

Management Science Associates, Inc.

*Evaluation & Insights
Through Real-World Data*

Unlock actionable insights and real-world data to drive company growth and refine your brand strategy for sustained excellence.

Brands That Tell a Story

◆ Product Purpose?

- MSA can assess the performance of your products across specific demographics and analyze their correlation with specific health conditions, such as, insomnia, pain management, and anxiety.

◆ Do you sell multiple brands?

- Gain insights into how your brands are performing relative to competitors using fair share market reports.
- MSA will deliver brand performance analysis reports and highlight potential areas for growth.

◆ Do your brands tell a story?

- Through MSA's evaluation process, we can analyze how your brands and specific products are addressing consumers' specific health and wellness needs.



MSA's Real-World Data Analysis for Actionable Insights

MSA has the capability to de-identify point-of-sale (POS) data through our HIPAA compliant, HITRUST certified de-identification technology.

What does this mean?

- ◆ MSA can analyze cannabis operators' POS data to evaluate demographic preferences for products, forms, types, cannabinoid ratios, brand choices, and their relationship to healthcare data.

How does this work?

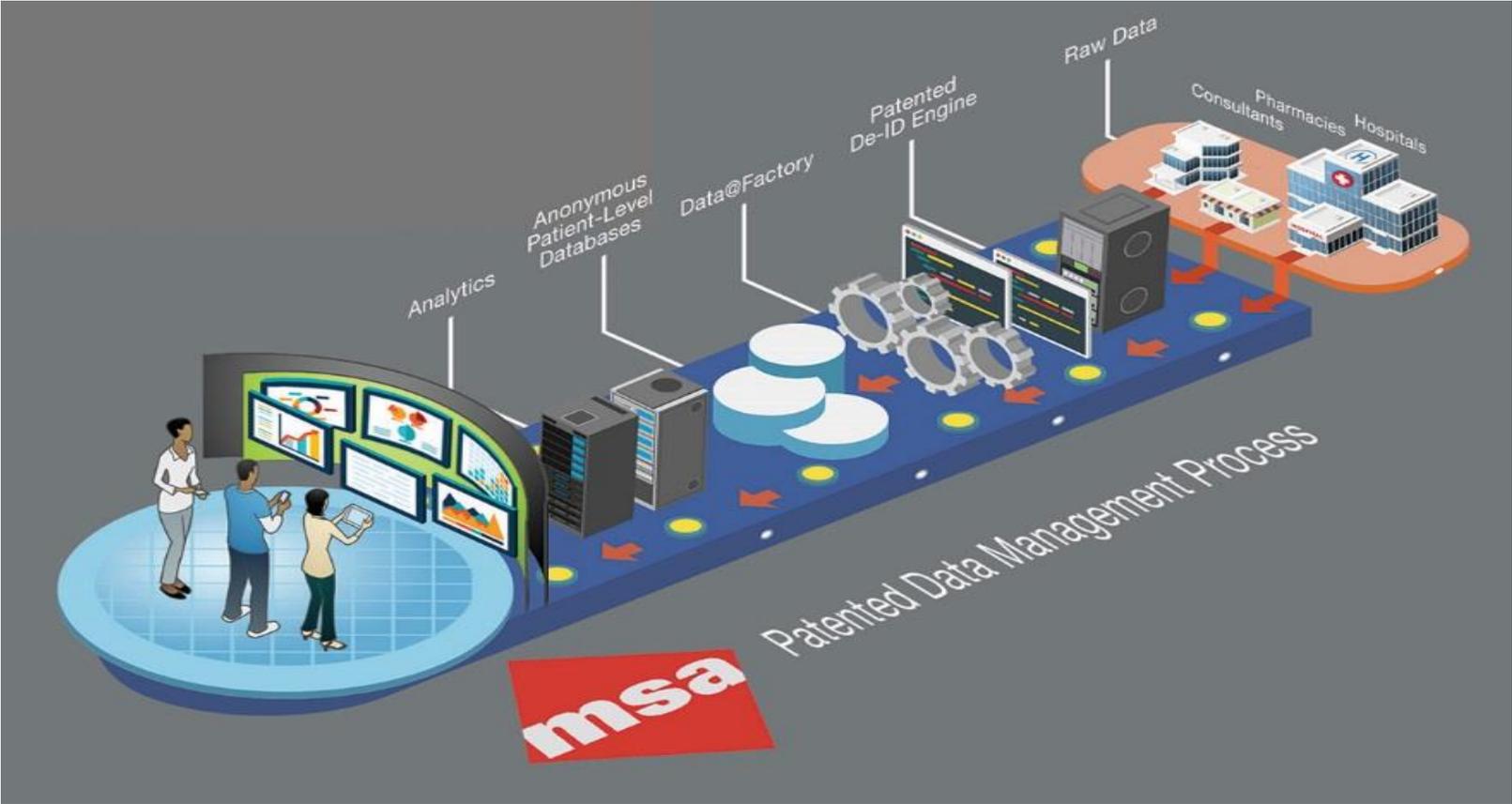
- ◆ Dispensary POS data is matched to multiple healthcare data sources including lab test results, Electronic Medical Records, Medical Claims, Hospital Chargemaster and other sources to give a 360-degree view of the dispensary patient or consumer while protecting the privacy of the individual.

