

SUPERIOR COURT IN THE STATE OF CALIFORNIA  
FOR THE COUNTY OF SAN FRANCISCO  
UNLIMITED JURISDICTION

-oOo-

ELIEZER WILLIAMS, a minor, by )  
SWEETIE WILLIAMS, his guardian ad )  
litem, et al., each individually )  
and on behalf of all others )  
similarly situated, )

Plaintiff(s), )

vs. ) No. 312236

STATE OF CALIFORNIA, DELAINE EASTIN )  
STATE SUPERINTENDENT OF PUBLIC )  
INSTRUCTION, STATE DEPARTMENT OF )  
EDUCATION, STATE BOARD OF )  
EDUCATION, )

Defendant(s). )

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DEPOSITION OF MEGAN T. SANDEL, M.D.

VOLUME I

San Francisco, California

January 28, 2003

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ATKINSON-BAKER, INC. COURT REPORTERS  
330 North Brand Boulevard, Suite 250  
Glendale, California 91203

(818) 551-7300

REPORTED BY: Cindy Pickens, CSR No. 3262

FILE NO.: 9D00BD3

I N D E X

1 By Mr. Seferian 5

2

3 EXHIBITS

4

5 No. Description Page

6 1 Deponent's C.V. 44

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8 2 Additional Materials Provided to 111

9 Expert Megan Sandel

10 3 Declaration 114

QUESTIONS INSTRUCTED NOT TO ANSWER

(None.)

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1 MEGAN T. SANDEL, M.D.

2 called as a witness herein, having been

3 first duly administered the oath,

4 testified as follows:

5 -oOo-

6 APPEARANCES:

7 For the Plaintiff(s):

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1 SUPERIOR COURT IN THE STATE OF CALIFORNIA

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17 EDUCATION, STATE BOARD OF )

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20 Defendant(s). )

15 -oOo-

16 San Francisco, California January 28, 2003

17 -oOo-

18

19 The deposition of MEGAN T. SANDEL, M.D. was taken in

20 the above-entitled matter pursuant to all of the

21 provisions of law pertaining to the taking and use of

22 depositions before Cindy Pickens, CSR, with offices at

23 Glendale, California, commencing at the hour of 9:30

24 a.m., at the law offices of O'MELVENY & MYERS, LLP,

25 275 Battery Street, 26th Floor, San Francisco,

California.

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1 -oOo-

2 EXAMINATION

3 BY MR. SEFERIAN:

4 Q. Would you please state your name.

5 A. My name is Dr. Megan Sandel.

6 Q. How do you spell that?

7 A. M-E-G-A-N, and then Sandel, S-A-N-D-E-L.

8 Q. Dr. Sandel, my name is Tony Seferian. I

9 represent the California Superintendent of Public

10 Instruction, California Department of Education, and

11 the California Board of Education in the Williams

12 versus California lawsuit.

13 A. Mm-hmm.

14 Q. Have you ever qualified in court as an expert

15 witness?

16 A. This is my first time testifying in a

17 deposition in a court case. I've testified before

18 legislatures for laws.

19 Q. Have you ever testified in a court case where

20 you were qualified as an expert witness in any

21 subject?

22 A. I've not testified as a -- an expert witness.

23 I've testified in family court around where -- cases

24 where I'm a pediatrician and I'm asked about my

25 opinions about families.

1 Q. How many times have you testified in family  
 2 court?  
 3 A. I'm not sure the exact number. My estimate  
 4 would be three or four times.  
 5 Q. What were the circumstances under which you  
 6 testified in a family court?  
 7 A. In the state of Massachusetts, the child  
 8 protection agency is called the Department of Social  
 9 Services. These were cases where the Department of  
 10 Social Services was seeking custody of a child that I  
 11 was the pediatrician of. The judge was asking my  
 12 opinion about whether the child should be removed from  
 13 the mother's care.  
 14 Q. So the three to four times that you testified  
 15 in court, it was a family court in Massachusetts  
 16 related to child custody issues.  
 17 Is that correct?  
 18 A. Yes. That is correct.  
 19 Q. Have you ever qualified in court as an expert  
 20 witness regarding anything to do with the relationship  
 21 between school-facility conditions and student-health  
 22 issues?  
 23 A. No. This is my first time.  
 24 Q. When you testified in family court, were you  
 25 testifying as to your observation of the -- of

1 children who were patients of yours?  
 2 MR. ELIASBERG: Objection. Vague.  
 3 I'm sorry. You can answer.  
 4 THE WITNESS: I can answer?  
 5 MR. ELIASBERG: Yeah. I'm just making an  
 6 objection.  
 7 THE WITNESS: The -- the nature was to the --  
 8 my observations of the care of the child. This was  
 9 also a family that I had visited while they were  
 10 homeless and then also in their -- when they became  
 11 housed.  
 12 BY MR. SEFERIAN:  
 13 Q. When you testified in family court, did that  
 14 involve one family on those different occasions, or  
 15 did you testify three to four times regarding  
 16 different families?  
 17 MR. ELIASBERG: Objection. Ambiguous.  
 18 You can answer.  
 19 THE WITNESS: The -- I did testify regarding  
 20 one family three to four times. I may have testified  
 21 about other families, but that's the family that  
 22 stands out in my mind.  
 23 BY MR. SEFERIAN:  
 24 Q. How many times have you testified before the  
 25 legislature?

1 MR. ELIASBERG: Objection. Vague. You mean  
 2 any legislature, or a specific one?  
 3 BY MR. SEFERIAN:  
 4 Q. How many times have you testified before any  
 5 state legislature or other legislative body?  
 6 A. I've testified in front of both the state and  
 7 senate. I'm not sure I remember the exact committee  
 8 on different legislation regarding housing conditions  
 9 and children's health. I've also testified in front  
 10 of the Boston City Council about indoor environment  
 11 conditions in children's health.  
 12 Q. Were all those legislative bodies that you  
 13 testified before in Massachusetts?  
 14 A. Yes.  
 15 Q. You testified before the -- before a State  
 16 Senate committee in Massachusetts.  
 17 Is that correct?  
 18 A. That was one of the committees. There was  
 19 also a House committee. It was regarding specific  
 20 legislation.  
 21 Q. You also testified before the House committee  
 22 in Massachusetts.  
 23 Is that correct?  
 24 A. Yes.  
 25 Q. How many times have you testified before the

1 State Senate committee in Massachusetts?  
 2 A. I can think of at least two instances. There  
 3 may be others.  
 4 Q. Do you recall the specific topics of your  
 5 testimony before the Massachusetts State Senate  
 6 committee on the two occasions you testified there?  
 7 MR. ELIASBERG: Objection. Misstates her  
 8 prior testimony.  
 9 THE WITNESS: The -- the two examples that I  
 10 can recall -- there may be others -- is one that was  
 11 legislation trying to encourage the Attorney General's  
 12 Office of the State of Massachusetts to sue the  
 13 lead-paint industry over the ill effects of lead  
 14 exposure in children.  
 15 The second instance that I recall is a law  
 16 that was to protect tenants who were living in  
 17 unsanitary conditions to be able to withhold rent  
 18 until those sanitary conditions were fixed, without  
 19 having problems with evictions in court.  
 20 I may be oversimplifying those laws, but that  
 21 was the general -- my recollection -- general  
 22 recollection of what those laws were stating.  
 23 BY MR. SEFERIAN:  
 24 Q. At the time you recall you testified before  
 25 the Massachusetts State Senate, were you testifying in

1 regard to specific legislation?

2 A. I was testifying in support of specific  
3 legislation. I should be clear that some of those  
4 committees were combined House-Senate committees, so  
5 that saying that they were just State Senate  
6 committees may not be 100 percent accurate.

7 Q. Do you recall the dates of your testimony  
8 before the Massachusetts State committees?

9 A. I don't recall the exact dates. The -- the  
10 legislation on the -- it was called the Rent Escrow  
11 Bill which would allow people to withhold rent if they  
12 had unsanitary conditions in their home. I believe it  
13 was March or April of 2000, and I don't recall when  
14 the -- the lead-liability legislation was.

15 Q. Have you testified before any other  
16 legislative bodies, other than the Massachusetts State  
17 committee that you just mentioned?

18 MR. ELIASBERG: Asked and answered.

19 THE WITNESS: I mentioned the Boston City  
20 Council, that I had also testified before. Those are  
21 the -- the three that I recall. There may be others.

22 BY MR. SEFERIAN:

23 Q. How many times did you testify before the  
24 Boston City Council?

25 A. There is one time that I recall testifying.

1 my first time serving as an expert witness.

2 BY MR. SEFERIAN:

3 Q. And that includes as an expert witness in  
4 court, correct?

5 A. An expert witness in court. I have served as  
6 expert witness in, obviously, other legislative  
7 bodies, but this is my first time as an expert witness  
8 in a litigative case.

9 Q. Before this case, had you ever been asked to  
10 serve as an expert by any law firm or attorney?

11 A. No, not that I recall.

12 Q. Before this case, had you ever prepared a  
13 report similar to the one that you prepared for this  
14 case?

15 A. This is my first time preparing a -- an  
16 expert report. I have prepared other reports  
17 describing the ill effects of indoor environmental  
18 conditions on children, and children's health.

19 Q. Do you have any estimate of how many reports  
20 you have prepared regarding indoor environmental  
21 conditions and their effects on children and  
22 children's health?

23 A. I'd have to refer back to my C.V. I have  
24 written extensively on the issue both in reports, in  
25 peer review journals, and given presentations

1 Q. What was the topic of your testimony before  
2 the Boston City Council?

3 A. My topic was on a law looking to help cap  
4 rent increases, and it was discussing the  
5 ramifications of families needing to choose between  
6 large rent and living in unsanitary conditions, or  
7 children suffering other health problems as a result  
8 of spending too much on rent -- such as hunger.

9 Q. Have you ever testified before any  
10 legislative body regarding school-facility conditions  
11 and children's-health issues?

12 A. I've not testified on those subjects.

13 Q. Have you ever qualified in court as an expert  
14 witness on public health issues?

15 MR. ELIASBERG: Objection. Vague. Asked and  
16 answered.

17 THE WITNESS: I have testified in court, as I  
18 mentioned previously. This is my first time serving  
19 as an expert witness in a case.

20 BY MR. SEFERIAN:

21 Q. Would it be correct to say that you have  
22 never qualified in court as an expert witness on  
23 public health issues?

24 MR. ELIASBERG: Asked and answered.

25 THE WITNESS: I will reiterate that this is

1 nationally on the subject.

2 Q. When you say you prepared other reports  
3 regarding indoor environmental conditions and  
4 children's health, can you describe generally what  
5 types of reports those were?

6 MR. ELIASBERG: Vague and over broad, but you  
7 can answer.

8 THE WITNESS: Some of the reports were  
9 generally-released reports that were made available on  
10 a website that were reviewed by selected peers that  
11 described the different diseases that children can  
12 suffer or that can be made worse as a result of indoor  
13 environmental conditions.

14 Some were journal articles that were  
15 submitted and peer-reviewed to journals. Again, I'll  
16 refer you to my C.V. where many of them are listed.

17 And then I have done many presentations,  
18 either poster presentations or slide show  
19 presentations, to academic meetings or to government  
20 meetings that describe different topics ranging from  
21 asthma and the environment to lead exposure in the  
22 environment, childhood injuries, or other  
23 environmental hazards and how they affect children's  
24 health.

25 BY MR. SEFERIAN:

1 Q. Have you ever prepared any reports regarding  
2 indoor environmental conditions in public schools and  
3 their relation to children's health?

4 A. Most of the reports that I have generated  
5 have focused on conditions that can exist both in  
6 homes or in schools or in day cares; basically, within  
7 the indoor environment.

8 I have not written a specific report that  
9 addressed just schools, but many of my reports address  
10 the conditions that can be found in any indoor  
11 environment.

12 Q. Have you ever written a report that  
13 addressed, specifically, indoor environmental  
14 conditions in public schools?

15 MR. ELIASBERG: Asked and answered.

16 THE WITNESS: I'd have to say, again, that  
17 the reports that I have written have discussed the  
18 effects of specific conditions. Much of my academic  
19 research has been doing experiments around housing  
20 conditions, but as many of my citations in my expert  
21 report will attest, the conditions that are found in  
22 homes that are detrimental to children's health are  
23 the same conditions that can be found in schools.

24 MR. POULOS: I'm going to object and move to  
25 strike on the basis that the response is not

1 children's-health issues?

2 A. I don't recall in any publication discussing  
3 specific schools or school conditions. I have  
4 participated in presentations where such things have  
5 been discussed, but they have not been published in  
6 publications where I am an author.

7 Q. Would you agree that most of your academic  
8 research has been focused around housing conditions?

9 A. I would characterize that I have studied how  
10 specific conditions can affect children's health, and  
11 that most of my research has been looking at the  
12 effects of those conditions as they are experienced  
13 through housing and how to improve them through  
14 housing.

15 I would also add that some of my academic  
16 involvement in other societies or other organizations  
17 has included discussing these conditions as they  
18 relate to other indoor environments, including  
19 schools.

20 Q. What other academic involvement were you  
21 referring to in that last answer, wherein you  
22 discussed how those conditions relate to other indoor  
23 environments, including schools?

24 A. There's an entity in New England states,  
25 called The Asthma Regional Council, that I refer to in

1 responsive to the question.

2 MR. ELIASBERG: That's fine. You answered  
3 the question.

4 BY MR. SEFERIAN:

5 Q. Have you ever written a report where you  
6 discussed indoor environmental conditions in a  
7 specific school or a set of schools or a statewide set  
8 of schools, and how those conditions affect children's  
9 health?

10 A. I'm sorry. Can you repeat the question?

11 MR. SEFERIAN: Would you read it, please.

12 THE COURT REPORTER: "QUESTION: Have you  
13 ever written a report where you discussed indoor  
14 environmental conditions in a specific school or a set  
15 of schools or a statewide set of schools and how those  
16 conditions affect children's health?"

17 MR. ELIASBERG: Asked and answered.

18 THE WITNESS: I think that, as I said before,  
19 I have mostly written about indoor health conditions  
20 that can be found in both homes and schools.

21 BY MR. SEFERIAN:

22 Q. As you sit here today, do you recall any  
23 publication that you've authored where you have  
24 discussed indoor environmental conditions in any  
25 specific schools and how those conditions relate to

1 the -- in the C.V. This entity has multiple  
2 committees, one of which is a Healthy Schools  
3 Committee that I participate in. There are also  
4 organizations within Boston, such as the Boston Urban  
5 Asthma Coalition.

6 That's the Healthy Schools Committees that  
7 I've participated with. Those are two examples I can  
8 think of.

9 Q. Are you a member of the Healthy Schools  
10 Committee of The Asthma Regional Council?

11 MR. ELIASBERG: Objection. Assumes facts.

12 THE WITNESS: Yes. I have. I have been a  
13 member of the Healthy Schools Committee.

14 BY MR. SEFERIAN:

15 Q. What is your membership on the Healthy  
16 Schools Committee? What involvement do you have with  
17 that committee?

