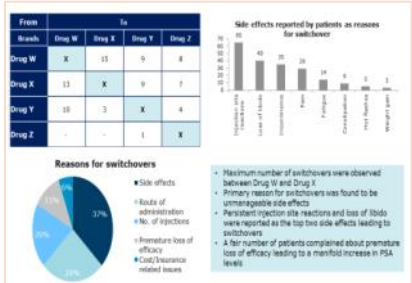
- Auto-categorizes the content based on business drivers
- Human filtering and data coding
- Contextualization
- High relevance

3 Insights — Analysis and insights



- Objective oriented analysis
- Deep dive into sample data by domain experts
- Strong focus on client needs

4 Initiatives — Actionable recommendations



- Actionable insights in consultative reports
- Innovative visualizations aid decisions

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Over 10,000 data points were analyzed

Data Extraction

1. Determined objectives and scope of the project
2. Determined keyword universe based on objectives

Extract relevant data

3. Finalized taxonomy in consultation with a physician
4. Identified all viable data sources and extracted data

Data Contextualization

- Data is extracted and segmented platform and month wise
- Data is filtered for relevancy

Bucketing of extracted data points

- Facebook – 6,919
- Forums – 6,505
- Blogs – 791
- Twitter – 8,672

Sampling

- Data is sampled based on 95% confidence level and 5% margin of error

Analyze sampled data points

- Facebook – 3,771
- Forums – 2,773
- Blogs – 691
- Twitter – 3,025

Extracted data points **25,073** [1]

Filtered data points 22,337

Total data points analyzed **10,260**

[1] *All data points from US based conversations, restricted to English language; entries made between Oct '13 – Oct '14.*

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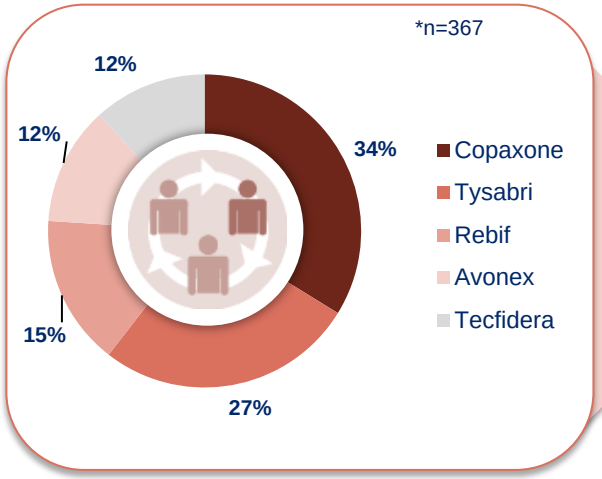
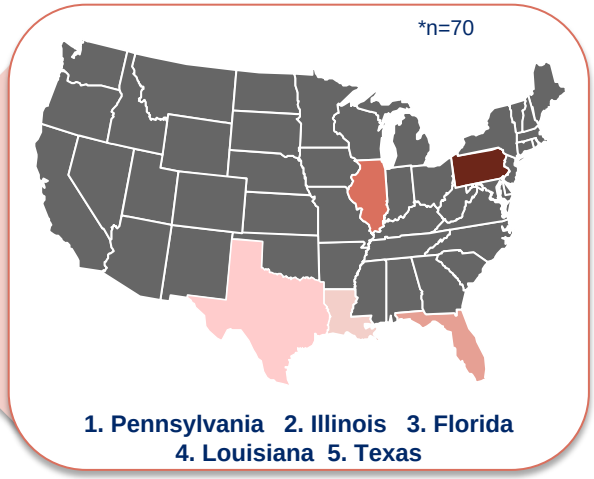
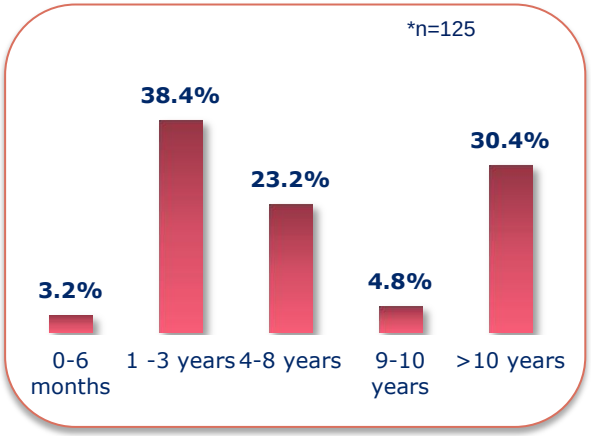
Summary of the reported information on switching pattern to Gilenya: Several key variables are considered



