

NetNoggin® Presents:
Exploratory Analysis

Healthcare Provider Needs in the NASH Market*



*Nonalcoholic Steatohepatitis (NASH) including Nonalcoholic Fatty Liver (NAFL)



TABLE OF CONTENTS

Below is the table of contents. The objective of this exploratory analysis is to understand healthcare provider (HCP) needs related to diagnosis, treatment, and management of NASH (including NAFL) in order to provide direction in market development.

Objectives for the Exploratory Analysis by Section



01.



METHODOLOGY

Understand how NetNoggin® uses netnographic data to help answer questions in the market



02.



CONVERSATION VOLUMES

Learn which HCPs are posting about NASH (including NAFL) market needs and on which channels the community is posting



03.



INSIGHTS & FINDINGS

Gain insights from conversations online to understand HCP needs in the NASH (including NAFL) market



04.



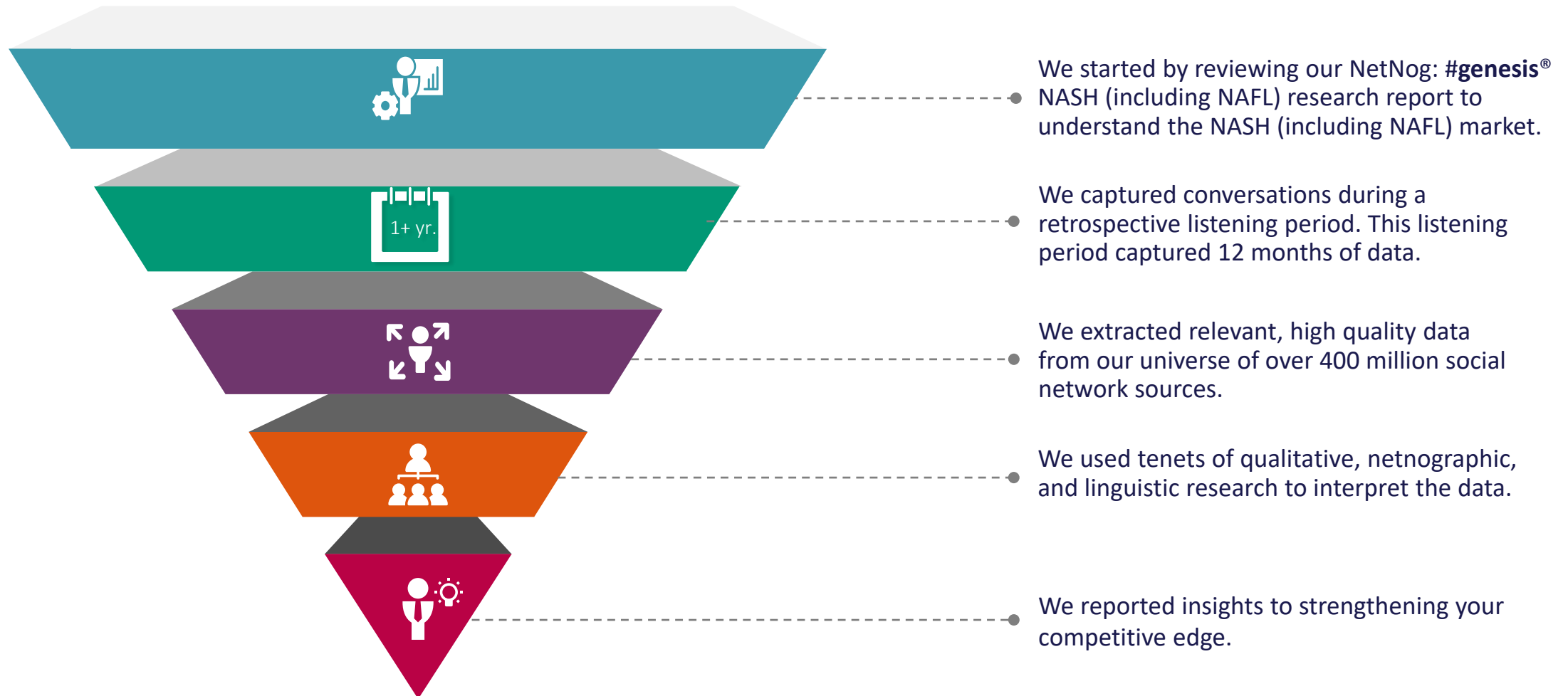
SNEAK PEEK

Get a sneak peak into our NetNog: #genesis® NASH (including NAFL) research report



NetNoggin® completed this exploratory analysis by capturing 12 months of data regarding HCP needs in the NASH (including NAFL) market. NetNoggin® specializes in netnographic* research, which contains insights into HCP and patient perspectives of the market.