18 A. That committee has met mostly through  
19 conference calls to develop guidelines for how schools  
20 could address some of their indoor environment  
21 problems, and has been considering adopting some of  
22 the educational materials that we had also developed  
23 on our Healthy Homes Committee -- on that same  
24 entity -- to try and assist building maintenance and  
25 other educational personnel and how to help their

1 schools be healthier.

2 Q. Do you have any involvement with the Healthy

3 Schools Committee, other than participating in these

4 conference calls?

5 A. That's the extent of my possible involvement,

6 so I -- I'm as fully involved as I can be in the

7 committee.

8 Q. Does the Healthy Schools Committee have any

9 type of positions -- in executive director or

10 president?

11 A. The -- well, at the last meeting I was asked

12 to be a co-chair on the committee. Unfortunately, I

13 was too busy to be that, but the chair of the

14 committee's name is Michael Kucsma from the state of

15 Maine.

16 Q. How do you spell that?

17 A. K-U-C-S-M-A.

18 Q. Has the Healthy Schools Committee drafted any

19 guidelines for schools to address indoor environmental

20 problems?

21 A. Yes. They've produced a multi-page

22 document -- I'm not sure exactly how long it is --

23 trying to help school professionals to address their

24 environmental hazards when they arise.

25 Q. What is the name of that document?

1 A. I'm not sure. I think that it's -- I'm not

2 sure of the exact title, to be honest with you.

3 Q. Have you seen the document?

4 A. Yes.

5 Q. Has the document been published?

6 A. I think that it's available on the website of

7 the -- actually I should -- I'm not sure. It may

8 be -- it's been drafted, so I'm not sure whether it's

9 up on the website yet. I think it will be soon. It's

10 a -- was a first draft done by the staff of the

11 committee.

12 Q. Which website are you referring to?

13 A. It's [www.asthmaregionalcouncil.org](http://www.asthmaregionalcouncil.org), all one

14 word.

15 Q. Did you rely on those guidelines that were

16 drafted by The Asthma Regional Council in forming any

17 of the opinions that you've expressed in this case or

18 that you will express in this case?

19 A. I had written the report before those

20 guidelines were drafted. So, no. I -- I tended to

21 rely on other sources for my expert report.

22 Q. When were those guidelines drafted?

23 A. Just in the last few months.

24 Q. Were you involved in the drafting of The

25 Asthma Regional Council guidelines regarding schools

1 to address indoor environmental conditions?

2 A. I had participated in some of the -- the

3 drafting. It was more of a compilation of many

4 different people who participated on the Healthy

5 Schools Committee.

6 Q. Would you describe your involvement with the

7 Boston Urban Asthma Committee?

8 A. The Boston Urban Asthma Coalition has

9 multiple committees that are addressing different

10 areas of the asthma crisis in Boston. One of them is

11 the Healthy Schools Committee, and I've discussed and

12 participated in that committee with the chair of that

13 committee who's name is Tolle Graham.

14 Q. Which committee was that?

15 A. Its name is the Healthy Schools Committee. I

16 participated on other committees in the Boston Urban

17 Asthma Coalition, but that's one of the committees.

18 Q. Do you attend meetings for the Healthy

19 Schools Committee in the Boston Urban Asthma

20 Coalition?

21 A. I have attended meetings. They have not met

22 recently.

23 Q. How often have you attended meetings for the

24 Healthy Schools Committee in the Boston Urban Asthma

25 Coalition?

1 A. I'm not sure I can recall the exact number.

2 I have attended multiple meetings. I'm not sure I can

3 remember exactly how many.

4 Q. What topics have you discussed on the Healthy

5 Schools Committee?

6 A. We discussed some of the indoor conditions

7 that can be associated with poor child health, such as

8 worry intrusion and potential for mold growth, pest

9 infestation, and ways to address preconditions to pest

10 infestation. Many of the guidelines that they have

11 used have been from the Environmental Protection

12 Agency's Tools For Schools materials.

13 Q. Has the Healthy Schools Committee of the

14 Boston Urban Asthma Coalition drafted any of its own

15 guidelines regarding school conditions?

16 MR. ELIASBERG: Objection. Vague.

17 THE WITNESS: I'm not aware of any specific

18 materials. There is a larger network called the

19 Healthy Schools Network, in Massachusetts. And I'm

20 not sure whether or not they have drafted materials.

21 The Boston Urban Asthma Coalition participates in that

22 network.

23 BY MR. SEFERIAN:

24 Q. What are the different groups or individuals

25 that make up the Boston Urban Asthma Coalition?

1 A. My memory was -- the last estimate was over  
 2 200 committee-based organizations, parents,  
 3 physicians, nurses, and governmental agencies in  
 4 trying to address asthma in the city of Boston.  
 5 Q. What organizations or individuals make up the  
 6 Healthy Schools Network in Massachusetts?  
 7 A. I am not as familiar with that organization.  
 8 Q. Are you a member of the Healthy Schools  
 9 Network in Massachusetts?  
 10 MR. ELIASBERG: Objection. Assumes facts.  
 11 THE WITNESS: No. I'm not a member of the  
 12 Healthy Schools Network.  
 13 BY MR. SEFERIAN:  
 14 Q. Have you ever inspected any public schools in  
 15 California?  
 16 A. No, I've never -- never been in the  
 17 California public schools.  
 18 Q. Have you ever done any public health work in  
 19 California?  
 20 MR. ELIASBERG: Objection. Vague.  
 21 THE WITNESS: I'm not sure exactly what you  
 22 mean by "public health." What I can say is, I've done  
 23 legislative training in California at academic  
 24 meetings.  
 25 BY MR. SEFERIAN:

1 Q. Do you have a definition of public health?  
 2 A. My definition of public health would include  
 3 studying conditions that affect the health of  
 4 populations. It would include academic research in  
 5 those areas, and it would include policy changes to  
 6 try and address the health of populations.  
 7 Q. Based upon your definition of public health,  
 8 would you say that you have done any public health  
 9 work in California?  
 10 A. I think I have done some lectureship in  
 11 academic research in California.  
 12 Q. What work would that be?  
 13 A. One of the national meetings for the Agency  
 14 For Health Care Quality Research was held in Los  
 15 Angeles, where I did a poster presentation, is one  
 16 example.  
 17 Q. What was the name of the organization?  
 18 A. It's called -- AHRQ is the -- the name of the  
 19 agency. A-H-R-Q. Let's see. Agency for Healthcare,  
 20 Research and Quality.  
 21 Q. Have you done any other public health work in  
 22 California, in addition to the poster presentation you  
 23 did for the AHRQ?  
 24 A. I think that's it. I -- there may be others,  
 25 but --

1 Q. Has a majority of your professional work been  
 2 based in Massachusetts?  
 3 MR. ELIASBERG: Objection. Vague.  
 4 THE WITNESS: A majority have -- of my  
 5 research in clinical work has been done in  
 6 Massachusetts. As I stated previously, I've lectured  
 7 nationally on this subject, and have written  
 8 publications that have been published nationally.  
 9 BY MR. SEFERIAN:  
 10 Q. Have you performed any public health work in  
 11 any school, or Massachusetts?  
 12 MR. ELIASBERG: Objection. Vague.  
 13 THE WITNESS: I have been more involved in  
 14 schools in Massachusetts around individual patients of  
 15 mine than I have done public health as I defined it  
 16 earlier as more population health.  
 17 BY MR. SEFERIAN:  
 18 Q. Have you done any public health work, as  
 19 you've defined "public health," in any school in  
 20 Massachusetts?  
 21 MR. ELIASBERG: Objection. Vague. And asked  
 22 and answered.  
 23 THE WITNESS: I would say that my involvement  
 24 in committees such as the Healthy Schools Committee in  
 25 the Boston Urban Asthma Coalition or participation in

1 the Healthy Schools Committee of The Asthma Regional  
 2 Council may have some indirect involvement in schools  
 3 within Massachusetts.  
 4 I have not personally done academic work  
 5 within schools or directly done policy work within  
 6 schools, but, as I mentioned, I have done individual  
 7 advocacy work within schools.  
 8 BY MR. SEFERIAN:  
 9 Q. Have you ever studied any indoor  
 10 environmental conditions in any school in  
 11 Massachusetts?  
 12 A. I believe I answered that. I've not done  
 13 academic work in schools. I have participated in  
 14 press conferences at schools for different public  
 15 health initiatives such as the EPA's Children's First  
 16 Campaign, to try and improve the indoor air quality of  
 17 schools. That specific school, the Lucy Blackstone,  
 18 is right near the hospital I work at. That will be  
 19 the type of activities that I've participated in.  
 20 Q. Would it be correct to say that you have not  
 21 specifically studied indoor environmental conditions  
 22 in any public school in Massachusetts?  
 23 A. The way that I would characterize it would be  
 24 that I have studied many conditions that I know to be  
 25 present in both homes and schools, that most of my

1 published research has been about these conditions  
2 being found in homes. But I know from both personal  
3 experience as a pediatrician and from many discussions  
4 with school nurses or school teachers or other  
5 occupational health experts that these same conditions  
6 are present in schools.

7 MR. POULOS: I'm going to object and move to  
8 strike on the grounds that the answer was not  
9 responsive to the question.

10 MR. ELIASBERG: It's perfectly responsive.

11 BY MR. SEFERIAN:

12 Q. Have you ever gone to any public school in  
13 Massachusetts, as a public health official, and  
14 documented the presence of any indoor environmental  
15 conditions that relate to children's health?

16 MR. ELIASBERG: Objection. Vague as to  
17 "public health official."

18 THE WITNESS: Can you be more specific as to  
19 what "public health official" means?

20 BY MR. SEFERIAN:

21 Q. Do you consider yourself to be a public  
22 health official?

23 A. As a pediatrician, I treat both individual  
24 patients and populations of patients. So I have had  
25 contact with schools about my patients and their

1 officials -- or, I should say, higher-up officials, if  
2 you will, such as principals or superintendents.

3 I have spoken with the pediatrician who's on  
4 the Boston School Committee at times about conditions,  
5 but aside from nurses and an occasional personal  
6 communication with a teacher.

7 MR. ELIASBERG: It's been about an hour. Is  
8 this a good time, or have you got a few more  
9 questions?

10 MR. SEFERIAN: That's fine.

11 MR. ELIASBERG: Okay. Let's take a  
12 five-minute break.

13 (Recess.)

14 BY MR. SEFERIAN:

15 Q. Dr. Sandel, during the break that we just  
16 took did you have any discussion with Mr. Eliasberg  
17 about this deposition or this case?

18 A. We were discussing how -- how it went, the  
19 types of questions that you were asking, and how we  
20 thought I did.

21 Q. What did you say in the discussion, and what  
22 did Mr. Eliasberg say?

23 A. He thought that my credentials on the  
24 conditions in the schools were strong, and that I  
25 asked what the objection, "strike from the record"

1 specific problems.

2 I am not a government official. I don't hold  
3 a post in either the Boston Public Health Commission  
4 or the Department of Public Health, so I cannot  
5 participate in that capacity as a public health  
6 official.

7 BY MR. SEFERIAN:

8 Q. Have you ever advised any school districts or  
9 schools about public health issues?

10 A. When you say "schools," you mean schools of  
11 public health, or schools of -- or public schools --  
12 public, like education schools?

13 Q. Have you ever advised any public-education  
14 schools about student-health issues and their  
15 relationship between school facilities and children's  
16 health?

17 A. I've spoken with school nurses in certain  
18 educational conferences or meetings about school  
19 facilities, and how they can be related to the health  
20 of children.

21 Q. Other than your discussions with nurses, have  
22 you ever advised any public-education schools about  
23 issues around school facilities and how they related  
24 to children's health?

25 A. I have not spoken, that I recall, with other

1 meant, I think were examples of what we talked about.

2 Q. Did you have any other questions of Mr.  
3 Eliasberg?

4 A. Not that I -- not that I recall. That was my  
5 main question.

6 Q. Have you ever formally advised any school  
7 districts about the relationship between  
8 school-facility conditions and children's health?

9 MR. ELIASBERG: Objection. Vague as to  
10 "formally advised."

11 THE WITNESS: I have not been a paid  
12 consultant to any school to help them with indoor  
13 conditions and their effects on -- on children's  
14 health.

15 (Recess.)

16 BY MR. SEFERIAN:

17 Q. Have you ever advised any state department of  
18 education on indoor environmental conditions in  
19 schools?

20 A. No, I haven't been involved in state  
21 department of -- well, Massachusetts Department of  
22 Education officials.

23 Q. Have you ever been involved at the state  
24 government level, generally, with advising the state  
25 regarding indoor environmental conditions in schools?



1 A. I have had discussions with the Assistant  
 2 Commissioner For Environmental Health at the  
 3 Department of Public Health in Massachusetts about  
 4 some conditions in schools.  
 5 Q. Who is that person?  
 6 A. Her name is Suzanne Condon, C-O-N-D-O-N. I  
 7 would describe them as informal discussions.  
 8 Q. Have you ever formally advised any state  
 9 government regarding indoor environmental conditions  
 10 in public schools?  
 11 A. I have not been a -- in my definition of  
 12 formal, a paid consultant to discuss indoor conditions  
 13 with Department of Public Health officials.  
 14 Q. Have you ever performed any analysis or study  
 15 of school-facility conditions in California?  
 16 A. In my opinion, my expert report does review  
 17 some of the conditions that have been found in  
 18 California schools using sources as listed in the  
 19 bibliography.  
 20 Q. Other than the expert report that you  
 21 prepared for this case, William versus California,  
 22 have you ever performed any analysis or study of  
 23 school-facility conditions in California?  
 24 A. No.  
 25 Q. Have you ever performed any study or analysis

1 comparing the physical condition of school facilities  
 2 in California as it relates to children's-health  
 3 issues with the conditions in any other states?  
 4 A. Aside from the expert report, no.  
 5 Q. Do you have any opinion about whether indoor  
 6 environmental conditions in public schools in  
 7 California are better or worse than in other states?  
 8 A. In my opinion, California has many of the  
 9 same problems that are found in other -- in other  
 10 states. It would be hard for me to characterize  
 11 whether they're better or worse.  
 12 Q. Are you familiar with any of the public  
 13 health officials in California?  
 14 A. Can you define, "public officials?"  
 15 Q. Do you know anyone who's involved in the  
 16 public health field, generally, in California?  
 17 A. I have colleagues that work in different  
 18 areas of California and Los Angeles, San Francisco  
 19 that I know through both my medical-academic and  
 20 public health work.  
 21 Q. Do you know any public health officials who  
 22 work for the State of California or any local  
 23 government in California?  
 24 A. My dad's cousins work for the Attorney  
 25 General's Office. I'm not sure in what entity. I

1 think one of them works for the Department of  
 2 Environmental Protection, and I think another one  
 3 works in another office in the Attorney General's  
 4 Office. But I'm not 100 percent sure, to be honest  
 5 with you.  
 6 Q. Have you ever spoken with anyone who's  
 7 knowledgeable about public health conditions in  
 8 California about public school conditions in  
 9 California?  
 10 A. My brother is a former elementary  
 11 schoolteacher and he and I have discussed some of the  
 12 conditions that were in his elementary school.  
 13 Q. Which school is that?  
 14 A. Highland Elementary School in Oakland.  
 15 Q. Is your brother still a teacher at Highland  
 16 Elementary School?  
 17 A. No.  
 18 Q. Where is your brother a teacher now?  
 19 MR. ELIASBERG: Objection. Assumes facts.  
 20 THE WITNESS: He currently is not employed as  
 21 a teacher.  
 22 BY MR. SEFERIAN:  
 23 Q. Other than your brother, have you ever spoken  
 24 with anyone who is knowledgeable about public health  
 25 conditions in California about public school-facility

1 conditions in California?  
 2 A. I don't believe that I've spoken with any  
 3 governmental or school-associated personnel within  
 4 California about public health conditions in schools.  
 5 Q. Other than the report you prepared for this  
 6 case, have you ever expressed in writing the opinion  
 7 that school-facility conditions affect student's  
 8 short-term and long-term health?  
 9 A. In one of the reports that I published, we  
 10 did talk about school performance. I believe that it  
 11 was related to disease and how diseases can affect  
 12 school performance. In some of my lectures I have  
 13 talked about school conditions. I don't recall other  
 14 publications.  
 15 Q. Before this case do you ever recall -- I'll  
 16 withdraw that question.  
 17 Before this case, do you ever recall  
 18 expressing in writing the opinion that school-facility  
 19 conditions affect students' short-term health and  
 20 long-term health?  
 21 MR. ELIASBERG: Objection. Asked and  
 22 answered.  
 23 THE WITNESS: I think that, as I stated  
 24 before, I've lectured about -- about conditions and  
 25 their affect on children's short- and long-term

1 health. And I mentioned one publication that I think  
2 may discuss some of that.

