

# Health Insurance Literacy and Profile Experience of Persons and Families Impacted by Fibrodysplasia Ossificans Progressiva

M. Davis<sup>1</sup>, S. Kile<sup>1</sup>, H. Newport<sup>1</sup>, P. Engel<sup>2</sup>, A. Letcher<sup>2</sup>, V. Vachon<sup>3</sup>, S. Jackson<sup>2</sup>

<sup>1</sup>International FOP Association, USA; <sup>2</sup>Engage Health, Inc., USA; <sup>3</sup>Principal Medvantage Writing, LLC, USA

## INTRODUCTION

Fibrodysplasia Ossificans Progressiva (FOP) is an ultra-rare, progressive, and permanently disabling disorder of extraskeletal ossification. FOP is characterized by episodic flare-ups and irreversible heterotopic ossification in muscles, tendons, and ligaments, which often results in a permanent loss of mobility, decreased quality of life, and a shortened lifespan.

## AIM

The aim of this study was to determine the health insurance profile, health insurance literacy, current medical and dental care, and burdens of access in persons impacted by FOP residing in the US. An analysis of health insurance profile and health insurance literacy is presented here.

## METHODS

### Study Design

This mixed methods non-interventional study was conducted between September 2024 and March 2025 with individuals diagnosed with FOP and their caregivers.

- Information about the study was shared with affected individuals known by the IFOPA and affected individuals who had opted into the EnCompass® database.<sup>1</sup>
- After signing informed consent and providing documentation or attestation of disease, subjects filled out a survey and elected to participate in a follow-up 1-hour telephone interview.

### Measures

- To measure health insurance literacy, participants were administered the Assessing Americans' Familiarity with Health Insurance Terms and Concepts questionnaire, which was previously administered to the general population by Hammel and colleagues.<sup>2</sup>
- The percent who answered each question correctly was captured and compared to those in the general population.<sup>2</sup>
- Questions were added which addressed issues encountered with contemporary rare disease therapies. These questions were developed independently with input from affected individuals and disease experts.
- Participants were also asked questions which evaluated their health insurance literacy and to self-rate their abilities to seek insurance information, their document literacy, and their cognitive abilities to apply insurance knowledge.

## RESULTS

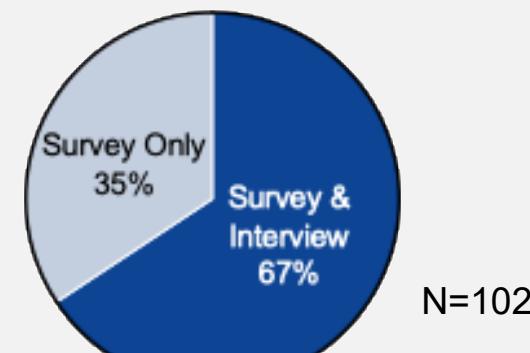
### Participants

- 102 participants from 34 states completed the survey, representing 46% of the known US patient population
- Most participants were adults managing their own insurance or parents/caregivers of person diagnosed with FOP and were managing insurance (80% of these participants represented a minor)

Table 1. Participant Demographics

Study Participants N=102	
<b>Sex, n (%)</b>	
Male	45 (44)
Female	57 (56)
<b>Age, mean (range)</b>	
	27.4 (2-66)
<b>Ethnicity, n (%)</b>	
White	80 (78)
Asian	8 (8)
Black/African American	6 (6)
Hispanic/Latino	6 (6)
American Indian/ Alaska Native	1 (1)
No answer	1 (1)
<b>Payer type, n (%)</b>	
Government only	42 (41)
Private only	39 (38)
Private + government	19 (19)
Uninsured	2 (2)
<b>Insurance Management</b>	
Self, FOP 18+, Manages insurance	46 (45%)
Self, FOP 18+, Does not manage insurance	11 (11%)
FOP Guardian, Manages insurance	45 (44%)