NetNoggin® Methodology





* Netnography = immersion into social interactions made via digital communication. Provides a real world view of consumers including their lexicon.







Below is a list of color codes to indicate the author-type of quotes and icons to indicate the source of quotes.

Color Codes and Icons Used in this Research

Quote Color Codes

-  = said by a gastroenterologist
-  = said by a general practitioner
-  = said by a pediatrician
-  = said by a bariatric surgeon
-  = said by a cardiologist
-  = said by a hepatologist
-  = said by a liver specialist
-  = said by another healthcare provider
-  = said by a community member (including advocates, companies, or unspecified participants)

Social Source Icons

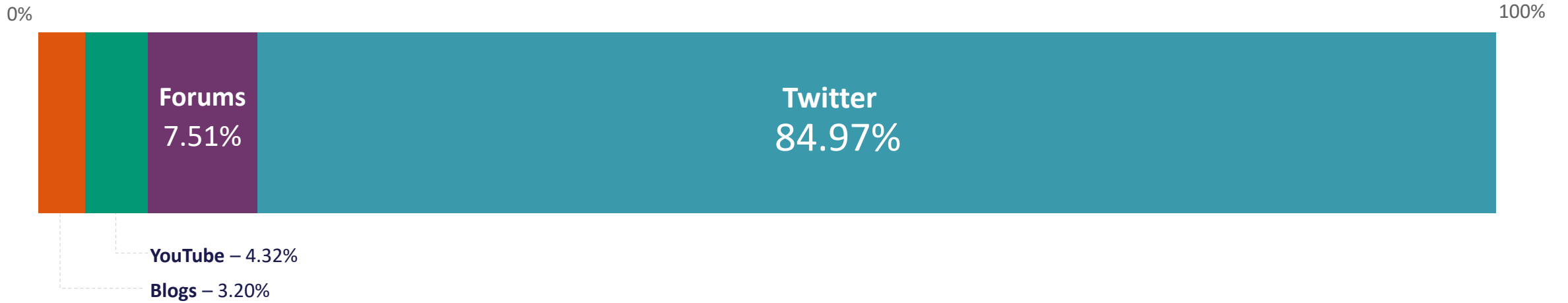
-  = Twitter
-  = Forums
-  = Blogs
-  = YouTube



CONVERSATION VOLUMES

NetNoggin® captured thousands of conversations regarding HCP needs in the NASH (including NAFL) market from November 1st 2018 to October 26th 2019. Twitter led the majority of the market volume, followed by Forums and YouTube.

Percentage of Conversations by Channel (November 1, 2018 – October 26, 2019)



FURTHER EXPLANATION

Conversation volumes regarding HCP needs in the NASH (including NAFL) market are often sparked by new research, articles, and/or pharmaceutical development news conversations. In addition to HCPs, some organizations, foundations, and advocates post about HCP needs.

Who is Posting?

HCPs

Organizations & Foundations

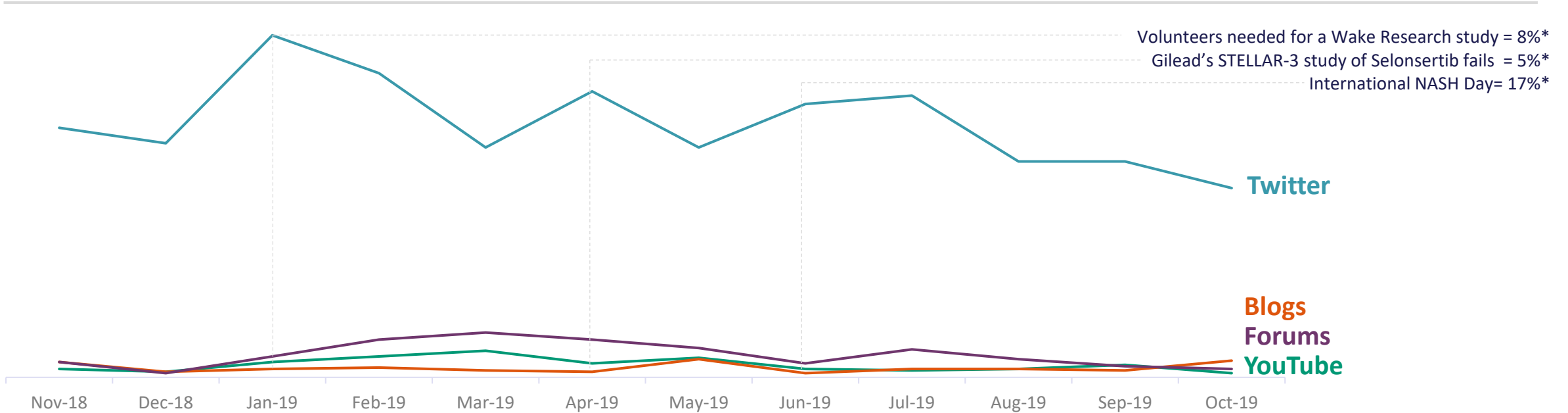
Advocates



CONVERSATION VOLUMES

Conversation volume spiked in January 2019, April 2019, and June 2019 due to promotions for a Wake Research study, Gilead’s failed clinical trial, and International NASH day, respectively.

