Allergy and immunology is a subspecialty that deals with the human body’s reaction to foreign substances. Physicians who specialize in allergy and immunology are trained to prevent, diagnose and treat allergic, asthmatic, and immunologic diseases (e.g., hay fever, hives, rheumatoid arthritis, and HIV). These specialists can track down which substance or allergen is causing the problem, advice how to eliminate the cause, and start a treatment plan.

Another career option is laboratory immunology—applying laboratory methods to problems in human disease involving changes in immune responses and performing, interpreting, and evaluating the clinical relevance of special laboratory procedures related to immunologically based diseases.
Profile
The following information reflects responses from 47 allergists and immunologists who completed the 2003 Pathway Physician’s Survey.

A. Respondents by types of areas
- Large City: 27.66%
- Metropolitan City: 27.66%
- Small City: 34.04%
- Rural: 4.26%
- Other: 6.38%

B. Respondents by gender
- Male: 82.61%
- Female: 17.39%

C. Respondents by years in practice

Perspectives

A. Respondents’ satisfaction with current specialty/area of work
- Very satisfied: 30 responses
- Somewhat satisfied: 15 responses
- Neither satisfied nor dissatisfied: 5 responses
- Somewhat dissatisfied: 2 responses
- Very dissatisfied: 1 response
B. Would you choose this specialty again?

- **Yes**: 80.85%
- **No**: 10.64%
- **Not Sure**: 8.51%

C. Respondents by practice environment

- **Academic institution**
- **Affiliated w/group**
- **Business/industry**
- **Hospital**
- **Community**
- **Academic med ctr**
- **Hospital other**
- **Managed care**
- **HMO**
- **IPA**
- **PPO**
- **Med care other**
- **Solo practitioner**
- **Practice other**

D. Respondents’ satisfaction with practice environment

- **Very satisfied**
- **Somewhat satisfied**
- **Neither satisfied nor dissatisfied**
- **Somewhat dissatisfied**
- **Very dissatisfied**
Rating and Weighting of Critical Factors

Critical Factors represent significant aspects of physicians’ experiences in their practices. The rating represents their assessment of their current practice characteristics, while the weighting represents the importance of each factor to physicians.

A. Caring for patients: How much time do you spend directly seeing and caring for patients?

Rating

No time at all

Most of my time

Weighting

Not at all important

Very important

σ = 2.16

σ = 0.52

σ = 1.59

B. Continuity of care: How much continuity of care do you have with patients, (i.e., the length of patient relationships)?

Rating

Short Term

Long Term

Weighting

σ = 0.76

σ = 0.69

C. Autonomy: To what extent do you have the final word on the treatment of your patients?

Rating

Very limited autonomy

Great deal of autonomy

Weighting

σ = 1.39

σ = 0.69
D. Diversity: How much routine (similar work) or diversity (different tasks/activities) is involved in your work?

\[ \sigma = 5.35 \]

E. Personal time: Does your work allow you to control the scheduling and amount of time you spend on personal activities, (i.e., family, leisure)?

\[ \sigma = 2.29 \]

F. Expertise: How broad is the scope of your work?

\[ \sigma = 2.52 \]
G. Income satisfaction: Compared to all physicians, do you feel you are fairly compensated for the amount of time and effort you spend?

**Rating**

Value: 5.9

**Weighting**

Value: 4.1

H. Creativity: To what extent does your work provide opportunity for creativity?

**Rating**

Value: 7.2

**Weighting**

Value: 3.9

I. Certainty of outcomes: How much certainty of clinical outcomes does your work provide?

**Rating**

Value: 7.4

**Weighting**

Value: 3.6
J. Clinical decision-making: On what basis are your clinical decisions made?

**Rating**

Application of theory to a situation

Based on prior evidence of clinical outcomes

**Weighting**

K. Patient decision-making: To what extent do your patients have input into decisions about their health care?

**Rating**

L. Interacting with other physicians/members of health-care team: To what extent does your work provide opportunities for you to interact with other physicians/members of a health-care team?

**Rating**
M. **Manual/mechanical activities**: How often do you use manual/mechanical activities for highly skilled tasks (i.e., following procedures, performing operations)?

![Rating](image1)

Weighting

![Weighting](image2)

N. **Pressure**: How much pressure do you have in your work (i.e., dealing with clinical crises, need for immediate decisions about patients, dealing with multiple patients simultaneously).