For what purpose?

- ◆ MSA can examine the correlation between reduced prescription use and cannabis consumption across consumers' purchasing journeys, providing actionable insights for operators and real-world data to support education efforts in the cannabis industry.

Overview MSA Life Sciences – Data@Factory™

HIPAA Compliant, HITRUST certified Data Management Platform



Cannabis Data Sets: Linking Real World Data Through MSA

- ◆ **National consumer purchase panel data**
 - ◆ Approximately **330,000 lives**
- ◆ **Lab test results** (e.g., HbA1C and cholesterol)
 - ◆ Approximately **200 million lives**
- ◆ **Electronic health records** (e.g., Opioid, GLP-1 Medications)
 - ◆ Approximately **30 million lives**
- ◆ **Cannabis POS data**
 - ◆ Approximately **30 dispensaries and growing**
- ◆ **Medical claims**
 - ◆ Approximately **40 million lives**
- ◆ **Digital behavior data**
 - ◆ Approximately **120,000 lives**
- ◆ **Client first party data**



Real-World Data Insights



With MSA's patented and nonreversible process to remove identifiable healthcare data in partnership with state-legal cannabis operators we can accomplish the following together:

- Gain insights into how your products and brands are addressing consumers' specific health and wellness needs.
- Further cannabis research, which currently lacks the same depth and rigor as the pharmaceutical industry.
- Reach new segments of the health and wellness market through comprehensive research and education.
- Demonstrate your commitment to the cannabis industry by fostering research and education in the industry.

Cannabis Operators Evaluation Data Samples

% of Dollars Spend on Cannabis Products				
Demographic Group	Capsule	Flower	Tablet	Vape - Cartridge
Female, Under 45	4.4%	8.8%	12.4%	53.4%
Male, Under 45	3.1%	12.4%	8.1%	50.0%
Female, 45 - 64	8.9%	3.9%	20.2%	39.3%
Male, 45 - 64	5.9%	7.8%	16.4%	39.5%
Female, 65 and older	13.9%	1.4%	37.3%	15.8%
Male, 65 and older	11.3%	3.7%	28.3%	27.9%

Evaluation includes:

- Understanding your consumers through
 - Product form and type usage in each demographic.
 - Brand usage in each demographic.