Total Conversations by Channel (November 1, 2018 – October 26, 2019)



FURTHER EXPLANATION

Gastroenterologists and general practitioners most often posted their needs on social channels throughout the listening period. HCP conversations were often sparked by new research, conferences, new drug development, and advocacy in the community.

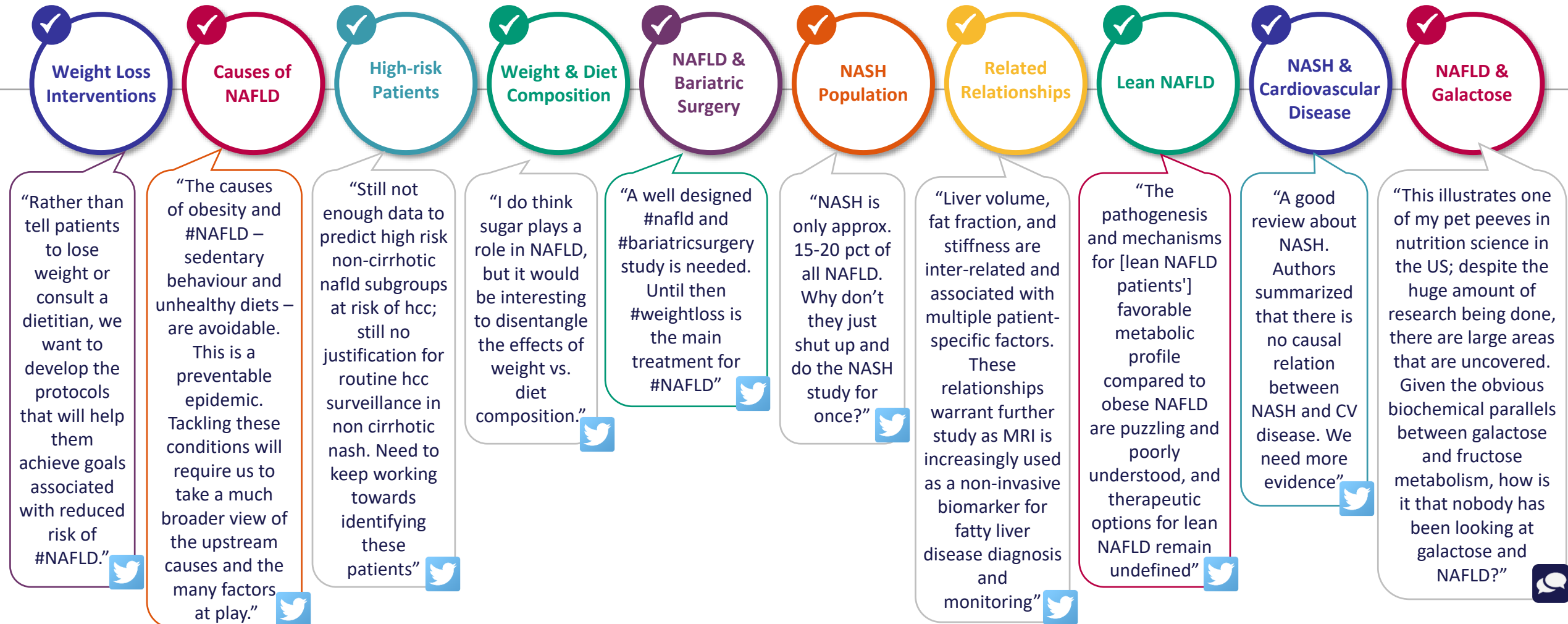
Most Active HCPs Online

- Gastroenterologist
- General Practitioner
- Pediatrician

*Percentage is for total volume (of the noted topic) for that specific month

During the listening period, most HCPs mention needing more research on weight loss interventions. Of HCPs who mention other research needs, causes of NAFLD and high-risk patients were prevalent.