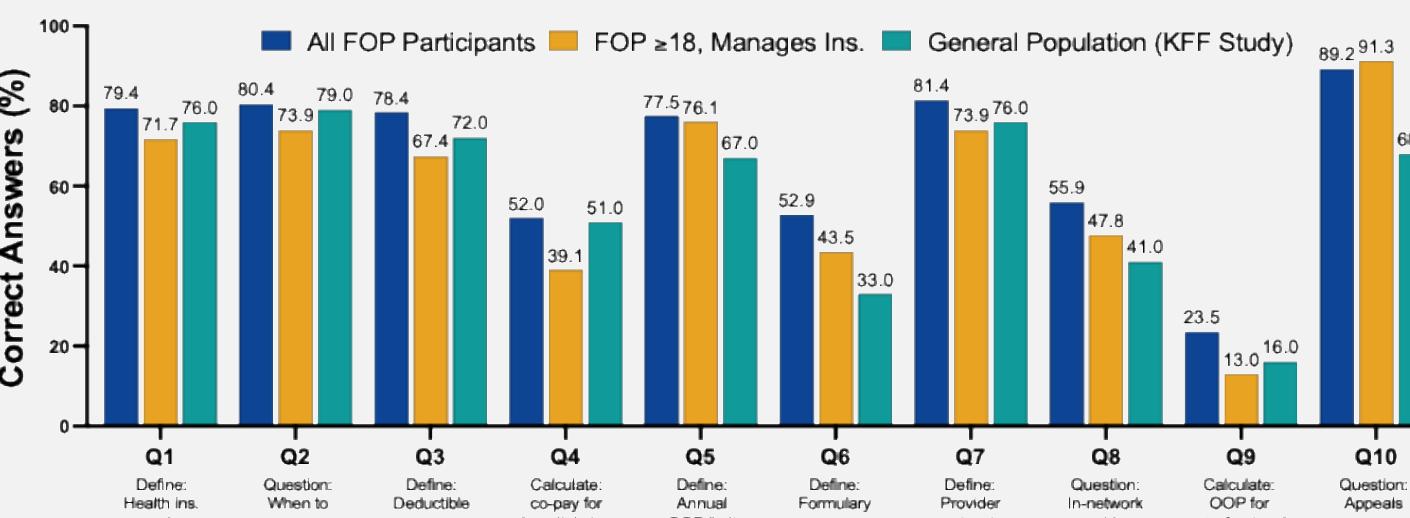
Figure 1. Data Sources



### Health Insurance Literacy

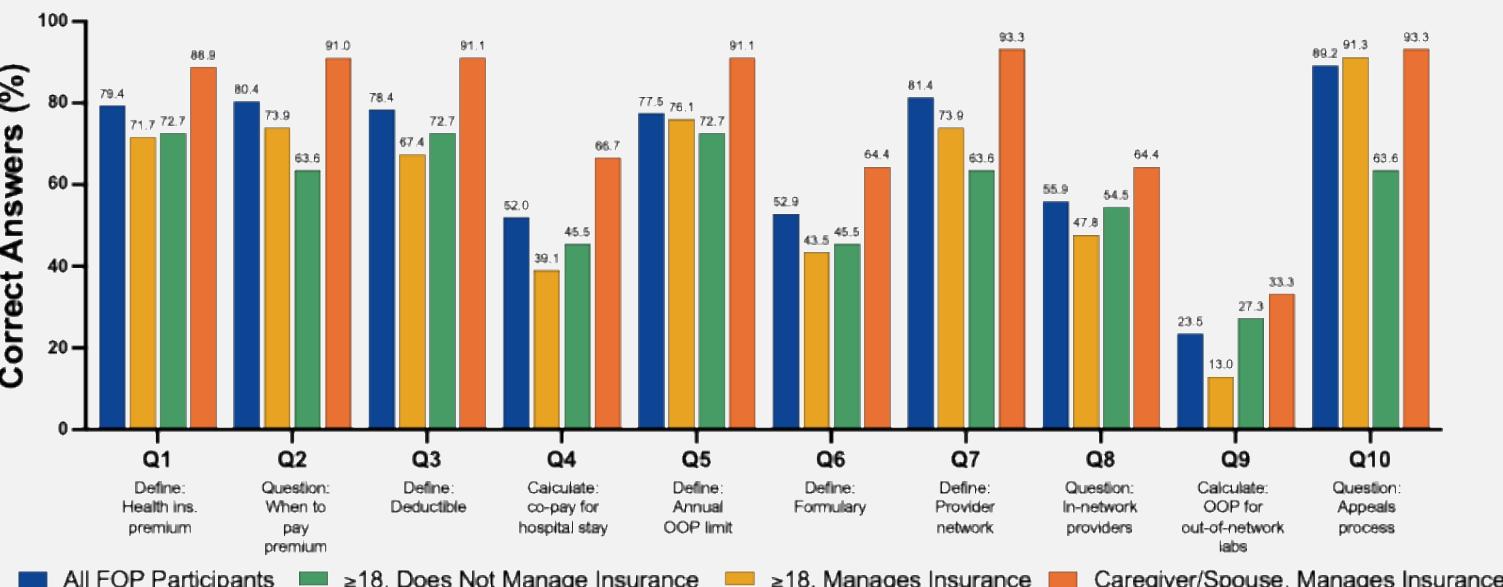
- The FOP study population scored better than the general population<sup>2</sup> in understanding and navigating health insurance, particularly when defining terminology. Both groups scored lower on questions related to pragmatic issues such as calculation of expenses.