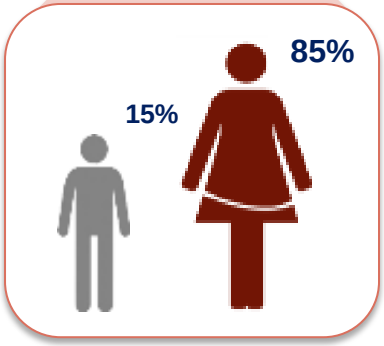
76% of the switchovers reported were made by patients using **injectable** drugs



34% of the reported **switchovers** were from **Pennsylvania**



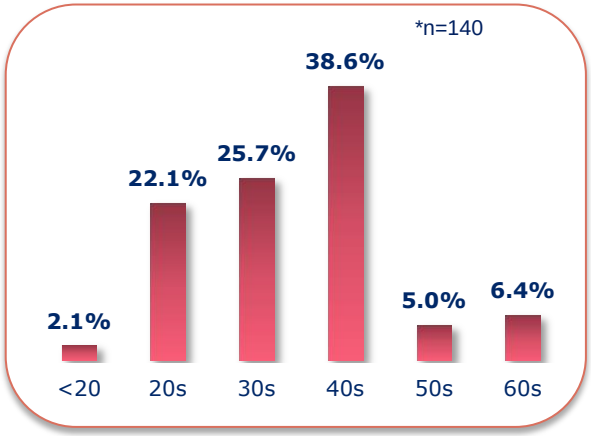
Patients with MS for **1-3 years** constituted **38%** of switchovers to Gilenya



***n=250 patients**

85% of the switchovers were reported by **females**

* A total of 441 switchovers were recorded, the most significant of which has been represented in the charts



Over **38% of patients** who switched to Gilenya fell in **age range** of **40-49**

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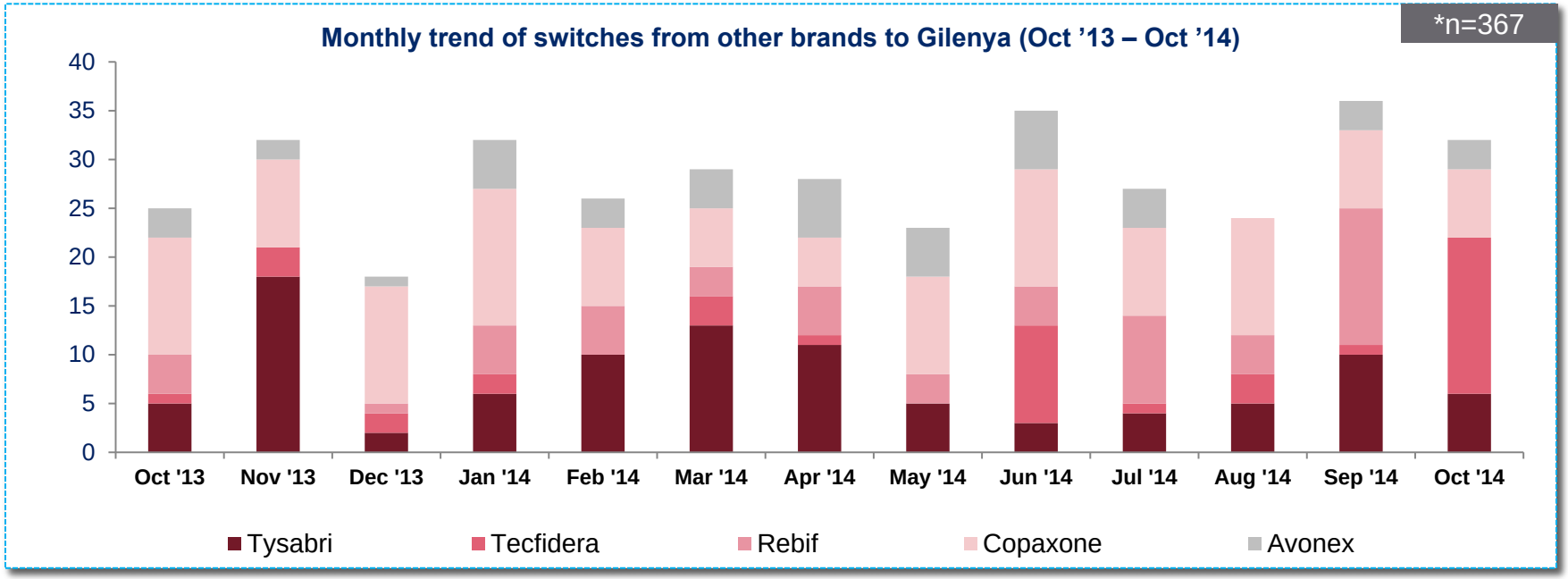
Gilenya's patients are switching from BRACE



