# Hyperhidrosis Awareness and Treatment in Pediatric Sufferers: Survey Results from a Population of >500 Children and Adolescents (Ages 6-18)

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# **PURPOSE**

- Primary focal hyperhidrosis is characterized by excessive and uncontrollable sweating beyond what is necessary for thermal regulation; it affects an estimated 4.8% of the total U.S. population and approximately 2% of those under the age of 181
- The condition is associated with quality of life burden; an online survey in the U.S. showed that ~17% of teens experienced excessive sweating, and nearly 75% reported their symptoms led to moderate or major daily impairment<sup>2</sup>
- Though onset typically occurs during childhood/ adolescence, hyperhidrosis is underdiagnosed and undertreated in pediatric patients; further, the impact of the disease in this population is not well characterized<sup>3</sup>
- Together with the International Hyperhidrosis Society (IHhS), this author team is engaged in a collaborative effort to characterize the experience of pediatric hyperhidrosis sufferers
- A quantitative survey was designed based on findings from previously completed qualitative research<sup>4</sup> to better understand the experience of pediatric (children and adolescent) sufferers of hyperhidrosis, a population that has not been adequately studied to date
- Here, we report key findings of the quantitative phase that evaluated the extent of awareness of hyperhidrosis and treatments amongst pediatric sufferers

# **KEY RESULTS**

- Most participants (68%) reported having heard of the term hyperhidrosis; 44% (239/539) of participants were recruited through the IHhS and were therefore more likely to be well informed on hyperhidrosis
- A vast majority consulted a health care professional regarding excessive sweating, though less than half received a diagnosis (Figure 1); it took an average of 2 years from the time participants noticed the onset of symptoms to the time a diagnosis was made
- Moreover, close to half of those who saw a dermatologist (45%), pediatrician (57%), or family practitioner (53%) reported that the discussion ended with the health care practitioner advising that excessive sweating was considered normal or with a plan to reassess symptoms at a future visit (**Figure 2**)

Figure 1. Less than Half of Pediatric Sufferers Received a Diagnosis

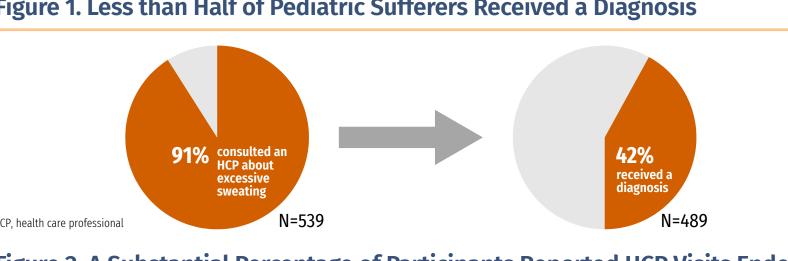
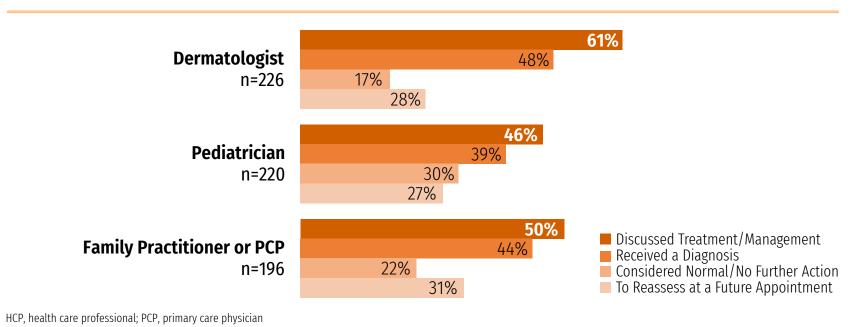