Figure 2. Percent Correct Responses, FOP (n=102) vs. General Population (n=1,292)<sup>2</sup>



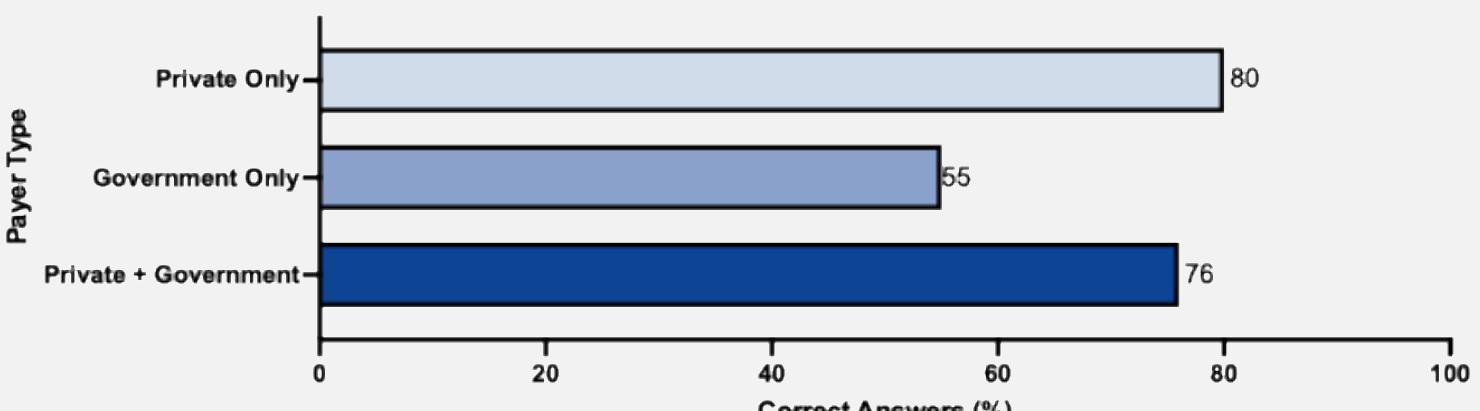
- Participants who managed insurance for an affected child had the highest scores, followed by affected adults who managed their own insurance.

Figure 3. Health Insurance Literacy by FOP Group



- Participants with only government coverage answered 55% of questions correctly vs. 80% of participants with private coverage.

Figure 4. Health Insurance Literacy, Payer Type



## CONCLUSIONS

This study provides an understanding of the health insurance profile and health insurance literacy of individuals affected by FOP in the US. Information gathered provides pragmatic insights that will help guide education and support programs.

## REFERENCES AND FUNDING

1. "Encompass®." Engage Health, 2019, [www.engagehealth.com/encompass/](http://www.engagehealth.com/encompass/).
2. Norton M, Hamel L, Brodie M. Assessing Americans' Familiarity with Health Insurance Terms and Concepts. KFF. Published November 11, 2014. Accessed August 18, 2025. <https://www.kff.org/affordable-care-act/poll-finding/assessing-americans-familiarity-with-health-insurance-terms-and-concepts/>

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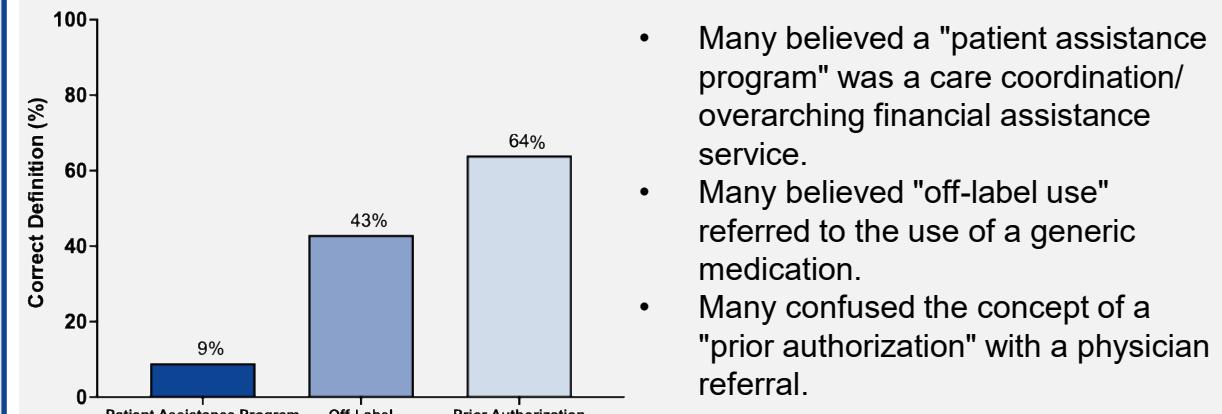
- Participants were asked to self-rate their ability to seek information regarding insurance, understand insurance documents, and their ability to apply insurance knowledge using a scale from 1 (strongly disagree) to 10 (strongly agree).
- Self-ratings indicate that people with FOP and their caregivers feel confident in their health literacy.

Figure 5. Health Insurance Literacy, Self-Rating



- When asked to describe key concepts in their own words, many interview participants provided incorrect definitions.

Figure 6. Correct Definitions (n=67)



- Many believed "off-label use" referred to the use of a generic medication.
- Many confused the concept of a "prior authorization" with a physician referral.

### Interview Insights: Patient Needs

- In qualitative interviews, there were 131 mentions of resources/services that would be helpful, spanning 32 different categories.



Services for insurance education/coordination  
33 mentions



Resources for disease information & education  
12 mentions



List of FOP-experienced HCPs and/or dentists  
12 mentions



Financial assistance  
12 mentions



Help navigating/awareness of resources  
10 mentions



State-level resources (HCPs, dentists, coverage, programs)  
8 mentions