Insights

- More than 30% of switches from **Copaxone**; monthly maximum of 14 in January 2014
- **Tysabri** is significant source of business; main reported reason was viral infections
- 43 switches reported from **Tecfidera** with highest incidence reported in Oct 2014

* A total of 441 switchovers to Gilenya were reported including Aubagio, Betaseron and other brands but have not been plotted as the proportion was significantly lower

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One third of switches driven by side effects

Burning sensation

and **flu-like symptoms** were the major side effects reported as a **reason for switchover** to **Gilenya**

Reasons for **switchover** from **other brands** to **Gilenya**

Side effects 32%

Efficacy 24%

Physician's advice 18%

Ease of use 18%

Tolerability 4%

Morbidity2 %

Cost 2%

Insurance 0.5%

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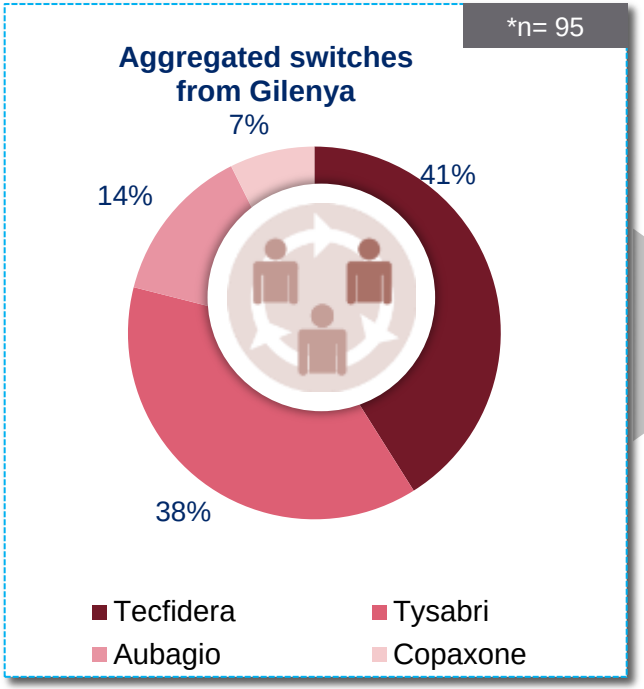
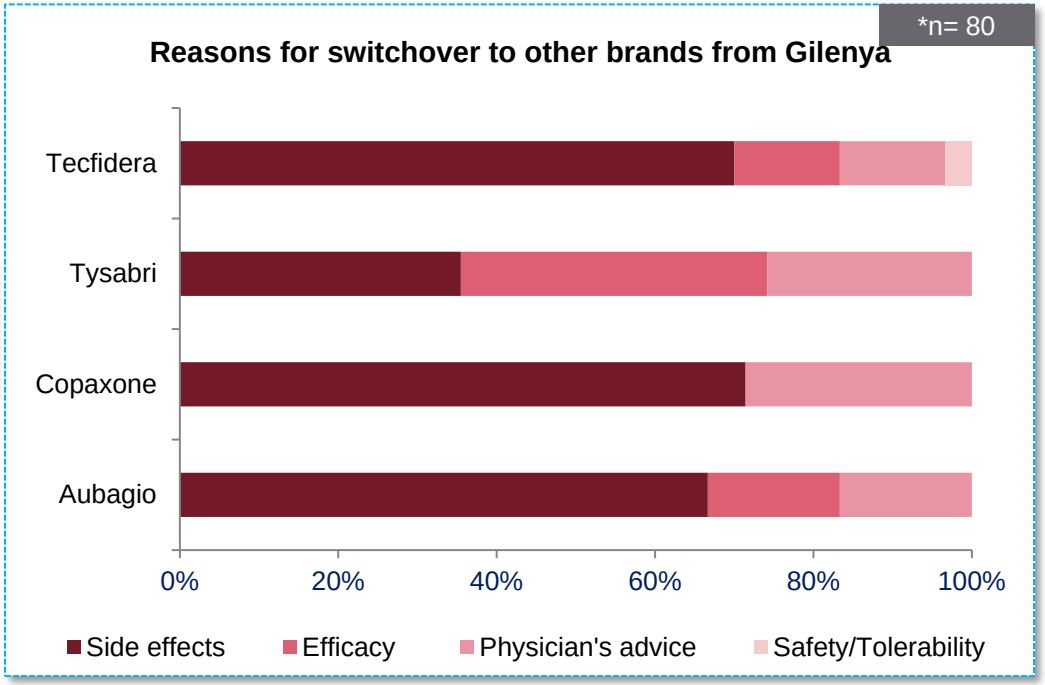
More than half of patients leaving Gilenya go to another oral