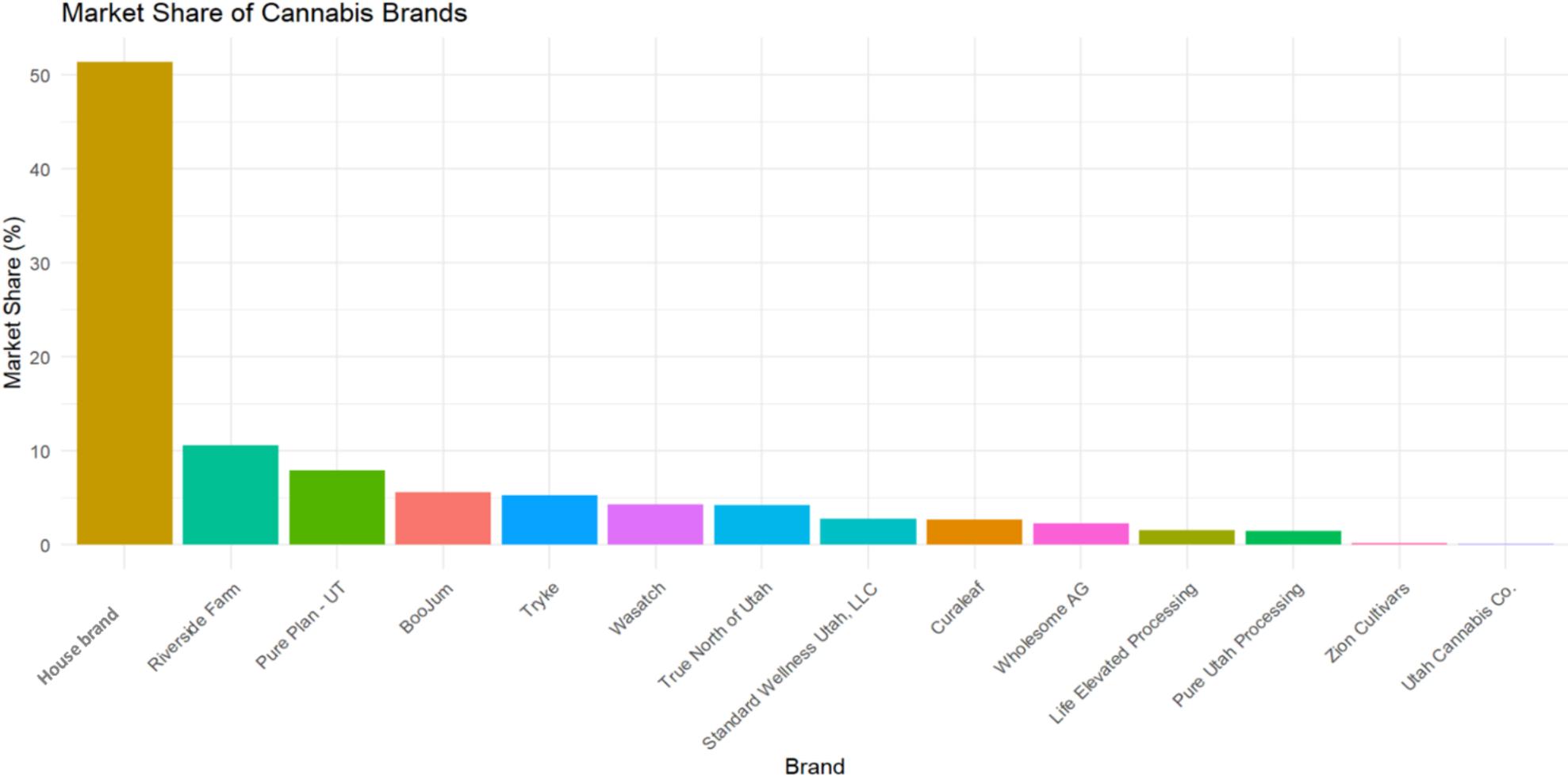
Evaluation includes:

Forecast sales of new products with trial and repeat.

- Every dispensary tracks its top selling products and gain deeper insights into which items your customers really like, by looking at MSA's trial and repeat data.