3 BY MR. SEFERIAN:

4 Q. The report you mentioned where it was  
5 discussing disease and its affect on school  
6 performance, what report was that?

7 A. I believe the name of it is, There's No Place  
8 Like Home. That should be in my C.V.

9 Q. In the publication, There's No Place Like  
10 Home, did you discuss the opinion that school-facility  
11 conditions affect students' short-term health and  
12 long-term health?

13 A. It's been a couple years since we wrote the  
14 publication. I'm not sure, without it in front of me,  
15 that I can exactly quote what it says. I know we talk  
16 about school performance and how adverse conditions  
17 can affect it, but I -- I can't recall whether we  
18 talked specifically about school conditions or just  
19 home conditions or both.

20 Q. Before this case, do you ever recall  
21 expressing in writing the opinion that, specifically,  
22 school-facility conditions affect students' short-term  
23 health and long-term health?

24 A. I think that I had explained that the report  
25 that I published before this report that I just

1 scientific journal any studies that discuss the  
2 relationship of school-facility conditions and the  
3 manifestation of specific childhood illnesses?

4 A. Many of the articles that I've published have  
5 talked about specific conditions and how those  
6 conditions are related to child health. Some of those  
7 conditions have been described in the home setting,  
8 where in many ways there can be more prolific  
9 evidence, but I'm -- I don't recall necessarily always  
10 citing articles to show support that there were these  
11 same conditions found in schools, though my contention  
12 would be that the articles do discuss those same  
13 conditions and how those affect children's health.

14 Q. Have you ever published any studies in any  
15 medical or scientific journal where you specifically  
16 discussed the relationship of indoor environmental  
17 conditions in a school setting and the manifestation  
18 of childhood illnesses resulting from those  
19 conditions?

20 A. As I said before, I don't -- I've not  
21 published just a school-specific setting type of  
22 articles, but I've talked extensively about the  
23 conditions and how those conditions can affect  
24 children. And my contention is those conditions are  
25 the same whether they're found in the home or in the

1 mentioned may have some of that or the lectures  
2 that -- that I did previously may -- may have it. I  
3 think that -- that answers the question that I think  
4 you're asking again.

5 Q. Have the lectures you've been -- I'll  
6 withdraw that.

7 Have the lectures you've given been  
8 published?

9 A. Some are available on websites, not all.  
10 Some have been poster presentations or others that may  
11 be in abstract books from national meetings.

12 Q. Where was There's No Place Like Home  
13 published?

14 A. Here in California in San Francisco by an  
15 advocacy group called Housing America.

16 Q. Was your publication, There's No Place Like  
17 Home, published in any type of medical or scientific  
18 journals?

19 A. No, not that I recall.

20 Q. Have you ever published any articles in any  
21 medical or scientific journals where you express the  
22 opinion that school-facility conditions can affect  
23 students' short term and long-term health?

24 A. Not in any medical journal, that I recall.

25 Q. Have you ever published in any medical or

1 school.

2 Q. Have you participated in any research  
3 projects that specifically studied or documented  
4 public school-facility conditions?

5 A. No.

6 Q. Have you participated in any research  
7 projects or studies of school-facility illnesses in  
8 California?

9 MR. ELIASBERG: Objection. Vague.  
10 Ambiguous.

11 THE WITNESS: I've not participated in  
12 research studies about school conditions in the state  
13 of California.

14 BY MR. SEFERIAN:

15 Q. In the work that you've done for this case,  
16 have you documented any students becoming sick from  
17 molds in California Public Schools?

18 A. I have not conducted any research studies  
19 into children getting sick from mold in California  
20 Public Schools.

21 Q. Have you documented the presence of molds in  
22 any California Public Schools?

23 A. My understanding of my expert report was that  
24 I was to provide testimony as to what the health  
25 effects would be if such conditions existed, that my

1 mandate was not to prove that such conditions existed,  
2 but to simply discuss the health effects if they were  
3 present.

4 Q. Have you documented the presence of molds in  
5 any California Public Schools?

6 MR. ELIASBERG: Objection. Vague as to  
7 "document."

8 THE WITNESS: In the -- in my expert report,  
9 I have documented other research studies that have  
10 found mold in California Public Schools.

11 BY MR. SEFERIAN:

12 Q. You're referring to the studies or reports  
13 that were provided to you to review for this case?

14 A. Some of the reports were reports that I have  
15 or that I found. Some were reports that I requested.

16 Q. Do you have any opinions regarding the extent  
17 of the presence of molds in any California Public  
18 Schools?

19 A. From reading these other reports, in my  
20 opinion, there is mold present in many California  
21 Public Schools.

22 Q. Can you be more specific than that?

23 A. In my opinion, mold being present in schools  
24 can be indicated by either visible mold or the smell  
25 of mold, which would indicate mold within the walls.

1 It may not be visible but it would be present. And  
2 that -- my impression is that the extent of the mold  
3 varies between different public schools.

4 Q. Are there public health experts who  
5 specialize in school health issues?

6 A. In my opinion, many of the experts in school  
7 health focus on learning problems or children with  
8 special needs or communication between health and  
9 school officials. I have not encountered many  
10 researchers who have studied, specifically, the  
11 effects of these conditions that I've described in my  
12 expert report and the effect on children's health.

13 MR. ELIASBERG: I'm sorry. Can you read that  
14 last answer back, please.

15 THE COURT REPORTER: "ANSWER: In my opinion,  
16 many of the experts in school health focus on learning  
17 problems or children with special needs or  
18 communication between health and school officials. I  
19 have not encountered many researchers who have  
20 studied, specifically, the effects of these conditions  
21 that I've described in my expert report and the effect  
22 on children's health."

23 BY MR. SEFERIAN:

24 Q. Are you aware of any researchers who have  
25 studied the conditions mentioned in your report and

1 their effects on children's health?

2 A. I think that I consider myself one of the  
3 experts in how these conditions affect children's  
4 health. I think that there are others that have  
5 studied these, especially in given disease areas such  
6 as asthma or lead or injuries.

7 I think that the effects on children's health  
8 is one area. The other area is occupational health  
9 and how these conditions may affect adult health.

10 Q. Are you aware of any public health experts  
11 who specialize in issues regarding school health?

12 MR. ELIASBERG: Objection. Vague.

13 THE WITNESS: I'm sorry. Could you repeat  
14 the question?

15 THE COURT REPORTER: "QUESTION: Are you  
16 aware of any public health experts who specialize in  
17 issues regarding school health?"

18 THE WITNESS: Defining school health, some  
19 people would define it as the health of children,  
20 their breathing, their ability to run around or  
21 concentrate. Other people would define school health  
22 as ability to learn.

23 I do think there are experts that understand  
24 how conditions can affect children's ability to learn.  
25 I think there are other experts that help with

1 children's ability in other school performance.

2 I'm not aware of many experts that  
3 specifically look at unsanitary school conditions, as  
4 I described in the report, and their effect on  
5 children's health.

6 BY MR. SEFERIAN:

7 Q. In the report that you prepared for this  
8 case, did you make any assessment of the relationship  
9 between the conditions you describe in the report and  
10 children's ability to learn?

11 A. In my opinion in the report, I discussed some  
12 of the diseases that would cause children to miss  
13 school, one example being asthma. And it's estimated  
14 that children miss 10,000,000 school days annually  
15 because of asthma.

16 Another example of things that would  
17 interfere with children being able to attend school  
18 would be illnesses such as colds or other things that  
19 can result from overcrowding or extreme temperatures.

20 In my opinion, it would make sense for  
21 children's learning to be affected because of the  
22 missed school days as a result of, for example, asthma  
23 or other illnesses. That would be the extent of what  
24 I would feel an expert in, around children's learning.

25 Q. In this case, did you make any attempt to

1 quantify the relationship between any of the  
2 conditions described in your report and the amount of  
3 school days that public school children in California  
4 have missed?

5 A. I do not believe in the report I made an  
6 attempt to make such an estimate.

7 Q. In this case, did you make any attempt to  
8 assess how many school days California public school  
9 children miss due to asthma?

10 A. I don't believe that in the report I made  
11 such an estimate.

12 Q. With regard to any of the school-facility  
13 conditions that you mention in your report, did you  
14 make any attempt to quantify the relationship of how  
15 many school days were missed as a result of those  
16 conditions in California Public Schools?

17 MR. ELIASBERG: Asked and answered.

18 THE WITNESS: Again, I don't think in the  
19 expert report I made estimates of how many missed  
20 school days children would miss in California.

21 BY MR. SEFERIAN:

22 Q. In this case, did you attempt to examine any  
23 strategies to remediate substandard school-facility  
24 conditions?

25 A. My understanding of what the report was

1 asking me to do was to describe the health effects. I  
2 did not understand it to be part of my expert report  
3 to describe how to improve or remediate those  
4 conditions.

5 Q. Would it be correct to say that in this case  
6 you did not attempt to examine any strategies to  
7 remediate substandard school-facility conditions in  
8 California?

9 A. Though the report does not specifically  
10 address remediation strategies, I can think of at  
11 least one instance where I describe that these  
12 conditions lead to a lot of the substandard or  
13 unsanitary conditions described in the report that  
14 could be solutions for remediation. But, again, that  
15 was not considered part of the scope of the report.

16 Q. What was that instance that you just thought  
17 of?

18 A. For instance, trash disposal in a -- in a  
19 bathroom facility could encourage pest infestation.  
20 So that the implication would be that removing the  
21 trash in a timely manner would help with a given pest  
22 problem.

23 Q. In this case, will you be offering opinions  
24 regarding strategies to remediate substandard  
25 school-facility conditions?

1 A. Not that I'm aware of.

2 Q. I'd like to show you a document.  
3 (Exhibit 1 marked for identification.)

4 BY MR. SEFERIAN:

5 Q. Do you recognize the document that's been  
6 marked as Exhibit 1?

7 A. Yes.

8 Q. What is that document?

9 A. It's my C.V.

10 Q. Is the C.V. current, or are there any  
11 additions or changes that have occurred since the C.V.  
12 was prepared?

13 A. I think under Education I forgot to list my  
14 appointment to assistant professor.

15 I did list it in the expert report, but I  
16 forgot to list it on my C.V. My professional  
17 experience, I've been asked to be a member of the  
18 Board of Alliance to End Childhood Lead Poisoning.  
19 Under Selected Presentations, I was asked to give a  
20 talk at the National Center For Environmental Health  
21 at the CDC in November of 2002. The -- I believe some  
22 of the manuscripts and chapters-in-progress have  
23 been -- are published. Some of them are published.  
24 The number 3, Inner-City Asthma, was published in  
25 November of 2002. The Failure to Thrive chapter, I

1 believe, has been completed and is in publication,  
2 though I haven't received the copies of it yet. And  
3 then the other two manuscripts are still in progress.  
4 That's the best of my recollection.

5 Q. When were you appointed to assistant  
6 professor?

7 A. That was spring of 2002.

8 Q. What institution was that?

9 A. Boston University School of Medicine.

10 Q. You're a member of the Board of the Alliance  
11 to End Child Lead Poisoning?

12 A. I was asked to be a member sometime in the  
13 fall, either October or November, and then the board  
14 met in December. I wasn't able to attend that  
15 meeting, but my -- my appointment to the board was  
16 approved.

17 Q. What is that organization?

18 A. It's an advocacy organization that's based in  
19 Washington that basically, as the name states, is  
20 trying to end childhood lead poisoning through both  
21 advocacy within government, different agencies like  
22 the HUD or EPA or CDC, as well as it funds its own  
23 research projects into -- or community-based programs  
24 into trying to end childhood lead poisoning. They  
25 actually are contemplating a name change to the

1 Alliance For Healthy Homes, though I don't believe  
2 that that's official yet.

3 Q. What's your role with the National Center For  
4 Environmental Health?

5 A. I had met the director there, Dick Jackson,  
6 at multiple meetings where I had given presentations  
7 and he asked me to come down to the -- the National  
8 Center to give a grand rounds.

9 Q. Are you a member of any committees or boards  
10 or do you hold any positions in the National Center  
11 For Environmental Health?

12 A. No.

13 Q. Who published Inner-City Asthma?

14 A. It was the Immunology and Allergy Clinics of  
15 North America. It was a book with multiple  
16 manuscripts, and Inner-City, I believe, was the first  
17 chapter.

18 Q. What's the name of the publication?

19 A. I think that's literally the name, Immunology  
20 and Allergy Clinics of North America. It's not a  
21 monthly publication. I think they come out either  
22 annually or biannually.

23 Q. Do any of the publications listed in your  
24 manuscripts, Chapters in Progress on your C.V., relate  
25 to indoor environmental conditions in public schools?

1 Q. Looking at the second page of your C.V.,  
2 under the Publications section.

3 Other than the item number 3, There's No  
4 Place Like Home, do you see any other publications  
5 there wherein you discuss indoor environmental  
6 conditions in public schools?

7 A. No.

8 Q. In the Selected Presentations portion of your  
9 C.V., in any of the presentations listed there, did  
10 you specifically discuss indoor environmental  
11 conditions in schools?