![Rating](image3)

Weighting

![Weighting](image4)

O. **Responsibility**: How much responsibility do you assume for patient outcomes in your work?

![Rating](image5)

Weighting

![Weighting](image6)
**P. Schedule:** What type of schedule do you have in your work?

Rating

<table>
<thead>
<tr>
<th>Rating</th>
<th>Mean (σ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular hours</td>
<td>2.9 (σ = 2.14)</td>
</tr>
<tr>
<td>Irregular and unpredictable hours</td>
<td></td>
</tr>
</tbody>
</table>

**Q. Security:** How much professional security do you have in your position, (i.e., know where you stand and are certain of your future professionally, will there be a need for your services in the future)?

Rating

<table>
<thead>
<tr>
<th>Rating</th>
<th>Mean (σ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little security</td>
<td>6.7 (σ = 2.63)</td>
</tr>
<tr>
<td>Great deal of security</td>
<td></td>
</tr>
</tbody>
</table>

**R. Sense of accomplishment:** To what extent does your work provide the opportunity to see end results?

Rating

<table>
<thead>
<tr>
<th>Rating</th>
<th>Mean (σ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little opportunity</td>
<td>8.1 (σ = 2.05)</td>
</tr>
<tr>
<td>Great deal of opportunity</td>
<td></td>
</tr>
</tbody>
</table>

Weighting

<table>
<thead>
<tr>
<th>Rating</th>
<th>Mean (σ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all important</td>
<td>2.4 (σ = 0.75)</td>
</tr>
<tr>
<td>Very important</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rating</th>
<th>Mean (σ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all important</td>
<td>4.2 (σ = 0.76)</td>
</tr>
<tr>
<td>Very important</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rating</th>
<th>Mean (σ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all important</td>
<td>4.5 (σ = 0.62)</td>
</tr>
<tr>
<td>Very important</td>
<td></td>
</tr>
</tbody>
</table>
Weekly distribution of time
According to the survey, allergists and immunologists spend their week as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Average Hours per week (may overlap)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient care activities</td>
<td>35.90</td>
</tr>
<tr>
<td>On-call (in contact)</td>
<td>3.34</td>
</tr>
<tr>
<td>On-call (available)</td>
<td>76.10</td>
</tr>
<tr>
<td>Administrative</td>
<td>5.90</td>
</tr>
<tr>
<td>Professional travel</td>
<td>3.43</td>
</tr>
<tr>
<td>Continuing education</td>
<td>2.52</td>
</tr>
<tr>
<td>Community service</td>
<td>1.52</td>
</tr>
<tr>
<td>Research</td>
<td>11.15</td>
</tr>
<tr>
<td>Other professional</td>
<td>3.35</td>
</tr>
</tbody>
</table>

Patient profile

A. Patient encounters per week

![Bar chart showing patient encounters per week](chart)

B. Patient characteristics

By age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants (0-2 yrs)</td>
<td>8.49</td>
</tr>
<tr>
<td>Children (3-18 yrs)</td>
<td>29.81</td>
</tr>
<tr>
<td>Adults (19-64 yrs)</td>
<td>47.87</td>
</tr>
<tr>
<td>Older adults (65+ yrs)</td>
<td>13.70</td>
</tr>
</tbody>
</table>

By race

<table>
<thead>
<tr>
<th>Race</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underrepresented minority (URM)</td>
<td>18.02</td>
</tr>
<tr>
<td>Non-URM</td>
<td>81.98</td>
</tr>
</tbody>
</table>

By type of insurance

<table>
<thead>
<tr>
<th>Type of Insurance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid/Medicare</td>
<td>19.77</td>
</tr>
<tr>
<td>Uninsured</td>
<td>4.44</td>
</tr>
<tr>
<td>Other</td>
<td>75.79</td>
</tr>
</tbody>
</table>

Percentage of patient encounters that deal with:

- Routine check-ups: 22.36%
- Acute illness: 23.44%
- Chronic illness: 69.45%
- Terminal illness: 1.63%

Percentage of time per patient encounter devoted to:

- Acute conditions: 28.51%
- Chronic conditions: 60.32%
- Preventive health: 26.91%

C. Five types of illnesses/conditions most frequently encountered

<table>
<thead>
<tr>
<th>Illness/Condition</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergic rhinitis/conjunctivitis</td>
<td>49</td>
</tr>
<tr>
<td>Asthma</td>
<td>44</td>
</tr>
<tr>
<td>Urticaria/angioedema</td>
<td>35</td>
</tr>
<tr>
<td>Sinusitis</td>
<td>28</td>
</tr>
<tr>
<td>Dermatitis</td>
<td>24</td>
</tr>
</tbody>
</table>
Specialty: Allergy & Immunology

Summary of comments for question: List up to three other factors, if any, you would advise students to consider carefully before selecting your specialty?