Insights

- Among patients switching to **Tecfidera**, side effects were cited as main reason
- Among patients switching to **Tysabri**, efficacy was a prime influencer

* A total of 124 switchover from Gilenya have been reported, the most significant of which has been reported

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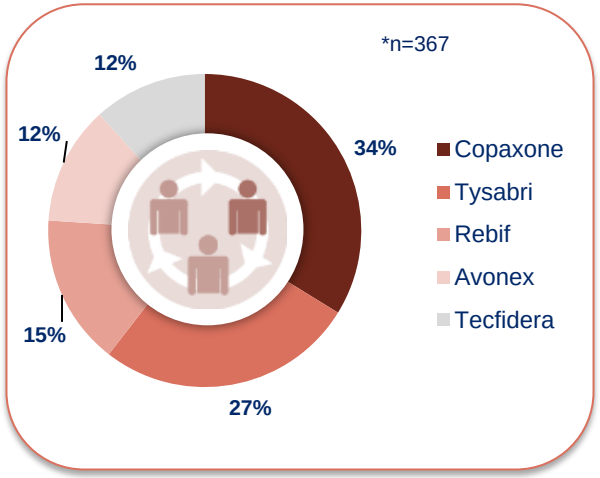
Online population is representative of the whole

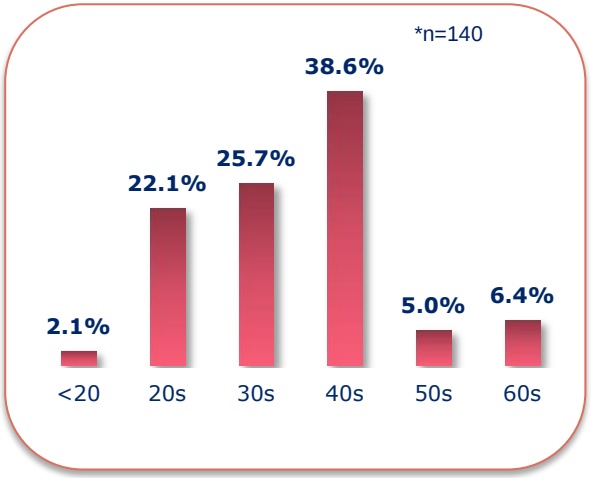
Gilenya switchers represent target demographic

- 76% of the switchovers were reported by patients on BRACE
- 85% of the switchovers were reported by women
- 38% of switchers to Gilenya had MS for 1-3 years
- 38% of patients who switched to Gilenya were aged 40-49

Switchers come from BRACE



Switchers are young adults



Conclusions

Benefits of Social Listening

- Honest, emotional feedback
- Undirected, organic conversation
- Faster than traditional market research
- Large sample sizes
- Early detection of emerging trends (e.g. tolerability switches from DMF)
- Can be used for outcome research purposes

Applicability

- Technology currently support different languages and allows to apply this approach to non English patient groups – Example in Brazil, Italy and Germany are available
- Applicable to other disease area
- Applicable to other research questions

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