12 A. Besides the one that I said I'd forgotten to  
13 list on there, no. I don't think so.

14 The one thing that I'll say is that -- again,  
15 the top two presentations, the child advocacy seminar  
16 and the day in the life of a child, those were panels  
17 that I was on of which we were discussing health  
18 conditions for kids. And, again, it was four or five  
19 years ago, but my memory is that some of that did  
20 include some schools. But, again, that was a panel  
21 presentation.

22 Q. What is the Merriman Award?

23 A. It's an award within Davenport College, which  
24 is one of the residential colleges at Yale University.  
25 It is an award for outstanding service.

1 A. The one that I had mentioned before, the -- I  
2 think it's number 3 on my publications -- is that  
3 There's No Place Like Home, was one I had mentioned  
4 previously that had a chapter on schools.

5 Under Selected Presentations it looks like I  
6 did not list a presentation that I gave in -- in -- I  
7 believe it was May 2002 on -- called In Harm's Way,  
8 which was sponsored by the Greater Boston Chapter For  
9 Physicians For Social Responsibility. I don't  
10 remember the panel topic, but schools was one of the  
11 topics on the panel.

12 Those are the two examples I can see.

13 Q. What was the topic of your presentation for  
14 the In Harm's Way?

15 A. We were talking about conditions that are  
16 found in the indoor environment, so we had a  
17 presentation on homes, presentation on schools, and a  
18 presentation on work environments -- actually,  
19 specifically, hospitals, and what hazards were found  
20 in -- in those three settings, three indoor  
21 environments.

22 Q. What does your presentation consist of?

23 A. My presentation was the home's part of it,  
24 because I was presenting research that had been  
25 conducted in Massachusetts on home conditions.

1 Q. How did you obtain that award?

2 A. It's awarded by the master of the residential  
3 college, which is the professor who lives within the  
4 residential college, and is nominated by fellow  
5 students.

6 Q. What is the Merck Award?

7 A. The Merck Award was for -- if my memory  
8 serves me, was for, again, outstanding service within  
9 the Dartmouth Medical School community.

10 Q. What do you mean when you say, "outstanding  
11 service"?

12 A. It was not specific to community service. I  
13 had actually won that award two years previously. It  
14 was more towards giving to the greater Dartmouth  
15 Medical School community, whether it be through  
16 teaching or other service. I was president of my  
17 student government during my fourth year of medical  
18 school.

19 Q. What is the Resident Teaching Award?

20 A. It's awarded to the senior resident. So, the  
21 most-graduate resident who is the best teacher to the  
22 interns, which is the first year of residency.

23 Q. Did you receive any academic honors or awards  
24 at Yale?

25 A. Not that I recall.

1 Q. Did you receive any academic honors or awards  
2 at Dartmouth?

3 A. Not that I recall.

4 Q. Did you receive any academic honors or awards  
5 at Boston University?

6 A. The Boston Combined Residency Program is  
7 Boston University and Boston Children's Hospital.  
8 Boston University's Medical Center is called, now,  
9 Boston Medical Center. And so it is a -- considered  
10 an academic award.

11 Q. How did you obtain that award?

12 A. It's voted on by all the members of the  
13 intern class within the residency program.

14 Q. Referring again to the second page of your  
15 C.V., in the Publication section, in which of those  
16 public cases did you discuss the effect of molds and  
17 allergens on children's health?

18 MR. ELIASBERG: Objection. Compound. Do you  
19 mean either in any publication, or both?

20 BY MR. SEFERIAN:

21 Q. In which of your publications have you  
22 discussed the relationship between molds and  
23 children's health?

24 A. For mold and child health we -- I don't  
25 believe discussed it in one directly, though again

1 recall whether or not we talked about allergens,  
2 specifically, or other effects on schools.

3 Q. Is publication number 3 on your C.V. a  
4 rewrite of publication number 2?

5 MR. ELIASBERG: Objection. Vague.

6 THE WITNESS: We considered it a second  
7 edition to which we were adding additional facts and  
8 changing some of the structure of it. Some of the  
9 content within the two reports is similar. But, as I  
10 mentioned, we added a chapter on schools and added  
11 some national information from the Department of  
12 Housing and Urban Development to show differences in  
13 housing conditions -- housing affordability across the  
14 country.

15 BY MR. SEFERIAN:

16 Q. In any of your publications did you discuss  
17 toxins in public schools?

18 A. I don't recall discussing toxins specifically  
19 from schools. I have discussed, in some  
20 presentations, toxins and their effect on children,  
21 but I don't recall specifically discussing schools.

22 Q. In any of your publications have you  
23 discussed children developing cancer later in life in  
24 response to carcinogens in schools?

25 A. I know that I discussed that in my expert

1 that was a while ago.

2 I am almost positive we discussed it in two  
3 and in three. Discussed it in five, in six and in  
4 seven, nine, I believe in ten.

5 And then in 11 we did discuss it more in an  
6 advocacy sense than directly. Advocacy in the sense  
7 of a child who was suffering because they were exposed  
8 to a lot of mold, and how to advocate to get the child  
9 out of that situation. So it a little bit indirectly  
10 talked about how it affected child's health.

11 Q. In any of the publications in your C.V., did  
12 you discuss allergens in public schools?

13 A. In many of them I discussed how allergens  
14 affect children's health, as I stated previously. I  
15 don't believe in many of them did I discuss it  
16 specifically coming from schools.

17 Q. Do you recall any of your publications where  
18 you specifically discussed allergens in public  
19 schools?

20 A. I'd have to review number 3, the one I had  
21 mentioned previously, There's No Place Like Home. I  
22 know that we did discuss, again, a chapter on schools.

23 That was the difference between two and  
24 three, was that we added -- or one of the differences  
25 was that we added a chapter on schools. But I don't

1 report. I do not recall having discussed that  
2 specifically in my publications.

3 Q. Have you taken any courses regarding health  
4 conditions in public schools?

5 A. I've taken public health courses that have  
6 dealt with urban environmental health and  
7 environmental epidemiology and intermediate  
8 toxicology, of which we have discussed, sometimes,  
9 environmental conditions in schools.

10 Q. Where did you take those courses?

11 A. At Boston University School of Public Health.

12 Q. Did you have any degrees in public health?

13 A. I have a Master's of Public Health.

14 Q. At Boston University School of Public Health,  
15 did you take any courses specifically relating to  
16 public school conditions -- public school-facility  
17 conditions?

18 A. As I mentioned, some of the courses that I  
19 took at times would mention public school conditions.  
20 I'm not aware that they offer an entire course in it.  
21 I may be -- I may be mistaken, but I'm not aware of an  
22 entire course on public school conditions.

23 MR. ELIASBERG: Counsel, it's been about an  
24 hour and 15 minutes. Could we just briefly go off the  
25 record and talk about what's the best lunch plan?

1 (Recess.)

2 BY MR. SEFERIAN:

3 Q. Dr. Sandel, did you have any discussions with  
4 Mr. Eliasberg about the deposition or this case in the  
5 break that we just took?

6 A. He asked me -- I guess one of the questions  
7 you had asked wasn't school-specific, but I had  
8 answered in kind of a school-specific way. And so he  
9 just wanted to make sure I was -- that the answer that  
10 I gave reflected what I -- what I thought. And I  
11 thought it was appropriate. I didn't really have any  
12 questions, myself, that I asked him.

13 Q. What question was that?

14 A. Oh, he asked me a question. But I didn't  
15 really have any questions about how any of the  
16 procedures -- I seemed to understand them this time  
17 around.

18 Q. What was the question that I asked you that  
19 was not school-specific?

20 A. Oh. It was -- I'm sorry. I didn't  
21 understand.

22 It was, "Are you aware of any public health  
23 experts on conditions that affect children's health?"  
24 And I had made it a school-specific question instead  
25 of just a general question.

1 A. His name is Dr. Joshua Sharfstein.

2 Q. Is Dr. Sharfstein a professor at Boston  
3 University?

4 A. He was a resident with me in the Boston  
5 Combined Residency Program.

6 Q. Did Dr. Sharfstein also graduate from the  
7 residency program in 1999?

8 A. Yes.

9 Q. What courses do you teach at Boston  
10 University?

11 A. Right now, I am teaching an adolescent health  
12 course at the Boston University School of Public  
13 Health. I am faculty on the Pediatric Environmental  
14 Health Fellowship, which is based out of Children's  
15 Hospital, but has teaching sites where I'm faculty in  
16 the -- at community-based organizations, and will  
17 eventually bring them to the Boston Public Health  
18 Commission. And I am a preceptor for a second year  
19 resident in the Boston Combined Residency Program.

20 Q. Is the only course that you're presently  
21 teaching at Boston University an adolescent health  
22 course?

23 A. At the Boston University School of Public  
24 Health, yes, that's the course I'm teaching right now.

25 Q. Have you ever taught any other courses at

1 But I thought it was still an appropriate  
2 question -- or answer.

3 Q. When did you complete your residency program?

4 A. That was the end of June of 1999.

5 Q. Can you describe the combined residency  
6 program at Boston Medical Center and Children's  
7 Hospital?

8 A. You spend about 50 percent of your time at  
9 both institutions, so I did both inpatient and  
10 outpatient rotations at Boston Medical Center, which  
11 is the Boston University institution, and Boston  
12 Children's Hospital.

13 Q. What was the focus of your residency?

14 A. It's interesting. Residency doesn't tend to  
15 have concentration or focus. I did do a fair amount  
16 of research during residency, so I spent a lot of my  
17 elective time doing either research projects or  
18 writing reports, as listed in my C.V.

19 Q. Was your residency focused in any particular  
20 area of medicine?

21 A. If I could characterize it, I would say that  
22 it was in doing research into how the indoor  
23 environment affects kids' health -- would be, I guess,  
24 a way to characterize what I focused on.

25 Q. Who was your coauthor for Not Safe At Home?

1 Boston University School of Public Health, other than  
2 the adolescent health course?

3 A. No. I -- I just graduated in -- in May of  
4 this past year.

5 Q. Does the adolescent health course you teach  
6 at Boston University School of Public Health in any  
7 way focus on conditions in school facilities?

8 A. We have the students placed in different  
9 experiences with adolescents, one of which is in a  
10 public school in the City of Boston. We let the  
11 students choose different public health concerns about  
12 adolescents, some of which have included diseases that  
13 can be made worse by school conditions, but we don't  
14 have, right now, a specific lecture dedicated to  
15 school conditions.

16 Q. How do the student placements work?

17 A. We ask students to rank which placement they  
18 would like. We offer four, one of which is  
19 school-based, one of which is after-school based, one  
20 of which is health-center based, and one of which is a  
21 so-called teen-tot clinic -- a teenage parenting  
22 clinic.

23 And we -- depending on the students' ranking,  
24 assign them -- we assign six students to go to East  
25 Boston High School to attend one of their -- they have

1 a health track at East Boston High School, so these  
2 students will go and talk with the students at East  
3 Boston.

4 Q. Do the students placed in the adolescent  
5 health course document school-facility conditions as a  
6 regular part of the course?

7 MR. ELIASBERG: Objection. Vague.

8 THE WITNESS: The structure of the  
9 interaction in the schools is for the students to find  
10 out what the public school students are concerned  
11 about. It can sometimes be environmental, things that  
12 the public health school students are concerned about.  
13 And that would drive whether or not they would do a --  
14 a survey of the school conditions.

15 BY MR. SEFERIAN:

16 Q. Have any of the students in your adolescent  
17 health course conducted any surveys of public school  
18 conditions?

19 A. We just started the semester in January --  
20 beginning of January, so they -- they actually haven't  
21 been out to the schools yet. But I believe in past  
22 years students have done environmental health  
23 assessments.

24 Q. Were you ever an instructor at Boston  
25 University before this January?

1 A. Do you mean instructor in a course?

2 Q. Yes.

3 A. Or do you mean an academic appointment of an  
4 instructor?

5 Q. Both.

6 A. This is the first class that I've taught at  
7 Boston University School of Public Health. As I  
8 mentioned previously, I was a student up until May and  
9 so this is a -- I'm on my first opportunity. And then  
10 I actually -- my first academic appointment was to  
11 assistant professor. I skipped over the instructor  
12 appointment.

13 Q. Are you currently director of the Doc4Kids  
14 project?

15 A. Yes. I am currently the director.

16 Q. What are your duties as director of the  
17 Doc4Kids project?

18 A. We have a report that's available on the  
19 internet with an e-mail address that we can be  
20 contacted through. And we get e-mails from people who  
21 are interested in the report, would like more copies  
22 of the report, are interested in what further research  
23 we've done -- and so I am responsible for those calls  
24 and e-mails.

25 Q. What is the Doc4Kids project?

1 A. It was started by Dr. Joshua Sharfstein and  
2 myself while we were writing the initial report, Not  
3 Safe At Home. And we had basically continued it as a  
4 way to try and network with other people who were  
5 interested in the indoor environment and children's  
6 health.

7 Q. Would you say that the focus of the Doc4Kids  
8 project, in terms of the indoor environment and  
9 children's health, has focused on housing conditions?

10 A. I would characterize it that the -- the  
11 Doc4Kids project focuses on housing conditions, in  
12 that those conditions affect children's health. That  
13 was in its initial focus. I think that, over time,  
14 it's become clear to me that those conditions exist in  
15 many places and can affect children in many places.

16 Q. So the initial focus of the Doc4Kids project  
17 was on the indoor environmental conditions as they're  
18 related to children's housing, correct?

19 A. I would say that we found these conditions to  
20 be present in housing and wanted to characterize how  
21 they affected kids' health, and looked initially --  
22 predominantly at housing as sources of those  
23 conditions.

24 Q. What is the Family Team?

25 A. The Family Team is a multi-disciplinary team

1 at Boston Health Care For the Homeless Program, which  
2 consists of myself as a pediatrician, a nurse  
3 practitioner, and -- actually two nurse practitioners  
4 and two other nurses, four case managers, and a  
5 nutritionist and various mental-health professionals.

6 Q. How does the Doc4Kids project receive its  
7 funding?

8 A. It's a small project that has basically been  
9 continued by myself. As I mentioned, the -- we have  
10 a -- our report -- the first report available online  
11 through the Boston Child Health Foundation. And so  
12 that I would characterize the project as continuing to  
13 try and continue to -- to look at environmental health  
14 in children, though most of its activities really are  
15 related to myself and the activities that I do.

16 Q. Are there any other people currently working  
17 on the Doc4Kids project, other than yourself?

18 A. Most of the people that were originally part  
19 of it have graduated from residency, and so that it's  
20 basically a continuation in terms of the report and  
21 keeping the report available. And then trying to  
22 create as much of an environment at Boston Medical  
23 Center to try and continue those activities.

24 Q. As of this time, are there any other people  
25 working actively on the Doc4Kids project, other than



1 you?

2 A. No.

3 Q. How does the Family Team receive its funding?

4 A. Boston Health Care For the Homeless Program  
5 is listed as a federally funded health center, and it  
6 works both by having hospital-based clinics at  
7 different hospitals in Boston, as well as doing  
8 outreach at shelters to provide health care in a  
9 shelter setting, which is predominantly what the  
10 Family Team does.