HCPs' Requests for More Research on Specific Topics (November 1, 2018 – October 26, 2019)

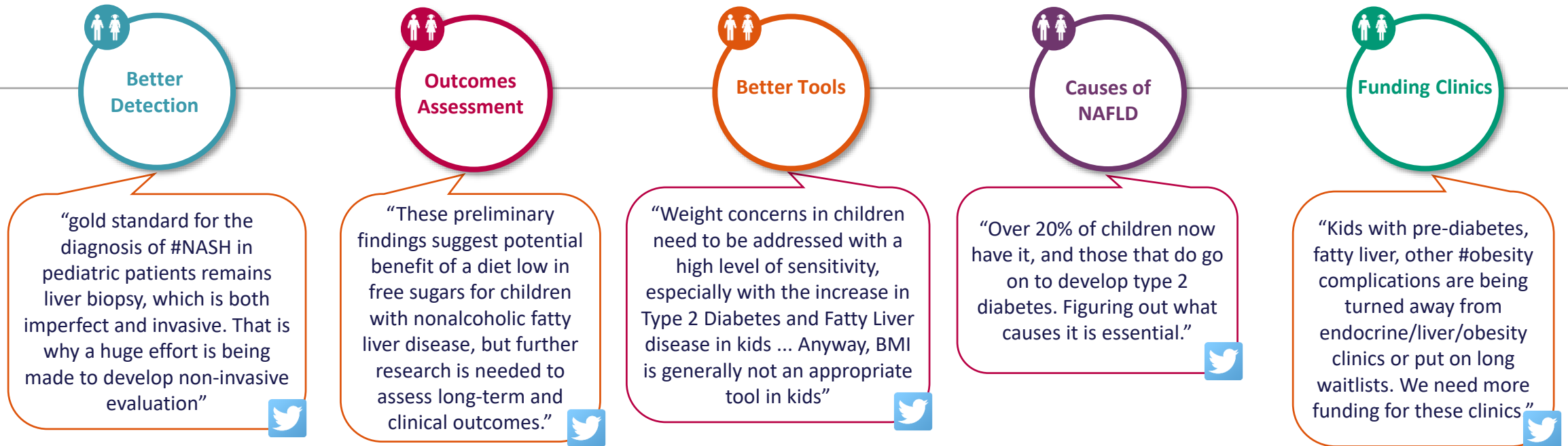




INSIGHTS & FINDINGS

Specific to the pediatric NAFLD population, HCPs mention needing better detection of NASH, research on treatment outcomes, better tools for disease management, research on the causes of NAFLD, and better funding for clinics.

HCPs' Requests for Pediatric NAFLD (November 1, 2018 – October 26, 2019)







Of those HCPs who discuss the need for pharmacotherapies, most mentions suggest patients should be able to cure NAFLD with lifestyle change alone, some patients may need a multi-component approach, and few patients need pharmacotherapies.

HCPs' Beliefs on Treating with Pharmacotherapies


LIFESTYLE MODIFCATION ONLY


"Can you imagine if we can all work together to give people relief - with food instead of another pill?" 

"Bad news for drug companies hoping to cash in on the NAFLD epidemic.... It appears nutritional ketosis is a very effective and drug-free way to treat fatty liver." 


"lifestylechange is the first recommended treatment for diseases such as ... #NAFLD ... Optimize your health. No prescription needed" 

"If I have my way there'll be NO multi-billion dollar bonanza for big-pharma to treat Fatty Liver" 


"Physicians, you will get burn out when you are trying to treat diet related diseases with prescription drugs! I was a burned out physician myself then I lost 94lbs reversed my obesity insulin resistance metabolic syndrome fatty liver with #realfood" 


"There are no pharmaceutical interventions available. Could it be that we don't need one? Could the answer to the problem be..... food?" 

MULTI COMPONENT APPROACH

"bariatric [surgery] is know to reverse this plus many other diseases. Yet Big Pharma looking to exploit with very expensive medications" 

"Weight loss reduces portal HTN and still needs to be a mainstay part of management despite meds coming down the pipeline" 

"We are badly in need of a medical treatment for (#NASH) (#NAFLD)... But #Bariatric surgery works best" 


"Accuracy of U/S negatively impacted by obesity. Diet & exercise counseling is critical but more Rx needed" 


Rx ONLY

"need for drug therapy to meet expected late stage fibrosis Important to halt progression & prevent liver transplants" 

FURTHER EXPLANATION

Some HCPs and advocates note that lifestyle change may be the best treatment for NAFLD; however for some patients, lifestyle change is difficult and a pharmacotherapy is needed as an alternative treatment.

"[Lifestyle change is] the cornerstone for treatment but definitely not easy and hence the magnitude of research in finding a suitable pharmacotherapy for NASH :)" 

"but worth being clear that there is no drug to treat NASH... it's only lifestyle change. We just have not been good at that." 