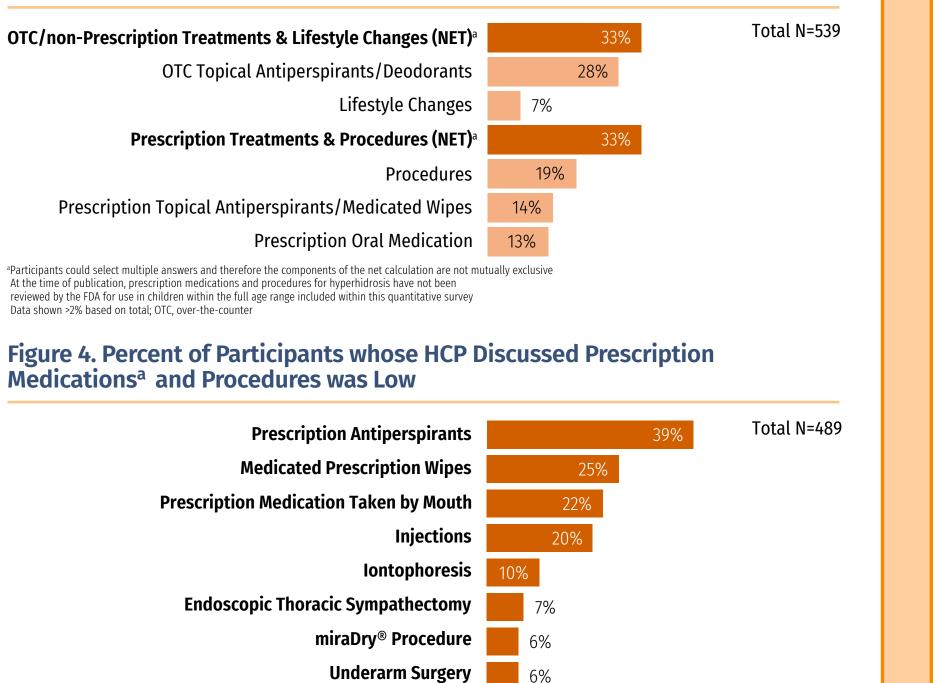
Figure 2. A Substantial Percentage of Participants Reported HCP Visits Ended with No Action Being Required or With a Plan to Reassess Symptoms in the **Future** 



## • Awareness of therapeutic options for excessive sweating was low amongst survey participants, as only 33% were aware of over-the-counter treatments and lifestyle changes, and 33% were aware of prescription treatments and procedures (Figure 3)

 Discussion rates of prescription medications and procedures used to treat hyperhidrosis were low during consultations with health care professionals (Figure 4)

Figure 3. Participant Awareness of Treatments for Excessive Sweating was Low



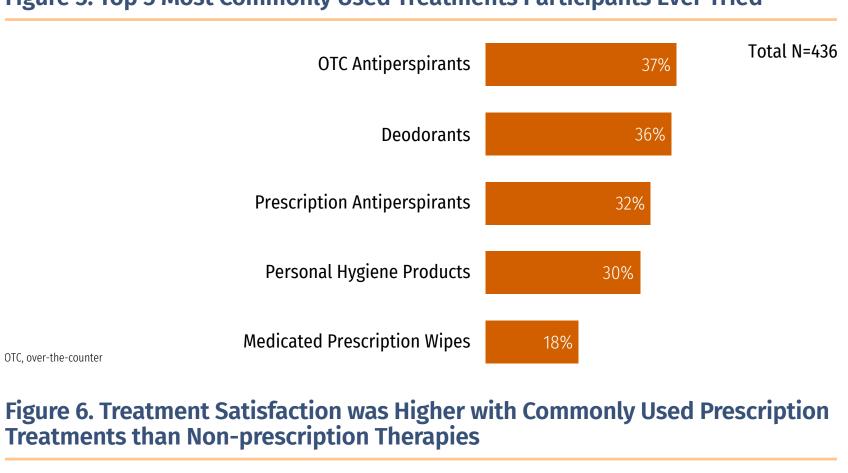
Participants could select multiple answers and therefore percentages may total more than 100 percen

At the time of publication, prescription medications and procedures for hyperhidrosis have not been reviewed by the FDA for use in children within the full age range included within this quantitative survey