11 And, also, they have a respite program that  
12 they run for people who are not sick enough to be in a  
13 hospital setting, but not particularly well enough to  
14 be on the street or in a shelter setting.

15 Q. Does the Family Team perform any services in  
16 public schools?

17 A. We've given talks to public school nurses  
18 around children who are homeless and their medical  
19 needs. The Family Team has also conducted surveys of  
20 environmental conditions in homeless shelters.

21 Q. Has the Family Team conducted any surveys of  
22 environmental conditions in public schools?

23 A. Not that I'm aware of.

24 Q. Are you still a director of the Child  
25 Protection Team?

1 Q. What do you do in that regard? Are you still  
2 the medical director?

3 A. No. I am -- I continue to work with them  
4 around education, outreach -- and this year I have too  
5 many commitments and had to step down from medical  
6 director, though hopefully next year I may be able to  
7 come back as medical director. And sometimes I'll do  
8 some case consultation for them.

9 Q. Do any of the Family Advocacy Program's  
10 activities relate to public school-facility  
11 conditions?

12 A. I'm not sure. I know that one of the  
13 attorneys has a lot of contact with the schools which  
14 may include some public school facilities.

15 Q. Which attorney is that?

16 A. Her name is Pamela Tames, T-A-M-E-S.

17 Q. Are you still on the executive committee of  
18 the Asthma Regional Coordinating Council?

19 A. Yes.

20 Q. What are your duties as a member of that  
21 executive committee?

22 A. We tend to meet on a monthly to bimonthly  
23 basis, discussing certain decisions about the council  
24 such as council membership, next meetings,  
25 fundraising, as examples.

1 A. No.

2 Q. What is the Child Protection Team?

3 A. It's a team of social workers, psychologists,  
4 doctors, and nurses trying to help doctors or health  
5 professionals, really, within the hospital setting  
6 around child abuse -- both physical and sexual abuse,  
7 and child-abuse evaluation.

8 Q. Are any of the Child Protection Team's  
9 activities related to public school-facility  
10 conditions?

11 A. Not that I'm aware of.

12 Q. What's the Family Advocacy Program?

13 A. The Family Advocacy Program is a  
14 medical-legal collaboration where the hospital has  
15 hired attorneys to be on staff at the hospital to  
16 provide legal consultation to our patients around some  
17 of their legal needs, as it pertains to their health.

18 An example would be a child who is having  
19 problems in school and is not getting the appropriate  
20 services that they're eligible for. We may get a  
21 lawyer involved from the Family Advocacy Program to  
22 help that child get the services they're eligible for.

23 Q. Are you still affiliated with the Family  
24 Advocacy Program?

25 A. Yes.

1 Q. Are you a member of any medical partnerships?

2 A. Can you define "medical partnerships"?

3 Q. Well, are you affiliated with any -- any  
4 hospitals?

5 A. I have privileges at Boston Medical Center  
6 and Boston Children's Hospital.

7 Q. Do you see patients at any other locations  
8 besides Boston Medical Center and Boston Children's  
9 Hospital?

10 A. I currently see patients at Boston Medical  
11 Center. My privileges at Children's are courtesy  
12 privileges. I used to do some moonlighting there, but  
13 I stopped.

14 And I see children and families in homeless  
15 shelters as part of my medical care.

16 Q. Have you ever seen patients in a public  
17 school?

18 A. I have not medically examined children in a  
19 public school, recently. I did in medical school, but  
20 that was a long time ago.

21 Q. Did you -- do you see patients in any type of  
22 private medical office?

23 A. No.

24 Q. What do you consider to be your areas of  
25 expertise?

1 A. I consider myself to be an expert in how the  
2 indoor environment affects children's health.

3 Q. Are all the patients you see at Boston  
4 Medical Center pediatric patients?

5 A. Yes. I see both patients in the Pediatric  
6 Clinic and the Adolescent Clinic, and so I do have  
7 patients that are in there early 20s, sometimes mid  
8 20s. So I can have, you know, patients from birth up  
9 through that age range.

10 Q. What portion of your time is spent examining  
11 patients, as opposed to your work with Boston  
12 University?

13 A. This academic year, starting from July 2002  
14 through July 2003, I spend 40 percent of my time  
15 examining patients at Boston Medical Center. I spend  
16 approximately 40 percent of my time examining patients  
17 in shelter settings, and I spend 20 percent of my time  
18 doing research.

19 Q. So would it be accurate to say that  
20 approximately 80 percent of your time is spent  
21 examining treating patients and 20 percent is spent  
22 doing research?

23 A. For this academic year, yes.

24 Q. What do you anticipate will be the case  
25 starting in July of 2003? Will there be any

1 A. Yes.

2 Q. Did you have any talks with Mr. Eliasberg or  
3 anyone else about this deposition or this case during  
4 our lunch break?

5 A. No. Just Mr. Eliasberg and myself were  
6 discussing the case at lunch.

7 Q. What did you discuss with Mr. Eliasberg about  
8 the case at lunch?

9 A. I asked him questions, just background, about  
10 the case like, "How many experts do you have?" and,  
11 "How many lawyers are working on it?" because I'm not  
12 that familiar with the overall case.

13 Q. Did you ask Mr. Eliasberg any other questions  
14 besides how many experts did he have and how many  
15 lawyers did he have working on the case?

16 A. Not that I recall. Those are the general  
17 types of questions I asked.

18 Q. Did you discuss anything else about the case  
19 during lunch?

20 A. No.

21 Q. Would you agree that you have not published  
22 any scientific studies that show a specific public  
23 school's students becoming ill as a result of  
24 school-facility conditions?

25 MR. ELIASBERG: Objection. Vague.

1 difference in the amount of time you spend examining  
2 patients as opposed to performing research?

3 A. I should spend -- come July 2003, 40 percent  
4 of my time clinically, and 60 percent of my time  
5 research.

6 Q. What is that the result of?

7 MR. ELIASBERG: Objection. Vague.

8 THE WITNESS: I went through medical school  
9 on a National Health Service Corp Scholarship, as is  
10 says in my C.V. Part of that scholarship was repaid  
11 through my pediatric fellowship that I did from 1999  
12 to 2002. And then I have one more year of clinical  
13 payback to the government, working with under-served  
14 populations, which is the full-time 80 percent  
15 clinical time that I'm doing for this academic  
16 calendar year.

17 And then I have grant funding to support  
18 myself to cut back some of that clinical time, come  
19 July 2003.

20 MR. ELIASBERG: Is this a good time to break?

21 MR. SEFERIAN: Okay.

22 (Noon recess.)

23 BY MR. SEFERIAN:

24 Q. Dr. Sandel, do you realize you're still under  
25 oath?

1 THE WITNESS: I would say that I have mostly  
2 published articles about how specific conditions make  
3 children or may make children sick. Most of those  
4 articles have focused on home conditions or the  
5 specific conditions being found in the home setting.  
6 But, as I've mentioned in previous answers, it's my  
7 contention that these conditions, when they exist in  
8 schools, can be just as detrimental.

9 MR. POULOS: I object. Move to strike on the  
10 ground that the answer is not responsive.

11 BY MR. SEFERIAN:

12 Q. Have any of your articles focused on those  
13 conditions specifically in school facilities?

14 A. Most of my articles have not specifically  
15 zeroed in on schools as the source of those  
16 conditions.

17 Q. Have any of your publications specifically  
18 zeroed in on schools as a source of conditions that  
19 affect children's health?

20 A. Most of my articles have focused on  
21 conditions that can potentially make children sick.  
22 Most of these articles have focused on homes being the  
23 source of those conditions and have not specifically  
24 mentioned schools.

25 Q. Have you conducted any studies that have

1 assessed the effects on children of exposed --  
2 exposure to indoor environmental conditions in schools  
3 as compared with the effects of exposure to the same  
4 conditions in their home?

5 MR. ELIASBERG: Objection. Vague and  
6 ambiguous.

7 THE WITNESS: Most of my studies have been  
8 looking at these conditions in the home setting. I  
9 have not done specific studies to compare exposures in  
10 the home with exposures in the school.

11 BY MR. SEFERIAN:

12 Q. Are you aware of any studies that  
13 specifically assess the effects on children of  
14 exposure to indoor environmental conditions in schools  
15 and compare those effects of exposure to the same  
16 conditions in the children's home?

17 A. I'm aware of studies, some of which I cite in  
18 my expert report, that will show similar conditions in  
19 the home and in the school. There are other studies  
20 which will make the connection between those  
21 conditions being associated with making children sick.  
22 I'm not aware of studies that do both together.

23 Q. As you sit here today, do you recall any of  
24 the studies that were cited in your report that  
25 discuss conditions similar in the home and the school

1 allergy, per se, but an irritation that may result in  
2 other health manifestations, so that you'd have to  
3 make individual estimates about all of those potential  
4 effects, also.

5 So it's a complicated estimate.

6 Q. Have you made that complicated estimate in  
7 this case?

8 A. It was -- in my opinion, it was not within  
9 the scope of my report to make specific estimates of  
10 the number of children. My understanding was to  
11 explain that if these conditions did exist that there  
12 would be harm for children.

13 Q. In this case, do you have any estimate about  
14 the number of students in California Public Schools  
15 who have actually become ill in the last five years as  
16 a result of mold in their school?

17 MR. ELIASBERG: Asked and answered.

18 THE WITNESS: I'd have to say, again, it's a  
19 complicated estimate to make. It -- I would need more  
20 information to make that estimate, and that it would  
21 require some assumptions, but that the -- I believe  
22 that the extent could be substantial, given all the  
23 ways that mold can affect health.

24 MR. SEFERIAN: Would you read that answer,  
25 please.

1 location?

2 A. Some of the studies that I recall, for  
3 example, some that are in the expert report, include  
4 chapters in the Clearing the Air book. There was an  
5 article looking at types of molds found in homes and  
6 schools -- another study that looked at amount of  
7 cockroach allergen found in homes and schools.

8 Q. Do you have any opinion about the number of  
9 students in California Public Schools who have become  
10 ill in the last five years as a result of mold in  
11 their school?

12 A. My opinion is that I believe there to be mold  
13 present in some California schools to the point that  
14 can potentially make children sick. Without being  
15 given certain estimates about number of children,  
16 extent of specific mold damage -- it's difficult for  
17 me to come up with an exact number of children who  
18 have been affected by mold.

19 I think that it's also important to note that  
20 mold can affect children in multiple, different ways  
21 so that molds can potentially cause allergic  
22 reactions. They can potentially, in certain cases,  
23 cause people to be infected with mold. In other  
24 cases, children can suffer the effects of certain  
25 toxins from mold or irritation from mold, not an

1 THE COURT REPORTER: "THE WITNESS: I'd have  
2 to say again it's a complicated estimate to make.  
3 It -- I would need more information to make that  
4 estimate, and that it would require some assumptions,  
5 but that the -- I believe that the extent could be  
6 substantial, given all the ways that mold can affect  
7 health."

8 BY MR. SEFERIAN:

9 Q. I understand that it's a complicated  
10 estimate. What I'm asking is, as you sit here today,  
11 do you have any estimate about the number of students  
12 in California Public Schools who have become ill in  
13 the last five years as a result of mold in their  
14 school?

15 MR. ELIASBERG: Asked and answered.

16 THE WITNESS: Well, an example of a piece of  
17 the estimate that could be done would be to say that  
18 an estimated 10 percent of kids have asthma in the  
19 State of California.

20 That may be a conservative estimate, given  
21 the fact that there is data to suggest that there are  
22 concentrations where more than 10 percent of kids have  
23 asthma, especially in predominantly poor or  
24 predominantly minority neighborhoods.

25 Given the fact that about 10 percent of kids

1 have asthma, some studies have suggested that 20  
2 percent of children and adults have a mold allergy.

3 So that -- and a piece of the estimate, given  
4 those assumptions, would be that 20 percent of kids  
5 with asthma could have potentially been made sick if  
6 exposed to mold in their classrooms.

7 MR. SEFERIAN: Could you read that answer,  
8 please?

9 (Mr. Seferian reads answer from court  
10 reporter's computer screen.)

11 BY MR. SEFERIAN:

12 Q. Have you performed the work in this case to  
13 estimate the number of students in California Public  
14 Schools who have actually become ill in the last five  
15 years as a result of mold in their school?

16 A. I have not been asked to create that number,  
17 and so I have not made an estimate of the number of  
18 children who have been sick as a result of mold in  
19 their schools.

20 As I stated previously, it may be possible to  
21 create that number, but it would require more  
22 information with more assumptions to -- to make that  
23 estimate.

24 Q. What information and what assumptions would  
25 be required for you to estimate the number of students

1 total number of children for each of those four areas.  
2 It would require looking at the estimated prevalence  
3 of all of those types of conditions. And it would  
4 also require the number of schools that had visible  
5 mold or mold odor where the children would be  
6 potentially exposed.

7 That's one example of how you could come up  
8 with such an estimate.

9 Q. Have you performed that work in this case?

10 MR. ELIASBERG: Asked and answered.

11 THE WITNESS: No. I have not.

12 BY MR. SEFERIAN:

13 Q. Do you have any opinion about the number of  
14 students in California Public Schools who have become  
15 ill as a result of allergens in their school in the  
16 last five years?

17 A. As I stated previously, I was not asked to do  
18 any of those types of estimates. As was previously  
19 described, there are some methods that such estimates  
20 could be made, but since I was not asked to do so, I  
21 did not do that.

22 Q. Would it be fair to state that you do not  
23 have any opinion about the number of students in  
24 California Public Schools who have become ill in the  
25 last five years as a result of any of the conditions

1 in California Public Schools who have become ill in  
2 the last five years as a result of mold in their  
3 school?

4 A. So I gave you one example of children  
5 being -- with asthma being allergic and -- to mold and  
6 being exposed in their school, which one can assume  
7 would cause them to have more asthma attacks and  
8 potentially miss more school.

9 Another example of children being allergic  
10 would be that they would suffer from what's called  
11 allergic rhinitis or, basically, allergies within the  
12 nose that may also make them sick, as described in  
13 previous answers.

14 You can also take into account children  
15 becoming sick from infections with mold, which can  
16 include both pulmonary infections in certain cases and  
17 skin infections.

18 Third, there's some toxigenic effects that  
19 can happen in the body that can be manifested in lung  
20 and other effects such as headaches.

21 And then thirdly -- I mean fourthly, there is  
22 an irritation that mold can sometimes cause that also  
23 can result in respiratory and nasal and headache or  
24 fatigue in the school setting.

25 What it would require would be to look at the

1 in their school that are discussed in your report?

2 A. No. I think I do have an opinion.

3 I think my expert testimony states that I do  
4 think that children are becoming sick as a result of  
5 their conditions in the schools.

6 Q. Do you have any estimate about the number of  
7 students in California Public Schools who have become  
8 ill in the last five years as a result of any of the  
9 conditions discussed in your report in the children's  
10 schools?

11 A. My understanding of the scope of my expert  
12 report was to describe the effects of the conditions  
13 as they would pertain to child health. My scope of  
14 the report was not to estimate or quantify those  
15 effects.