HCPs mention a large barrier and need in the NAFLD market is being able to identify, diagnosis, and refer patients to the appropriate specialist for treatment.

HCP Needs Regarding Diagnosis & Screening (November 1, 2018 – October 26, 2019)

AT-RISK POPULATION


HCPs mention needing a way to better identify the at-risk populations for NAFLD.

“need studies on detecting if inflammation related, tied to co-existing NAFLD/abd adiposity and/or how do we identify individuals at higher risk. Lipid levels may not explain this.” 

NON-INVASIVE DETECTION


HCPs mention wanting better, non-invasive ways to detect NAFLD, including an alternative to liver biopsy.

“We need a better non-invasive way to detect #NASH #NAFLD in our population of patients with #obesity” 

“We cannot even scratch the surface of risk-stratifying patients by liver biopsy’ ... When facing the vast number of patients thought to have NASH, the need for alternatives to liver biopsy becomes clear.” 

TEAM SYNERGY

Specialists suggest they need partners in the general practitioner community to help diagnose, treat, and manage NAFLD.

“GI needs allies in primary care to help triage #nash based on severity ... RT ... But coming back to primary care, what is one to do? First, identify NASH. Second, refer NASH for detailed assessment and consideration of clinical trials. Third, monitor simple steatosis with annual or bi-annual liver enzymes, and a fibrosis score like NAFLDscore.” 


REFERRAL TOOLS


HCPs describe the need for tools and guidance so PCPs can easily refer patients to specialists.

“Still need better tools for PCP for #NAFLD referral” 

DIAGNOSIS PROTOCOL


HCPs mention needing an easy and established way to make the diagnosis across countries and specialties.

“As a pulmonologist I tell my patients to loose weight, eat healthy and see a GI doc. Is that not enough?” 

“Epidemiology on #NAFLD is interesting, but wonder how they are making diagnosis around the world since we don’t have an easy/established way to make the diagnosis. Also need more granularity since it varies a lot by country.” 















EDUCATED DOCTORS

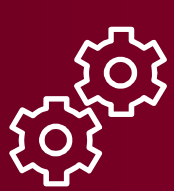
HCPs suggest some HCPs need further education on NAFLD and how to treat NAFLD.

“Your doctor probably told you that, if you have fatty liver, you will likely develop cirrhosis and liver failure and that there is NOTHING you can do to stop it. Is that true?” 

HCPs often mention needing defined treatments, treatment guidance and protocols (e.g. lifestyle change, comorbid conditions, surgery), and/or treatment suggestions from specialists.

HCP Needs Regarding Treatment & Management (November 1, 2018 – October 26, 2019)

-  **DRUGS IN DEVELOPMENT**
HCPs mention wanting updates on new pharmacotherapies in development.
"@eClinicalTrial Just I wanna know about ICPT NASH medication pending approval??" 
-  **SAFETY PROFILE**
HCPs suggest new pharmacotherapies should have an excellent safety profile.
"Treatment will require many months or years, and combo therapy is likely, so this is where the excellent safety profile is key." 
"Unmet medical need does need opening of opportunities but managing safety needs to still remain a focus" 
-  **CHANGING BEHAVIOR**
HCPs mention needing guidance on how to change behavior in patients for treatment.
"I am stunned when patients don't change #behavior when we talk about the need for a #livertransplant as a complication of their #obesity and #fatty liver disease. Fatty liver disease can be reversed, in many situations, with improved dietary intervention." 
-  **LIFESTYLE GOALS**
HCPs discuss the need for protocols to help patients achieve lifestyle goals for treatment.
"Rather than tell patients to lose weight or consult a dietitian, we want to develop the protocols that will help them achieve goals associated with reduced risk of #NAFLD." 
"as #NASH #NAFLD increases in incidence as a cause of liver failure, we need to develop better protocols for treatment." 
-  **COMORBID CONDITIONS**
HCPs mention the need to understand how to manage NASH with many comorbid conditions.
"Management of NASH #patients is complex due to the comorbidities associated." 
-  **MENTAL HEALTH**
HCPs suggest the need for better health behavior interventions that target mental health as well.
"More than a quarter of NAFLD patients have anxiety/depression likely contributing to unhealthy behaviors that exacerbate NASH outcomes. Need to develop health behavior interventions targeting these unhealthy behaviors." 



Of the HCPs who mention the need for education and awareness, most describe the need for a market development shift to accelerate better diagnosis and treatment as an important first step in changing the trajectory of the disease.