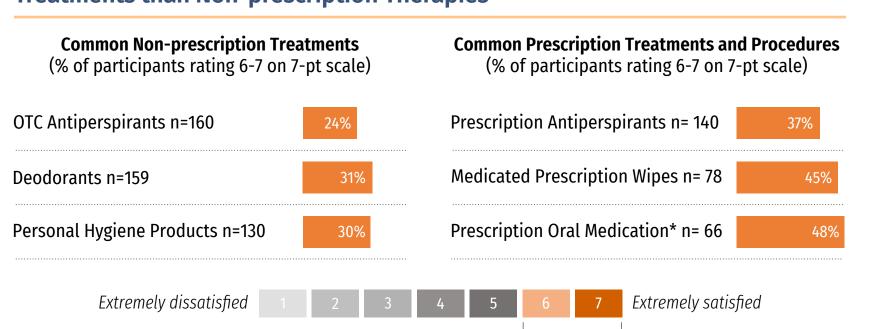
# Over-the-counter antiperspirants, deodorants, and prescription antiperspirants were the most common treatments participants had ever tried to manage symptoms (**Figure 5**)

• Participants reported higher treatment satisfaction with commonly used prescription treatments than with non-prescription therapies (Figure 6)

Figure 5. Top 5 Most Commonly Used Treatments Participants Ever Tried



**Treatments than Non-prescription Therapies** 



Top 2 box

# CONCLUSIONS

- Primary hyperhidrosis has previously been thought to be undertreated and underdiagnosed due to low awareness of the disease amongst sufferers
- In the pediatric population surveyed, most were aware of hyperhidrosis and consulted health care professionals about their symptoms. Despite this, less than half received a diagnosis, and awareness of treatments for hyperhidrosis was low
- Interpretation of findings should account for the inclusion of some participants who were recruited through the IHhS and therefore more likely to be better educated on the condition compared with the general public
- These observations underscore the need to diagnose and provide adequate treatment to children and adolescents living with hyperhidrosis as soon as symptoms present to avoid unnecessary burden
- Findings reported here provide valuable insights into the unmet needs and experiences of pediatric sufferers of primary hyperhidrosis, a population that is currently understudied

#### **REFERENCES**

1. Doolittle J, et al. Arch Dermatol Res. 2016;308(10):743-749

2. Hebert A, et al. Late-breaker oral presentation at the 75th Annual Meeting of the American

3. Shalaby M, et al. Ann Pediatr Surg. 2015;11:169-172.

4. Rice et al. Poster presented at the 2020 Virtual Fall Clinical Dermatology Conference; 2020.

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## **METHODS**

#### **Study Design & Participants**

- The 40-minute online survey was informed by earlier qualitative interview and focus group data in a similar population and was approved by an institutional review board
- Participants were recruited through a third-party market research panel and the IHhS, and targeted screening questions were used to identify excessive sweating consistent with
- For inclusion in the survey, participants were required to have experienced:
- Sweating most of the time, or once/twice a week over the past 6 months
- Sweating while awake, or awake and asleep
- Moderate or major impairment due to sweating
- Bilateral sweating

- Survey topics covered participant demographics and symptom characteristics, quality of life burden, treatment profiles, and disease awareness
- Responses were collected for 539 children and adolescents aged 6-18 years (Grades 1-3, n=126; Grades 4-5, n=124; Grades 6-8, n=142, Grades 9-12, n=147), with caregivers required to provide responses for those aged 6-11 years with the child present (questions were catered to either the child or the caregiver, depending on who the respondent was)
- The average age of symptom onset was 8 years; approximately half of respondents were male and resided in urban areas, and most had insurance through a caregiver employer (**Table 1**)

## **Study Measures**

• Treatment satisfaction was determined by asking participants to rate their satisfaction on a 7-point scale (1 = extremely dissatisfied; 7 = extremely satisfied)

## **SUPPORTIVE RESULTS**

### **Table 1. Participant Characteristics**

Male (%) Mean Age of Onset (years)		49% 8			
Grades	Grades 1-3	23%	Insurance Status	Through Employer	68%
	Grades 4-5	23%		Children's Health Insurance Program	13%
	Grades 6-8	26%		Medicaid	12%
	Grades 9-12	27%		Other	7%
Residential Area	Urban	48%	Severity	Mild	16%
	Suburban	44%		Moderate	40%
	Rural	8%		Severe	44%

\*Off-label; OTC, over-the-counter

• Nearly all survey respondents (93%) sought information on excessive sweating and were most interested in how to manage the condition and what therapies are available (Figure 7)

Figure 7. Information About Excessive Sweating Participants Most Like To Receive (N=539)