16 Q. Did you do any work to verify the results or  
17 findings of any of the studies or reports that you  
18 cited or reviewed in this case?

19 MR. ELIASBERG: Objection. Vague and  
20 overbroad.

21 THE WITNESS: The type of verification that I  
22 generally do with sources is to find the same  
23 information in other sources for most of the  
24 citations. I -- I felt I could find this similar  
25 information in multiple places. That is what I would

1 consider adequate verification.  
 2 BY MR. SEFERIAN:  
 3 Q. In this case, when you found another source  
 4 that verified the same information did you cite that  
 5 source in your report?  
 6 A. I think I tried to be as extensive with my  
 7 sources as possible. There are some instances where I  
 8 may have only listed one source for a given statement,  
 9 but many of the sources in my bibliography also may  
 10 verify other points that I may not have specifically  
 11 put next to a given statement, itself.  
 12 Q. In this case, have you prepared any  
 13 scientifically-verifiable analysis of how many  
 14 California Public School students have suffered or  
 15 will suffer long-term health effects caused by  
 16 facility conditions in California Public Schools?  
 17 MR. ELIASBERG: Asked and answered.  
 18 THE WITNESS: No. It was not in the scope of  
 19 my report to estimate long-term health effects of  
 20 substandard conditions in California schools.  
 21 BY MR. SEFERIAN:  
 22 Q. Do you have any estimate about the number of  
 23 California Public Schools that have mold?  
 24 A. It wasn't within the scope of my report to --  
 25 to prove that there were these conditions in the

1 schools. It was an assumption on my part, given some  
 2 of the reports that I cited in, I think, the first  
 3 section of my report.  
 4 So it's difficult for me to make a specific  
 5 estimate of the number of schools that have mold.  
 6 Q. Do you have any opinion about the number of  
 7 California Public Schools that have allergens,  
 8 chemicals, toxins, inadequate ventilation, lead,  
 9 biologic hazards, excessive heat, or pest infestation?  
 10 MR. ELIASBERG: Objection. Compound.  
 11 THE WITNESS: In my review of some of the  
 12 documents in my expert report, I believe those  
 13 conditions that you listed are present in the schools,  
 14 though, again, that's not what I am testifying to as  
 15 an expert. I am simply describing the health effects  
 16 if those conditions are present.  
 17 BY MR. SEFERIAN:  
 18 Q. Would it be accurate to say that there are  
 19 not any specific California Public Schools about which  
 20 you have the opinion that mold or any of the other  
 21 facility conditions that you described have caused  
 22 student illness?  
 23 A. No.  
 24 I would say that though it is difficult to  
 25 comment on any specific school, that from the review

1 of the -- some of the documents that I cited in my  
 2 expert report, that these conditions are present in  
 3 some California schools.  
 4 Q. As you sit here today, can you name any  
 5 specific California Public Schools about which you  
 6 have the opinion that mold or another facility  
 7 condition has caused illness to student or students at  
 8 that school?  
 9 A. Well, as I mentioned previously, my brother  
 10 was a teacher at an elementary school in Oakland. He  
 11 described to me the fact that water came into the  
 12 school every time it rained through gaps in windows,  
 13 ceiling, and poor -- or what seemed like leaking  
 14 roofs -- that there was one bathroom facility for boys  
 15 and one for girls for nine hundred students, and he  
 16 described overflow of trash in that school. And he  
 17 described an episode of no heat for many days in a  
 18 row, and that all of those, in his opinion, could be  
 19 tied to kids potentially being sick.  
 20 Q. In your brother's opinion?  
 21 A. In my brother's opinion.  
 22 Q. Is your brother a medical doctor?  
 23 A. No.  
 24 Q. What is your brother's name?  
 25 A. Rowen, R-O-W-E-N, Sandel, S-D-N-D-E-L.

1 Q. Where is your brother currently working?  
 2 A. He is currently working at a restaurant  
 3 during the day -- or during the day and nights. And  
 4 then he's writing the "great American novel" in his  
 5 spare time.  
 6 Q. What city does he live in?  
 7 A. San Francisco.  
 8 Q. Your brother described those conditions to  
 9 you regarding Highland School?  
 10 A. Yes.  
 11 Q. Are there any other -- I'll withdraw that.  
 12 Other than Highland School in Oakland, are  
 13 there any specific California Public Schools about  
 14 which you have the opinion that mold or other facility  
 15 conditions mentioned in your report has caused  
 16 students' illness?  
 17 A. I'll say it again, that it is difficult for  
 18 me to talk about specific conditions in specific  
 19 schools, but that from reviewing larger documents  
 20 about the State of California and its school  
 21 conditions, I believe those conditions to be present  
 22 in some California schools.  
 23 Q. What would you need to do, as a researcher,  
 24 to show to a reasonable medical probability that a  
 25 particular student became ill as a result of mold

1 present in his or her school?

2 MR. ELIASBERG: Objection. Vague.  
3 Overbroad. Incomplete hypothetical. Ah, strike the  
4 last one.

5 THE WITNESS: I think that there are two ways  
6 to answer that question:

7 I think the first is, as a researcher, one  
8 would want to look at the children's potential  
9 exposures and the potential ways that a child could  
10 become sick as a result of them.

11 As a doctor treating a child who is sick, I  
12 think that you would also want to look at those same  
13 types of questions.

14 A researcher may want to do more intensive  
15 analysis of the environment, whereas a doctor may  
16 simply take a history and feel confident in certain  
17 exposures to then decide how to treat a patient.

18 BY MR. SEFERIAN:

19 Q. As a researcher, if you wanted to show to a  
20 reasonable medical probability that a particular  
21 student became ill as a result of mold or another  
22 facility condition, would you want to examine the  
23 school facility were that student was attending?

24 MR. ELIASBERG: Vague and ambiguous.  
25 Incomplete hypothetical.

1 of different ways to show probability that a child is  
2 becoming sick as a result of a condition in their  
3 school.

4 One example would be that a child is well  
5 during a school vacation when a child's not exposed to  
6 the school environment.

7 Another example would be that after a certain  
8 condition was removed from the school that a child's  
9 health improved.

10 A third would be that a child transferred to  
11 a different school setting where this condition was  
12 not present.

13 Those are three examples of ways that one  
14 could feel confident that a given condition could make  
15 someone sick.

16 BY MR. SEFERIAN:

17 Q. In order to feel confident that a given  
18 condition made a student or groups of students sick,  
19 would one also need to examine the condition at the  
20 school to find out the nature and the extent,  
21 location, duration of that condition?

22 MR. ELIASBERG: Objection. Compound.

23 THE WITNESS: Generally, one would want to  
24 define a certain condition or exposure, but that --  
25 many times that condition or exposure can be easily

1 THE WITNESS: In my opinion, a single  
2 child -- in examining their exposures, you would want  
3 to evaluate their conditions in as systematic a way as  
4 possible.

5 You can also examine those same conditions in  
6 how they affect large groups of kids, and be able to  
7 draw conclusions about how those children could  
8 potentially become sick, also.

9 I think in -- trying to determine whether or  
10 not a specific child is sick can be complicated by  
11 meeting a lot of, again, information to decide whether  
12 or not you decide -- whether or not you assign a  
13 certain amount of certainty to a specific outcome.

14 But, again, I think that it can be studied in  
15 multiple, different ways in a school setting to  
16 determine whether an individual child is sick.

17 BY MR. SEFERIAN:

18 Q. What work would you need to do, as a  
19 researcher, to show to a reasonable medical  
20 probability that a particular school and,  
21 specifically, mold on that school was causing illness  
22 to the students at that school?

23 MR. ELIASBERG: Objection. Vague as to  
24 "cause."

25 THE WITNESS: I think that there are a couple

1 identified through visual inspection or through  
2 report.

3 BY MR. SEFERIAN:

4 Q. Do you consider yourself to be an expert in  
5 the field of public health?

6 A. I consider myself to be an expert in how the  
7 indoor environment affects children's health.

8 Q. Do you consider yourself to have expertise  
9 with regard to molds that are prevalent and grow in  
10 California?

11 MR. ELIASBERG: Objection. Vague.

12 THE WITNESS: I believe that there are  
13 specific species of molds that are present throughout  
14 the United States and may be in different proportions  
15 in different regions of the country.

16 BY MR. SEFERIAN:

17 Q. Do you have any opinions regarding whether  
18 certain species of mold are present in greater  
19 proportions in California than in other regions of the  
20 country?

21 A. It's my opinion that California is a large  
22 state; and so that to characterize the most southern  
23 part of California and the northern part of  
24 California, which may have different climates, will  
25 have different molds, just like in different seasons

1 there are different molds that may be more prevalent.

2 I believe I cite in my expert report a study  
3 done in California that characterized types of molds  
4 that are found in California in schools.

5 Q. As you sit here today, do you have any  
6 opinion about whether there are certain specific  
7 species of mold that are more-or-less prevalent in  
8 Southern California or Northern California?

9 A. My opinion is that there can be variability  
10 in what species of mold grow in schools, depending on  
11 temperature, relative humidity, and water exposure.  
12 So that each given condition would determine which  
13 mold species would be more-or-less likely to grow. So  
14 that region of the state only plays one part in many  
15 to determine which species of mold would grow.

16 Q. And in this case, did you make any  
17 assumptions or determinations about which species of  
18 mold are prevalent in California Public Schools?

19 A. In preparing this report I did not address  
20 specific mold species, and I addressed mold as -- as a  
21 health hazard in total.

22 Q. Do different species of mold pose different  
23 health risks to children?

24 A. There are thought to be different thresholds  
25 for different molds where children can potentially

1 units."

2 BY MR. SEFERIAN:

3 Q. Which research project are you referring to?

4 A. It's a research grant that I listed on my  
5 C.V., called the Boston Healthy Homes Partnership,  
6 which is a study conducted in Boston homes, funded by  
7 Department of Housing and Urban Development.

8 Q. In this case, were you asked to undertake any  
9 effort to visibly quantify the amount of mold in any  
10 particular California Public School or classroom or  
11 across the state, generally?

12 A. I was asked in my expert report to address  
13 the effects of mold if it were present in schools. I  
14 was not asked to quantify amount of mold.

15 Q. If you were going to determine the effects of  
16 mold in any particular school, for example, would one  
17 of the pieces of information you want to have be for  
18 you to visibly quantify the number of square feet of  
19 mold in that school or classroom?

20 A. I'm sorry. Can you repeat that question?

21 THE COURT REPORTER: "QUESTION: If you were  
22 going to determine the effects of mold in any  
23 particular school, for example, would one of the  
24 pieces of information you want to have be for you to  
25 visibly quantify the number of square feet of mold in

1 have ill effects. And there are some molds that are  
2 more toxigenic -- meaning, producing toxins -- than  
3 others that have been linked with more severe health  
4 effects in children.

5 Q. In this case, why did you not address in this  
6 report specific mold species in California and their  
7 prevalence in California Public Schools?

8 A. In other discussions with researchers in mold  
9 or in other public health researchers, speciation of  
10 mold has not been deemed to be as useful in  
11 association with health effects as visibly quantifying  
12 amount of mold.

13 Q. What do you mean when you say, "visibly  
14 quantifying"?

15 A. Most research studies, including the one that  
16 I'm conducting, will quantify number of square feet of  
17 affected area contaminated with mold as a relative  
18 amount of burden of mold, versus speciating number of  
19 colony-forming units.

20 Q. Will you please read that answer.

21 THE COURT REPORTER: "ANSWER: Most research  
22 studies, including the one that I'm conducting, will  
23 quantify number of square feet of affected area  
24 contaminated with mold as a relative amount of burden  
25 of mold, versus speciating number of colony-forming

1 that school or classroom?"

2 THE WITNESS: If there was visible mold  
3 present or, as I mentioned previously, a smell of mold  
4 in a school, then my feeling would be that there could  
5 potentially be enough mold to make certain children  
6 sick, though there may be a heavier burden of mold  
7 given more square feet of affected area, and that the  
8 more mold present could potentially make more children  
9 sick.

10 I think that may be important, but it would  
11 be my contention that, really, any visible mold or  
12 mold smell has the potential to make some children  
13 sick.

14 BY MR. SEFERIAN:

15 Q. Do you consider yourself to have expertise  
16 with regard to the allergens that are present in  
17 California?

18 A. I consider myself to be an expert on how some  
19 allergens will affect children if they're exposed to  
20 them in the indoor environment. Some examples include  
21 pest allergens such as cockroaches or a mouse, as  
22 examples of allergens that I'm familiar with that I  
23 believe to be present in California schools.

24 Q. And the basis of your belief that these  
25 allergens and the other facility conditions mentioned

1 in your report are present in California Public  
2 Schools is based upon the materials -- the written  
3 materials that you were asked to review in this case,  
4 correct?

5 A. They were based on some of the reports that I  
6 cited in my expert report, some of which are  
7 publically available, some of which I requested.

8 Q. You have not conducted any independent study,  
9 yourself, to determine the extent to which the  
10 facility conditions mentioned in your report are  
11 present in California Public Schools, correct?

12 MR. ELIASBERG: Objection. Vague.

13 THE WITNESS: My scope of my expert report  
14 was to determine the effects of conditions, if they  
15 were present in the California Public Schools. It was  
16 not within the scope of my report to independently  
17 verify those conditions.

18 BY MR. SEFERIAN:

19 Q. In this case, were you provided any  
20 information regarding different weather conditions in  
21 California?

22 A. Some of the reports that I reviewed described  
23 extremes in temperature in California Public Schools.

24 Q. In this case, did you review any information  
25 regarding the climate in different portions of

1 California and California weather patterns?

2 A. I did not review documents that specifically  
3 just dealt with weather conditions. But, as  
4 mentioned, I did review some descriptions of extremes  
5 in temperature and humidity in California schools.

6 Q. How many patients do you have?

7 MR. ELIASBERG: It's vague. You mean  
8 currently or ever?

9 BY MR. SEFERIAN:

10 Q. How many patients do you see in a typical  
11 week?

12 A. I have four sessions, hospital-based, to  
13 which I'll see approximately eight to ten patients a  
14 session. I will go to four to five shelters a week  
15 and we'll see anywhere from probably a minimum of four  
16 patients to sometimes I'll see 16 or 17 patients  
17 during a session. There are also many patients that  
18 are in my practice that I don't see on a regular  
19 basis.

20 Q. Do you consider yourself to be an expert in  
21 the field of pediatrics?

22 A. I'm a board-certified pediatrician and I'm a  
23 practicing pediatrician.

24 Q. Do you have a medical license in any other  
25 states besides Massachusetts?

1 A. No.

2 Q. What expertise allowed you to become  
3 certified by the National Board of Medical Examiners?

4 A. The National Board of Medical Examiners  
5 conducts three different tests during your medical  
6 school and residency.

7 The first is at the end of your second year,  
8 generally; the second is at the end of your fourth  
9 year, generally; and the third is somewhere in the  
10 first and second year of your residency, generally.