HCP Needs Regarding Education & Awareness (November 1, 2018 – October 26, 2019)



“So many people have Fatty Liver Disease and have no idea why. If they don't know what caused it, then they can't fix it. We need to Share the cause and the cure with them”

“We need to do more to raise public awareness of #NAFLD given at least 30% of US adults suffer from this but only 5% are aware they have this”

“It's more pap about what ppl eat, no attention to epigenetic changes from processed food. People want to know what to eat. Paleo, keto, vegan, MCTs. IF, carb tolerance, Nash risk -specific genetic determinants that may influence diet selection.”

“While diabetes-related mortality has been reported to be decreasing due to improved awareness and management, our results highlight the need to better address NAFLD and end-stage liver disease among individuals with diabetes.”

“Agree, focus on health rather than obesity(still mostly defined by BMI), need to empower, not demotivate/demoralise. I also focus on ectopic fat loss, fatty liver, rather than just drop in kgs #19adc ... Messages that are intended to motivate weight loss may be more effective if they focus on self-efficacy rather than fear & blame”

“We need to be a bit more flexible in our terminology for AFLD and #NAFLD,’ said ... MD, of Virginia Health System. Based on research published in @AGA_Gastro”



NetNog: #genesis[®]

NASH (INCLUDING NAFL)

Sneak Peek





NETNOGRAPHIC FINDINGS SNEAK PEEK

Netnographic research is a form of immersive qualitative research that provides an unbiased and unobtrusive view of subjects as they express their experiences and unmet needs. Below are the questions we answer within each section of Netnographic Findings.*

Questions Answered in Netnographic Findings (Part 1 of 2)

Patient Journey

- What does the clinical journey look like?
- What does the patient *progression* journey look like?
- What are the patient-expressed milestones due to treatment success and where do they occur along the patient journey?
- What lexicon do NASH (including NAFL) patients use regarding disease progression?
- What is the timeline of disease progression?
- What are common lexicon themes regarding the patient journey?

Diagnosis Stage

- What is common diagnosis lexicon?
- What are the drivers and barriers to diagnosis?
- What symptoms do patients mention?
- What symptoms drive patients to diagnosis?
- What type or specialty of HCPs diagnose/refer?
- Which tests are used to evaluate the patient at diagnosis?
- What are the different patient types?
- What are the initial, differential, and misdiagnoses?
- What are common comorbid conditions?

Treatment Decisions

- What are the drivers and barriers to treatment?
- What medications do patients mention taking?
- What are common comorbid condition medications that patients take?
- What is common patient lexicon regarding treatment?
- How do patient discuss no treatment?
- Which diets do HCPs recommend?
- What diets do patients mention they are trying or have tried?
- What does an immersive example of a patient's day-to-day treatment look like?
- What are the drivers and barriers to a healthy lifestyle?
- What are the drivers to weight loss surgery?
- What are the pros and cons of weight loss surgery?
- What are the triggers and hesitations to a liver transplant?
- What are the drivers and barriers to liver transplant?
- How do patients discuss treatment success?

HCP Touchpoints

- What type or specialty of HCPs diagnose NASH (including NAFL)?
- What type or specialty of HCPs treat NASH (including NAFL)?
- What type or specialty of HCPs manage the disease?
- What type or specialty of HCPs support the patient on their journey?
- Where do patients interact with HCPs (e.g. office, hospital, clinic)?
- How do patient describe their experiences with HCPs?
- What is common patient lexicon regarding HCPs?

*After Netnographic Findings, NetNoggin® introduces Insights. Insights is our consulting twist on findings from this report. NetNoggin® looks at what should be happening in the market (Market Overview section), versus what patients and caregivers are telling us is happening (Netnographic Findings section) and identifies gaps and unmet needs.



Netnographic research is a form of immersive qualitative research that provides an unbiased and unobtrusive view of subjects as they express their experiences and unmet needs. Below are the questions we answer within each section of Netnographic Findings.*

Questions Answered in Netnographic Findings (Part 2 of 2)

Emotional Journey

- What emotions are experienced by patients along the clinical pathway?
- What is common emotional lexicon used by patients?

Caregiver Touchpoints

- Do patients mention caregivers or loved ones who are involved in their journey? If so, what does the relationship look like?
- What are the caregiver touchpoints along the patient journey?
- How do patients characterize supportive caregivers/loved ones?
- How do patients characterize unsupportive caregivers/loved ones?

Described Outcomes

- What are patient described outcomes?
- What does quality of life look like for a patient with successful treatment over time?
- What does quality of life look like for a patient without successful treatment over time?
- What does quality of life look like for a patient with a liver transplant?

Psychographics

- What are common attitudes and beliefs regarding contributing factors to disease progression?
- What are general attitudes and beliefs regarding NASH (including NAFL)?
- What are the most common controversial topics regarding NASH (including NAFL)?