Manufacturer/Product	Total Sales	Trial Sales	Repeat Sales	Repeat %
Cosmic Connections				
Galaxy Swirl Cartridge	\$150.00	\$90.00	\$60.00	40.00%
Great Unknown Cartridge	\$120.00	\$100.00	\$20.00	16.67%
Groovy Nebula Cartridge	\$120.00	\$105.00	\$15.00	12.50%
Dr. Jones Medicinals				
Dr. J's Pills (20 pack)	\$240.00	\$100.00	\$140.00	58.33%
Dr. J's Pills (10 pack)	\$200.00	\$140.00	\$60.00	30.00%
Dr. J's Pills (5 pack)	\$180.00	\$150.00	\$30.00	16.67%
Sweet Serenity				
Dark Chocolate Bites	\$240.00	\$110.00	\$130.00	54.17%
Dark Chocolate Bar	\$210.00	\$110.00	\$100.00	47.62%
Hot Chocolate Powder	\$200.00	\$135.00	\$65.00	32.50%

Market Share of Cannabis Brands



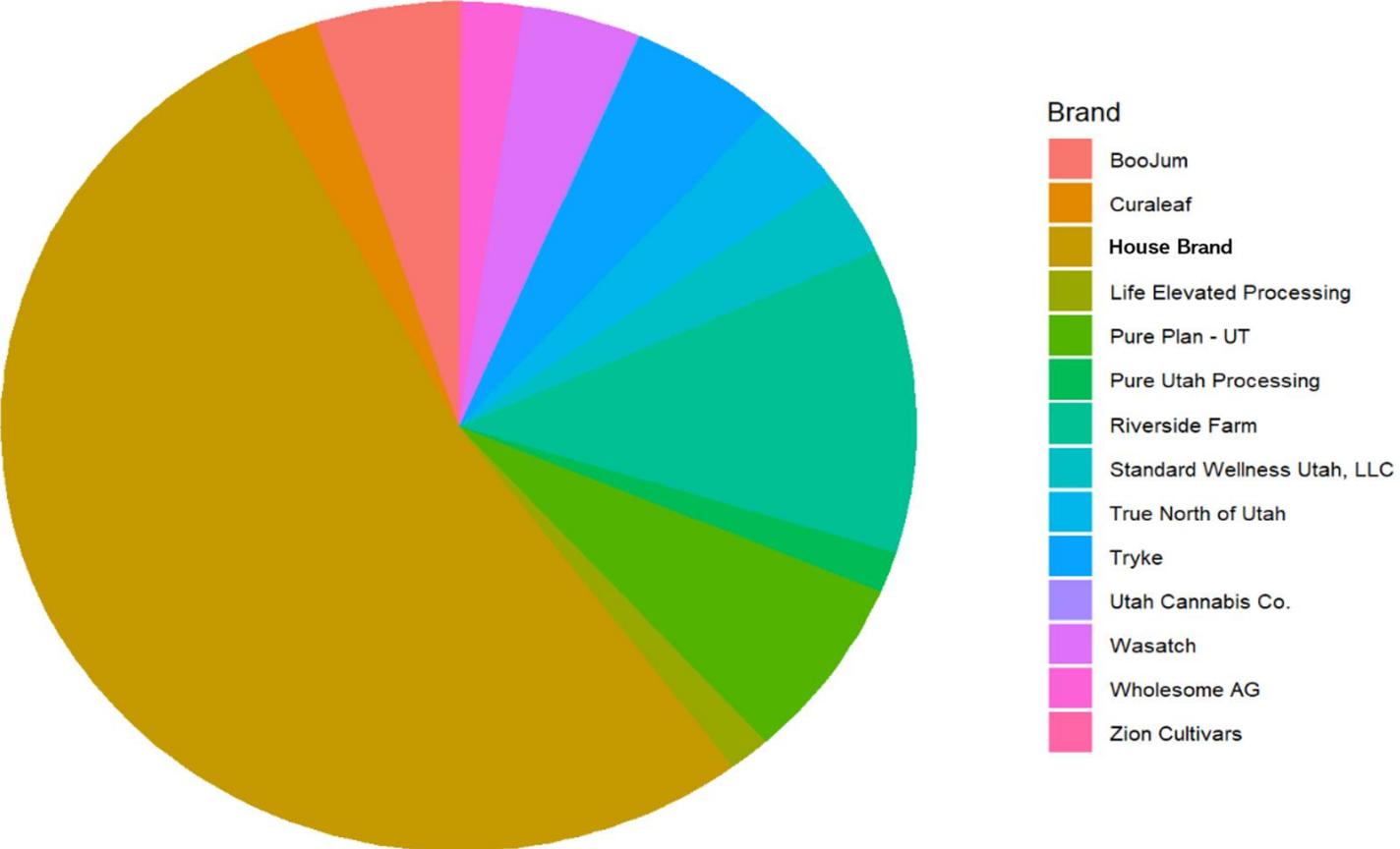
Market Share of Cannabis Brands in all Consumers (Pain Segment)