11 I passed all three tests and was, therefore,  
12 certified under the National Board of Medical  
13 Examiners.

14 Q. Who are the members of the Boston Healthy  
15 Homes Partnership?

16 A. The Boston Healthy Homes Partnership includes  
17 the Boston Public Health Commission; the Boston  
18 Housing Authority; the Boston Urban Asthma Coalition;  
19 five other community-based organizations, four of  
20 which are community health centers and one of which is  
21 a community advocacy group; Boston Medical Center, the  
22 hospital I work at; and other agencies around both the  
23 study that's being conducted and -- and to create sort  
24 of sustainable change around healthy indoor  
25 environments in Boston.

1 Q. Does the Boston Healthy Homes study relate to  
2 any other indoor environmental conditions besides  
3 mold?

4 A. The health -- I mean, excuse me. The  
5 environmental assessment we do pertains to mold;  
6 analysis of dust collected for specific allergens,  
7 including dust mites, cockroach, mouse urinary  
8 protein, dog, cat; and we also do ambient air testing  
9 for things such as temperature, relative humidity,  
10 volatile organic compound, nitrogen dioxide, ambient  
11 dust; and then observation of other indoor health  
12 hazards such as environmental tobacco smoke, for  
13 example.

14 Q. Has the Boston Healthy Homes Partnership  
15 published the results of any of its research?

16 A. No. We are currently in the last year of the  
17 study, and so we hope to have some published results  
18 in the next year.

19 Q. Where would the results be published?

20 A. Probably in a medical journal, though I'm not  
21 sure which.

22 Q. How many principal investigators are there in  
23 the Boston Healthy Homes Partnership?

24 A. Two.

25 Q. Who's the other principal investigator?



1 A. The name is John Bernardo, B-E-R-N-A-R-D-O.  
2 He's an M.D.

3 Q. Who else is involved in doing the work in the  
4 Boston Healthy Homes Partnership, other than yourself  
5 and Dr. Bernardo?

6 A. There's the head of the asthma program at the  
7 Boston Public Health Commission. And then we have  
8 multiple staff: a program manager; two home  
9 inspectors; a home educator on staff at the Boston  
10 Public Health Commission; plus we contract with  
11 community health centers for health educator time at  
12 the community health centers and the other agency I  
13 mentioned: Community Advocacy Agency.

14 Q. Is any of the environmental assessment being  
15 performed by the Boston Healthy Homes Partnership  
16 being performed in schools?

17 A. No, not part of the study.

18 (Pause in proceedings.)

19 BY MR. SEFERIAN:

20 Q. Do you have any publications in process other  
21 than those listed in your C.V.?

22 A. There's one on peer violence that I -- I  
23 mentored some residents doing research. And I think  
24 it's called Peer Violence and Educational Intervention  
25 in Residency, and it's a manuscript that's finished

1 percent complete estimate.

2 My estimate would be seven.

3 Q. To the best of your recollection, are all of  
4 the approximately seven research projects with which  
5 you've been involved at Boston University reflected in  
6 your C.V.?

7 A. Yes.

8 Q. Are you presently a researcher or an  
9 investigator in any other studies, in addition to the  
10 Boston Healthy Homes Partnership and the National  
11 Institute of Environmental Health Sciences?

12 MR. ELIASBERG: Objection. Vague and  
13 ambiguous.

14 THE WITNESS: I mentioned that there was  
15 another manuscript in process. I'm listed as a  
16 principal investigator on that study.

17 BY MR. SEFERIAN:

18 Q. Any others, currently?

19 A. Not -- not that I can recall.

20 MR. ELIASBERG: Are you going to shift off  
21 the C.V.? Because it's been about an hour and 15  
22 minutes. Is this a good time to take a break?

23 MR. SEFERIAN: Yeah. This is a good time.

24 (Recess.)

25 BY MR. SEFERIAN:

1 that we're submitting for publication.

2 Q. Does that publication have anything to do  
3 with the opinions you have rendered in this case?

4 A. No.

5 Q. How many years of research experience --  
6 public health research experience do you have?

7 A. Well, I began doing research when I was an  
8 undergraduate, though I never published anything from  
9 that research. I also did some research in medical  
10 school that also is unpublished. And then during  
11 residency is when I began to publish the research that  
12 I currently continue to do in that subject area of the  
13 indoor environment and children's health.

14 Q. Did any of your research as an undergraduate  
15 or medical student -- school student relate to indoor  
16 environmental conditions and children's health?

17 A. No.

18 Q. Do you have any degrees in statistics?

19 A. My Master's of Public Health -- I had two  
20 concentrations: one in epidemiology and  
21 biostatistics, and the second in environmental health.

22 Q. Do you have an estimate of how many different  
23 research projects you've worked on at Boston  
24 University?

25 A. I can make an estimate. It may not be a 100

1 Q. Dr. Sandel, in your pediatric practice do you  
2 frequently make the determination that a childhood  
3 illness was caused by the physical condition of the  
4 patient's school facilities?

5 A. There have been instances where I thought  
6 that a child's symptoms could be related to their  
7 school.

8 Before we go any further, if I could just  
9 clarify one of my answers from the last session.

10 You had asked me about my brother and my --  
11 and I had explained that he had described certain  
12 conditions in the schools. And he had said that he  
13 thought that maybe kids would be sick as a result of  
14 that. Even though he's not a medical professional,  
15 and although I didn't examine those children, I can  
16 think that there's a good likelihood that the children  
17 could be sick as a result of the conditions that he  
18 described.

19 Q. Can you give any type of estimate as to how  
20 frequently you've made the determination that one of  
21 your patient's symptoms could be related to his or her  
22 school facility's conditions?

23 A. I think it's hard to estimate. I can think  
24 of some specific instances, some of which I cite in my  
25 expert report as examples.

1 Q. As you sit here today, do you have any type  
2 of estimate as to how frequently in your pediatric  
3 practice you may have the determination that a child's  
4 symptoms could be related to his or her school  
5 facilities?

6 A. I'm sorry. Could you just read that question  
7 back to me?

8 THE COURT REPORTER: "QUESTION: As you sit  
9 here today, do you have any type of estimate as to how  
10 frequently in your pediatric practice you may have the  
11 determination that a child's symptoms could be related  
12 to his or her school facilities?"

13 THE WITNESS: As I said before, it's hard to  
14 estimate either a percentage or a given number. I can  
15 think of some specific cases of children.

16 BY MR. SEFERIAN:

17 Q. Have there been any instances when you  
18 believed that a patient's symptoms could be related to  
19 his or her school-facility condition, and you reported  
20 that to any governmental authority or the patient's  
21 school?

22 A. There have been kids who I have contacted the  
23 school nurse to discuss their case; other instances, I  
24 have written letters documenting my belief of a  
25 connection between a condition and -- in the school

1 and a child's health problem.

2 Q. What were the different types of instances  
3 that you've encountered where a patient's symptoms you  
4 found could be related to his or her school facility's  
5 condition?

6 A. Two examples I can think of are, first, a  
7 child with severe asthma whose school would have  
8 excess water and mold growth when it rained. And I  
9 spoke with the school nurse about the conditions in  
10 the school.

11 The second was a child who was having a  
12 chronic cough that was not thought to be asthma, where  
13 the child could temporarily relate the cough with his  
14 exposure in school to dust that seemed to be left over  
15 from a construction project. And in that instance I  
16 wrote a letter documenting his symptoms and the  
17 relationship between the construction and the child's  
18 health.

19 Q. Who did you write the letter to?

20 MR. ELIASBERG: Talking about the second  
21 instance, or the first?

22 BY MR. SEFERIAN:

23 Q. The second instance.

24 A. I actually wrote it -- addressed it To Whom  
25 It May Concern. I gave it to the mother of the child,

1 who said that she was going to take it to the  
2 principal. At that time she didn't have the  
3 principal's name, so she was going to visit the school  
4 herself in person and deliver the letter.

5 Q. With regard to the second child you mentioned  
6 with the chronic cough, how did you make the  
7 determination that it might be related to exposure to  
8 dust from a school construction site?

9 A. The child described having the cough during  
10 the week and especially more in the mornings when he  
11 first would arrive at school; and he described the --  
12 the dust on his desktop. He did not seem to have the  
13 cough as much either at night when he was at home or  
14 on the weekends. And he did not seem to have this  
15 cough previous to the construction and dust forming on  
16 the desk.

17 Q. Have you ever spoken at a public school in  
18 Massachusetts about the effect of the physical  
19 condition of school facilities on students' short-term  
20 and long-term health?

21 A. No.

22 Q. Is your current business address listed on  
23 your C.V.?

24 A. Yes.

25 Q. Have you ever given a deposition before

1 today?

2 MR. ELIASBERG: Asked and answered.

3 THE WITNESS: No. This is my first  
4 deposition.

5 BY MR. SEFERIAN:

6 Q. Is there any reason that you cannot provide  
7 your best deposition testimony today?

8 A. Not any reason I can think of.

9 Q. What did you do to prepare for this  
10 deposition?

11 A. I met with a lawyer from the ACLU in Boston,  
12 and Peter and I spoke by phone. And we had dinner  
13 last night.

14 Q. Did you review any documents to prepare you  
15 for the deposition?

16 A. I reviewed my expert report, and I reviewed  
17 some of the reports in -- listed in the bibliography  
18 of my expert report.

19 Q. Anything else?

20 A. I think that's all I recall reviewing.

21 Q. When did you meet from the -- meet with the  
22 lawyer from the ACLU in Boston?

23 A. I'm not sure of the exact date. I believe it  
24 was about a month ago. We had dinner.

25 Q. What was that person's name?

1 A. I know his first name is Mark. I have to  
2 admit I don't recall, exactly, his last name.

3 Q. Was it your understanding that the lawyer you  
4 met with approximately one month ago works in Boston?

5 A. No. He was, I believe, from the ACLU  
6 Southern California Office. He was in town for a  
7 different case and was able to fit me into his  
8 schedule while he was in town.

9 Q. What did you discuss with Mark during this  
10 meeting you had approximately one month ago?

11 A. He gave me an overview of what a deposition  
12 was. We discussed general types of questions that can  
13 be asked at depositions, and discussed some specific  
14 areas of questions that I may get during the  
15 deposition.

16 Q. How long did you meet with Mark approximately  
17 one month ago?

18 A. I'd say approximately two hours.

19 Q. During your meeting did he show you any  
20 documents?

21 A. No.

22 Q. Was this meeting related to preparing you for  
23 your deposition in this case? Is that how you  
24 understood it?

25 A. That was my understanding, yes.

1 both homes and schools that the use of evidence from  
2 both indoor environments was appropriate.

3 Q. Who felt that those conditions were the same  
4 in both homes and schools?

5 A. Many of the reports that I cite in the expert  
6 report come to that conclusion.

7 Q. Are there some reports that you cite in your  
8 expert report in this case that examine conditions in  
9 schools and a similar condition in homes, and conclude  
10 that the health effects from those conditions are the  
11 same in both locations?

12 A. There's, for example, one article that I  
13 cite, written by Ruth Etzel, that does comment on  
14 conditions in homes and schools together. There's  
15 also some citations in at least one chapter within the  
16 Institute of Medicine study, Clearing the Air, that  
17 also makes similar conclusions, for example.

18 Q. In addition to the Etzel study and the  
19 Institute of Medicine study, are there other studies  
20 that you cite that compare conditions in homes and  
21 schools and the health effects of those facilities'  
22 conditions on children, as far as you can recall?

23 A. There are some studies that will comment on  
24 specific conditions such as mold in homes and mold in  
25 schools or cockroach in home -- cockroach allergen in

1 Q. In the deposition-preparation meeting you had  
2 approximately one month ago, did you discuss with the  
3 attorney whether there were any weaknesses in your  
4 report?

5 A. He asked me what I thought would be possible  
6 questions that I would get.

7 Q. And what did you say?

8 A. I did think that I would be asked about the  
9 conditions in homes versus schools. And I speculated  
10 whether I would be asked about solutions to the  
11 conditions that I was discussing in the expert report.

12 Q. Were there any other types of questions that  
13 you thought might be asked when you had this meeting  
14 approximately one month ago?

15 A. Those were the two major areas that I thought  
16 I would be asked questions about.

17 Q. During this meeting that you had  
18 approximately one month ago, what was your discussion  
19 with the attorney regarding testifying regarding  
20 conditions in homes versus schools?

21 A. We talked about the fact that some of my  
22 evidence in my expert report were describing  
23 conditions in schools and some was describing  
24 conditions in homes and their health effects, and that  
25 since those conditions were felt to be the same in

1 homes or cockroach allergen in schools. Many of these  
2 studies comment on one area of substandard conditions  
3 in homes and schools, and may not necessarily in that  
4 study address the health effects. But there are other  
5 studies I cite that do comment on the health effects  
6 of those allergens or mold or other things.

7 Q. In your deposition-preparation meeting a  
8 month ago, what did you discuss with the attorney  
9 regarding questions you might be asked about solutions  
10 to the facilities' conditions discussed in your expert  
11 report?

12 A. I wondered whether or not I would be asked  
13 questions about the proof of such solutions working.  
14 Since it was outside the scope of my expert report, I  
15 had not researched that literature as extensively, and  
16 it was felt that -- that if I was asked questions  
17 about it that I could answer as best to my ability.  
18 But it was not directly related to the scope of my  
19 report.

20 Q. Would it be correct to say that the expert  
21 report you prepared in this case does not discuss  
22 solutions to the facilities' conditions that are  
23 mentioned in that report?

24 A. I would say that the expert report does not  
25 identify all the possible solutions to the substandard

1 conditions in California Public Schools, though, as  
2 mentioned previously, there is some implication of  
3 some solutions in the report itself.

4 Q. In this case, will you be offering your  
5 opinion about solutions that you believe California  
6 should implement in response to the facilities'  
7 conditions mentioned in your expert report in this  
8 case?

9 A. Not unless asked to do so.

10 Q. Have you been asked to render such opinions  
11 in this case by plaintiff's counsel?

12 A. No.

13 Q. When did you speak with Mr. Eliasberg by  
14 telephone to prepare for this deposition?

15 A. I'm not positive of the date. I think it was  
16 last week, maybe last Monday.

17 Q. How long did you speak with Mr. Eliasberg on  
18 the telephone last week to prepare for the deposition?

19 A. Approximately one hour.

20 Q. What did you discuss in that telephone  
21 conversation with Mr. Eliasberg?

22 A. He also gave me a general rundown of what a  
23 deposition is and what are typical areas of  
24 questioning. And he did ask me some questions in role  
25 to give me a sense for what types of questions I may

1 report discussed conditions in homes, primarily, as  
2 opposed to conditions in schools?

3 MR. ELIASBERG: Objection. Misstates her  
4 prior testimony.

5 THE WITNESS: It's not my opinion that it's a  
6 weakness. It's my opinion that it would be a line of  
7 questioning that I -- I thought I would get.

8 BY MR. SEFERIAN:

9 Q. What aspects of the section of your report  
10 regarding lead did you discuss with Mr. Eliasberg?

11 A. We talked about lead being related to  
12 learning problems as a toxic effect to the brain of  
13 being exposed to lead.