Shared Resources/Tech

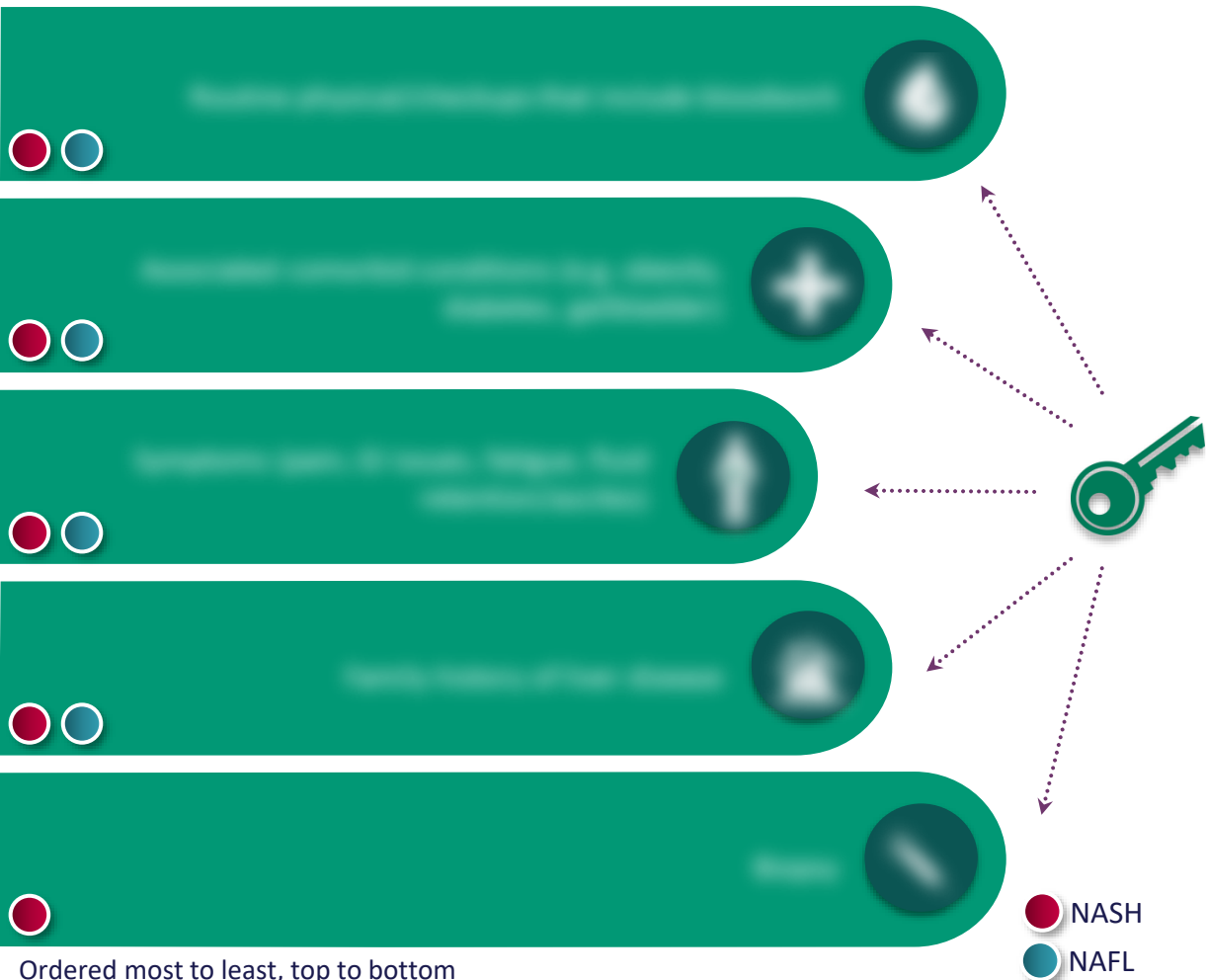
- Who shares NASH (including NAFL) resources?
- What media is being shared by patients and HCPs?
- What educational materials are the NASH (including NAFL) community sharing?
- What technologies are HCPs sharing?
- What technologies are patients sharing?