BRAND	Total Sales Pain (\$)	Market Share (%)
BooJum	38,688	5.05
Curaleaf	20,320	2.7
House Brand	401,904	52.5
Life Elevated Processing	11,351	1.5
Pure Plan - UT	53,223	7
Pure Utah Processing	11,927	1.6
Riverside Farm	88,565	11.6
Standard Wellness Utah, LLC	23,677	3.1
True North of Utah	26,309	3.4
Tryke	40,004	5.2
Utah Cannabis Co.	713	0.1
Wasatch	31,466	4.1
Wholesome AG	16,116	2.1
Zion Cultivars	1,228	0.2
Total	\$765,490	100%

Note: The Total Sales shown in the table represent sales of cannabis product brands only, excluding accessories. The Total Sales overall was **\$4,403,058**.

Market Share by Brand in Pain Segment

Market Share by Brand in Pain Segment



Fair Share Index and Potential Gain in Consumers with Chronic Pain

- *How are brands performing in correlation with prescription reduction?*
- *Understand how your consumers are using products with specific ailments.*
- *MSA provides evaluation with real-world data evaluation through MSA's HIPAA compliant de-identification.*

BRAND	FAIR SHARE INDEX	POTENTIAL GAIN (\$)
BooJum	0.90	9,905
Curaleaf	1	2,652
Dragon Fly Greenhouse	1.02	44,853
Life Elevated Processing	0.97	1,867
Pure Plan - UT	0.88	15,539
Pure Utah Processing	1.06	826
Riverside Farm	1.1	2,981
Standard Wellness Utah, LLC	1.13	0
True North of Utah	0.82	10,039
Tryke	1	5,213
Utah Cannabis Co.	1.05	59
Wasatch	0.96	5,687
Wholesome AG	0.94	3,350
Zion Cultivars	0.87	370

Overview of Benefits



- ◆ Increase customer loyalty: use outcomes to improve recommendations for new patrons.
- ◆ Product development tailored to your customers and their needs, increasing sales and customer retention.
- ◆ The ability to understand every demographic of your customers in depth.
- ◆ Improve success of new product development using real world data to tailor products for specific uses.
- ◆ Target market understanding.
- ◆ Maximize return from investment in outreach programs.
- ◆ Forecast sales of new products with trial and repeat models to focus on new products with significant growth potential.

About Management Science Associates, Inc.

Since 1963, Management Science Associates, Inc. has partnered with customers to identify areas in which innovative analytics and applications of data and systems drive growth and create efficiency. Combining its expertise with the tools of information management, analytics, data management, systems engineering and support, MSA develops, integrates, implements, and maintains solutions, products and services for a number of industries. Since 2013, MSA has been developing extensions of its success in CPG, healthcare, media, metals, and information processing into the high growth cannabis industry.

MSA partners with cannabis operators across the US to analyze point-of-sales data on a demographic level through their HIPAA compliant, de-identification software. By providing real-world data, operators understand their customers and reveal valuable company insights; preferred product forms, favored brands, retention rates and more.