Physicians who completed the Pathway Physician’s Survey, 2003, submitted the following comments. The majority of comments are categorized by the Critical Factors that are rated and weighted in another section. Numbers in parentheses indicate the total number of responses for a particular comment.

1. Caring for Patients
   - Enjoy outpatient care of patients, usually little inpatient care in this specialty (2)
   - Enjoyment of patient interaction
   - Be able to listen to patients—allergy is about quality of life issues for patients
   - Patient availability

2. Continuity of Care

3. Autonomy
   - Be my own boss

4. Diversity
   - Can do clinical, surgical or combination
   - Diversity ranging from simple problems to complex

5. Personal Time
   - Allergy is a great specialty if one places importance on ability to have quality time away from work
   - Freedom
   - Leaves time for obtaining self-knowledge
   - Lifestyle
   - Ability to control schedule
   - Expect long hours
   - Free time
   - Long vacations difficult

6. Expertise
   - In this specialty the knowledge of immunology always keeps you on the cutting edge.
   - Intellectual challenge
   - Need background in pulmonary medicine (adult)
   - Need background in pediatric pulmonary
   - Ideal balance of clinical problems and basic science knowledge
   - Comfort with multi-system disease
   - Scientific interest in the subject
• Willingness to commit to a lifetime of learning
• Love of clinical detective work
• Detail orientation

7. Income Satisfaction
• Do not choose it for the money (2)
• Low payment from HMOS for procedures performed
• Medicare rules limiting compensation (Immunotherapy)
• Economics
• You are unlikely to become wealthy, but income is adequate

8. Creativity
• Limited scope

9. Certainty of Outcomes
• Dedication to patient outcomes
• Obvious outcomes

10. Clinical Decision Making

11. Patient Decision Making
• Ability of patients to self-medicate for diseases treated by specialty

12. Interacting with Other Physicians/Members of Health-care Team
• Personality in dealing with people
• The need to be a teacher of residents, fellows, and other physicians
• Have to build a referral base with primary care doctors and pediatricians

13. Manual /Mechanical Activities
• Allergy would not be satisfactory for someone who feels the need to do a lot of procedures (2)

14. Pressure

15. Responsibility
• No hospital responsibilities
• Being willing to say the buck stops here

16. Schedule
• Seasonal work

17. Security
• Ability to live with uncertainty (2)
• Availability of subspecialty
• Future of specialty medicine
- The likelihood of the specialty surviving in the future, in view of pressure from managed care hospital based medical systems, and other insurers
- Need for immunotherapy in future
- Will or can the specialist ultimately be replaced by a technician in a generalist’s office?
- Need for services in my specialty
- Whether they are needed in the area where they want to live
- Availability of a position where you want to practice
- Are the skills inherent to this specialty so unique that there will always be a demand for the specialist?
- Certain areas are saturated with allergists
- This specialty may not have the highest priority for some institutions compared to other invasive or inpatient based specialties, i.e., cardiology

18. Sense of Accomplishment

19. Patient Characteristics
- Age range of patients treated
- Patience in seeing chronic patients
- Healthier patient population

20. Types of Illnesses
- Healthier patient population

21. Practice Environment
- Academic is much different than private practice
- Academic stimulation
- Ambulatory care
- Academic pressures
- Academic vs. private practice
- Ability to narrow or expand practice
- Office and surgery
- Practice style of group
- Flexibility

22. HealthCare Environment
- Effect of managed care
- Ability to adapt to changes in healthcare delivery
- Expect difficulty with insurance companies and regulators to the point that you are just a cog in a wheel
- Payer environment

23. Personality/Temperament
- Tenacity
- Affability
24. Miscellaneous Comments

- Interest in specialty
- Interest in the science of the diseases
- Living environment
- Location
- Relatively small specialty
- Research interest
- Allergy is much different than immunology
- Be able to say you chose it because you enjoy it
- Long-term commitment for residency and fellowship
- Multiple subspecialties of OTO available
- Opportunity
- Academic aspirations
- Assure your expectations are realistic re: nature of practice, income potential, and job security
- Expectations
- Must like it
- It is always interesting