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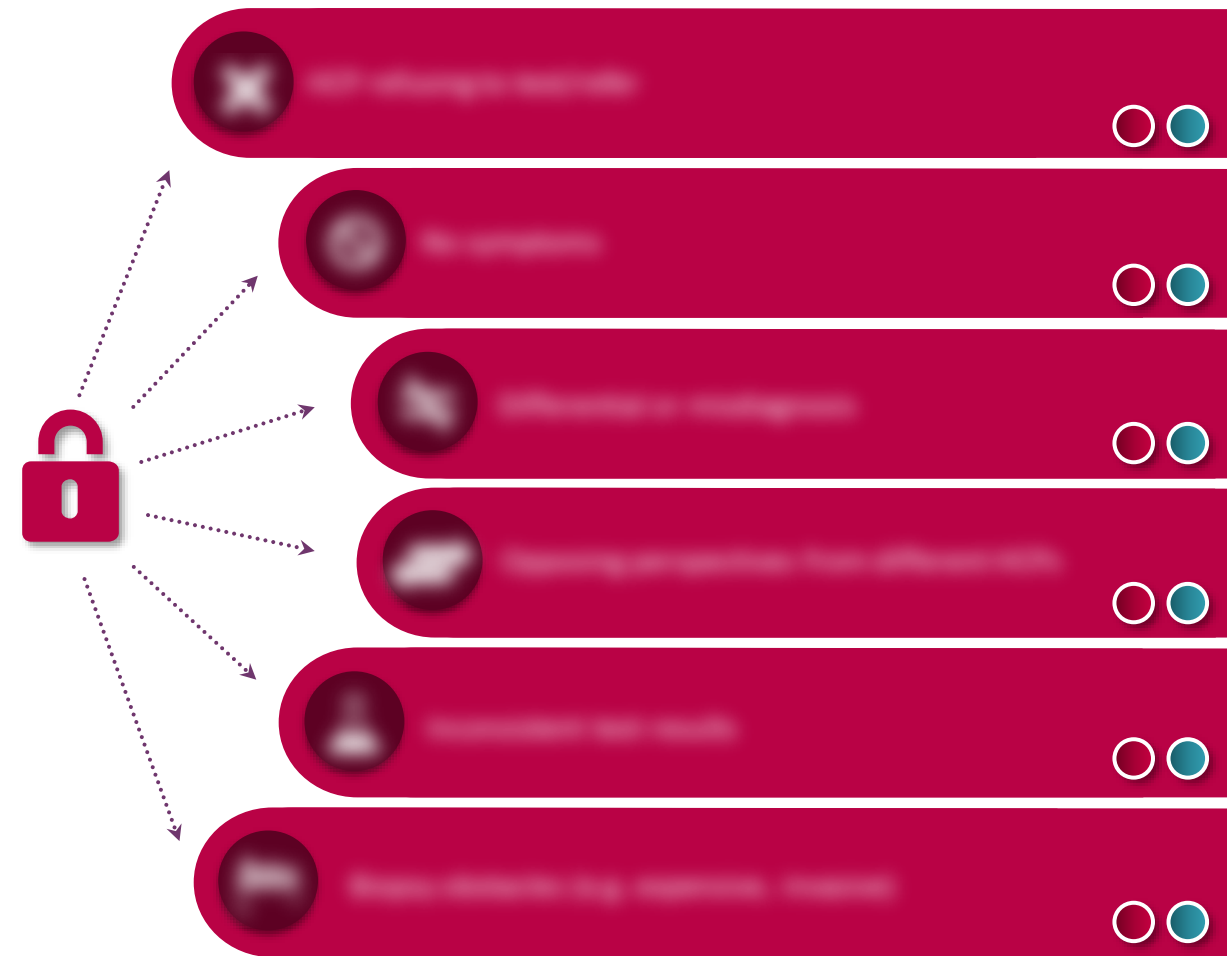
NetNoggin® provides 192 pages of easily digestible NASH (including NAFL)-focused content that can be read all at once, or read a little at a time. Below is an example of our page layout for drivers and barriers to diagnosis.

Drivers to Diagnosis



Ordered most to least, top to bottom

Barriers to Diagnosis



CONTACT US

Are you looking for a more customized research? Contact us! We have other NetNoggin® products to help you develop and market your product for a successful launch.



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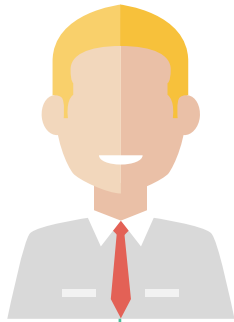
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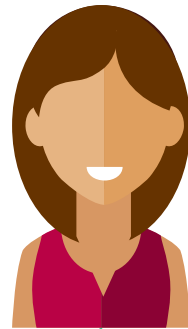
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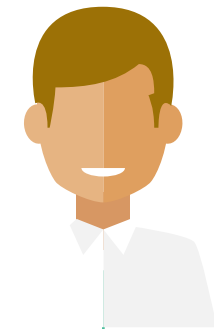
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