14 Q. But what about that did you discuss?

15 A. We discussed the developing brain from birth  
16 until young elementary-school age, you know, five,  
17 six; and the effects that lead can have through  
18 different periods of time; and the short-term and  
19 long-term effects of that lead exposure.

20 Q. Do you recall anything else you discussed  
21 with Mr. Eliasberg last week?

22 A. I'm not sure if it was that conversation or a  
23 different one. I asked him about bringing out the  
24 books that I cite in the bibliography, for instance,  
25 to have with me here in California and whether or not

1 get asked.

2 Q. When you spoke with Mr. Eliasberg last week,  
3 did you discuss any particular aspect of your expert  
4 report in this case?

5 A. We did review some of the -- the lead  
6 section, the -- the different paragraphs dealing with  
7 lead. I don't believe we reviewed all of them, but we  
8 generally discussed lead.

9 Q. Were there any other sections of your report  
10 that you discussed with Mr. Eliasberg last week, other  
11 than the lead section?

12 A. We talked, again, about schools and homes and  
13 the conditions being shared between them both. That's  
14 about all I recall.

15 Q. When you had the discussion with Mr.  
16 Eliasberg last week, did you discuss any possible  
17 weaknesses in your expert report?

18 A. Just the two that I described previously:  
19 The schools and homes sharing the same conditions, and  
20 I -- I think we talked briefly about solutions, though  
21 it wasn't -- I don't remember discussing it really in  
22 detail.

23 Q. When you discussed your report with Mr.  
24 Eliasberg last week did you state that, in your  
25 belief, it was a weakness of the report that the

1 that would be a problem -- or some of the articles  
2 that I cite, having them with me here -- more  
3 logistical stuff about depositions that I wasn't sure  
4 about.

5 Q. What did he say in that regard?

6 A. He said that most of those materials were  
7 already turned over or publicly available, so that it  
8 shouldn't be a problem.

9 Q. What did you discuss in your  
10 deposition-preparation meeting yesterday with Mr.  
11 Eliasberg?

12 A. It was mostly a review of stuff we had  
13 discussed previously on how a deposition goes, types  
14 of questions generally that you're asked, sort of the  
15 logistics of asking for breaks, and things like that.

16 Q. Did you discuss any aspect of your expert  
17 report when you met with Mr. Eliasberg yesterday?

18 A. We did discuss formaldehyde, and went into  
19 one of the paragraphs on formaldehyde.

20 Q. What did you discuss about the formaldehyde  
21 paragraph?

22 A. We were discussing increased risk for cancer  
23 in children attributable to formaldehyde exposure.

24 Q. When did you review the expert report to  
25 prepare for this deposition?

1 A. I re-reviewed it on the plane, and I looked  
2 it over last night before I went to bed and this  
3 morning.

4 Q. When did you review some of the reports  
5 listed in the bibliography to your report to prepare  
6 for the deposition?

7 A. I looked through some of them last weekend, I  
8 looked through some of them on the plane, and I looked  
9 through some of them last night.

10 Q. Do you recall any of the specific reports  
11 that you reviewed to prepare for this deposition?

12 A. I re-reviewed some of the chapters in the  
13 Indoor Air Quality Handbook which is written by  
14 Spangler. I re-reviewed some of the chapters in  
15 indoor -- sorry -- Clearing the Air, from the  
16 Institute of Medicine.

17 I skimmed a lot of articles that are listed  
18 in the bibliography. For instance, the Etzel article  
19 on homes and schools, the mouse allergen article by --  
20 I'm not going to pronounce it right -- Phillip Akee.  
21 It's in the -- it's in the bibliography -- things like  
22 that.

23 Q. Did you meet with anyone else or speak to  
24 anyone else besides Mr. Eliasberg and the attorney in  
25 Boston to prepare for the deposition?

1 A. No. Just those two.

2 Q. Have you read any of the other expert reports  
3 in this case or any of the expert depositions in this  
4 case?

5 A. In preparation of this expert report -- I had  
6 never written one before, so I did see an example of  
7 an expert report to use as a -- an example to create  
8 the structure of an expert report.

9 Q. Whose expert report did you look at as an  
10 example for the structure?

11 A. I have to admit I'm not positive. I think  
12 his last name is Hausmann, but I'm -- I'm not sure.

13 Q. Who provided you with the Housmann expert  
14 report?

15 A. Mr. Eliasberg. Or -- I'm not -- I should say  
16 I'm not positive. I think it was either Mr. Eliasberg  
17 or Mr. Moynihan.

18 Q. Do you recall what the subject of that expert  
19 report was?

20 A. Not very well. My recollection was that it  
21 had something to do with learning in schools.

22 MR. SEFERIAN: I'd like to ask you to look at  
23 a document I'll ask the reporter to mark as Exhibit 2.

24 (Exhibit 2 marked for identification.)

25 (Witness examines document.)

1 BY MR. SEFERIAN:

2 Q. Have you seen this document which has been  
3 marked as Exhibit 2?

4 A. I'm not sure I've seen this actual piece of  
5 paper before.

6 Q. Do you recall if you've seen any document  
7 that has similar information to the information that's  
8 contained on Exhibit 2?

9 A. I was provided with some depositions from  
10 some of the plaintiffs. I reviewed them very briefly,  
11 since it was my understanding that the scope of my  
12 report was not to verify, necessarily, the extent of  
13 the conditions in the California Public Schools, but  
14 to -- I requested these to get a sense of the number  
15 of conditions that were being alleged.

16 Q. Did you read any of the depositions that were  
17 provided to you in this case in their entirety?

18 A. I did read some of the depositions. I cannot  
19 recall if I read any single deposition in its  
20 entirety. I more -- my general practice was to look  
21 through the depositions looking for certain types of  
22 conditions that are known to be affecting children's  
23 health.

24 Q. What types of conditions were those?

25 A. Examples of bathroom facilities with

1 excessive trash or plumbing problems, pest  
2 infestations, extremes in temperature, extremes hot,  
3 extremes cold, mold growth and water leakage,  
4 overcrowding -- as examples of the types of conditions  
5 that I saw.

6 Q. Have you seen any documents similar to  
7 Exhibit 2 that might contain a description of some of  
8 the records that were provided to you to review in  
9 this case?

10 MR. ELIASBERG: Objection. Vague.

11 THE WITNESS: Can you give me an example of a  
12 type of document? I -- I have to admit I don't recall  
13 seeing this exact document.

14 BY MR. SEFERIAN:

15 Q. Do you recall ever receiving in this case  
16 from plaintiff's counsel any of the documents that are  
17 listed in Exhibit 2?

18 A. I definitely received a large stack of  
19 documents, which I still have at home. I do not  
20 recall the names of the -- the people who did the  
21 depositions of the -- that I have in my possession.

22 Q. You were sent some depositions from  
23 plaintiffs' counsel.

24 Is that correct?

25 A. Yes.

1 Q. Were you also sent declarations from  
2 plaintiffs' counsel? On Exhibit 2, it says,  
3 "Declaration of," and it has a list of names.  
4 Do you recall receiving any documents which  
5 you believe might be described by those declarations?  
6 A. What's the difference between a deposition  
7 and a declaration?  
8 Q. Well, typically a deposition transcript would  
9 have more pages and it would be a listing of questions  
10 and answers; whereas, a declaration is typically  
11 shorter in length and it just contains a verified  
12 statement of an individual, without containing  
13 questions and answers within it.  
14 A. I remember reviewing what probably were  
15 depositions of things that had questions and answers  
16 in it.  
17 The -- I think there may have been  
18 declarations, also, in the stacks of papers, but my --  
19 my memory is more of reviewing the depositions.  
20 Q. I'd like to show you a document which I'll  
21 ask the court reporter to mark as Exhibit 3.  
22 (Exhibit 3 marked for identification.)  
23 BY MR. SEFERIAN:  
24 Q. And I'll ask you if you recognize that  
25 document.

1 A. I don't recognize it as one of the documents  
2 that I reviewed.  
3 Q. Do you recall reviewing in your work in this  
4 case any documents similar to Exhibit 3, wherein at  
5 the top of the document it says, "Declaration of," and  
6 has a person's name? And it has a list of numbered  
7 paragraphs where a person is giving a declaration or a  
8 statement about certain conditions.  
9 Do you recall receiving and reviewing any  
10 documents in this case similar to the document that's  
11 marked as Exhibit 3?  
12 A. I may have reviewed some of these types of  
13 documents.  
14 The ones that stand out in my mind are more  
15 the depositions.  
16 Q. If I could ask you to refer again to Exhibit  
17 2. Does Exhibit 2 -- let me withdraw that question.  
18 Are there any documents that you were  
19 provided by plaintiffs' counsel in this case that you  
20 do not see listed on Exhibit 2?  
21 A. Again, I reviewed these documents when I  
22 first was writing the expert report, which was well  
23 over, I believe, a year ago. I don't recall specific  
24 names, so it's difficult for me to say whether --  
25 either this is an incomplete list or whether I did not

1 receive all of these.  
2 Q. As you sit here today, is there any specific  
3 document that you recall having received from  
4 plaintiffs' counsel that you do not see listed on  
5 Exhibit 2?  
6 A. Could you read that one more time?  
7 THE COURT REPORTER: "QUESTION: As you sit  
8 here today, is there any specific document that you  
9 recall having received from plaintiffs' counsel that  
10 you do not see listed on Exhibit 2?"  
11 THE WITNESS: There were other documents that  
12 I requested that are not listed on this sheet of  
13 paper, but they were not declarations or depositions.  
14 They were specific California-based reports.  
15 BY MR. SEFERIAN:  
16 Q. Which reports were those?  
17 A. I do remember requesting a copy of the Daisy  
18 and Angel report listed in the bibliography. I also  
19 requested reports from EWG -- Environmental Working  
20 Group -- and Ed Source. I also requested a report on  
21 Lead Exposure Within the California Schools, by the  
22 Department of Health Services.  
23 There may be other reports; those are the  
24 ones I can think of off the top of my head.  
25 Q. Why did you request those reports?

1 A. Some of the reports weren't easily accessible  
2 through normal medical-literature libraries. And some  
3 of them were more easily available, but I needed help  
4 finding the specific web links.  
5 Q. On Exhibit 3, there's approximately 16  
6 declarations listed. In looking at Exhibit -- I'm  
7 sorry.  
8 In Exhibit 2, there's approximately 16  
9 declarations listed.  
10 In reviewing Exhibit 2, does that refresh  
11 your recollection at all about how many different  
12 declarations you reviewed in this case?  
13 A. In looking at Exhibit 3, which is an example  
14 of a declaration -- I do believe that I probably  
15 reviewed at least a couple declarations.  
16 My -- what my -- sticks out in my memory are  
17 the depositions, since they were thicker and I tended  
18 to flip through them to get a sense for the types of  
19 questioning that were being asked.  
20 But, again, I have difficulty recalling any  
21 specific one deposition or one declaration.  
22 If I could add one thing to that answer. My  
23 understanding of why those materials were important to  
24 me was simply to understand the number of conditions  
25 that I should be thinking about in my expert

1 testimony.

2 Again, my understanding was not that I needed  
3 to prove that those conditions existed. And so that  
4 part of the reason why I did not pay attention to  
5 names or to looking through every single deposition or  
6 declaration was that once I had ascertained that a  
7 given condition existed in any one or two schools,  
8 according to the deposition or declaration, I was  
9 satisfied enough that it made sense to include that  
10 condition in my report.

11 MR. ELIASBERG: It's been about an hour. Can  
12 we just go off the record for a second?

13 MR. SEFERIAN: Yes.

14 (Recess.)

15 BY MR. SEFERIAN:

16 Q. Dr. Sandel, were there any other records that  
17 you would have liked to review in forming your  
18 opinions in this case, but that you did not review?

19 A. No, not that I can think of.

20 Q. When you were reviewing the various  
21 depositions that you were provided and you saw a  
22 reference to a condition in a deposition, did you take  
23 that reference in a deposition as sufficient proof  
24 that that condition existed for the purposes of your  
25 report in this case?

1 Q. Do you recall if any of the deposition  
2 transcripts that you reviewed in this case described  
3 mold growth in California Public Schools?

4 A. My memory is that there was some description  
5 of mold growth, and many descriptions of water  
6 intrusion that could lead to mold growth.

7 Q. What do you mean by "water intrusion"?

8 A. Excess water in indoor settings which can  
9 result from multiple sources, including roof leaks,  
10 plumbing problems, poor sealing of windows -- to give  
11 some examples.

12 Q. Did you regard the descriptions of mold  
13 growth that were in the depositions that you reviewed  
14 as establishing that it was, in fact, mold that was  
15 being described and not some other condition?

16 A. My memory is that the conditions were  
17 described in ways that were consistent with mold, in  
18 that the -- during, I believe, the depositions it was  
19 asked, "Was there mold?" and the people being deposed  
20 answered in the affirmative, which was their opinion.

21 Q. Do you believe that the deposition testimony  
22 of the deponents' view that it was mold is sufficient  
23 basis for broad public health statements about the  
24 existence of mold in California Public Schools?

25 A. I believe that mold is generally an easy

1 MR. ELIASBERG: Objection. Vague.

2 THE WITNESS: If I saw in a deposition that a  
3 certain condition was reported, I felt that it was --  
4 well, if I saw it in more than one deposition I  
5 thought that it was adequate to put it in my report as  
6 a condition that should be explained the health  
7 effects of.

8 BY MR. SEFERIAN:

9 Q. So would it be accurate to say that if you  
10 reviewed the depositions and you saw a particular  
11 school-facility condition mentioned in more than one  
12 deposition, that was sufficient for you to determine  
13 the presence of that condition in California Public  
14 Schools, for the purposes of your opinions in this  
15 case?

16 A. It was sufficient for me to want to describe  
17 the health effects of those conditions.

18 Again, I didn't view the scope of my report  
19 to be proving that those conditions existed.

20 Q. When you reviewed the documents that were  
21 provided to you by plaintiffs' counsel in this case,  
22 did you make any types of separate notes regarding  
23 your review of those documents?

24 A. No, not that I recall did I take specific  
25 notes on any of the depositions or declarations.

1 recognizable condition, and that if the deponents  
2 thought it to be present I think that there's a strong  
3 likelihood that they were correct.

4 There were other reports cited in my expert  
5 report that also describe mold conditions in the  
6 California Public Schools, outside of the depositions  
7 and declarations.

8 Q. Are there any records that you asked  
9 plaintiffs' attorneys to provide you with but they did  
10 not provide you?

11 A. Not that I remember.

12 Q. Do you recall reviewing, in this case,  
13 records from any particular public schools in  
14 California?

15 A. I don't recall reviewing individual reports  
16 from public schools. I see one listed here, but I  
17 don't recall reviewing that report.

18 Q. You're referring to Exhibit 2?

19 A. Exhibit 2, number 30.

20 Q. You're referring to the Brett Hart Middle  
21 School report?

22 A. Yeah. I don't recall that specific one. I  
23 certainly have seen other reports that are  
24 compilations of reports from individual schools, such  
25 as the studies cited in the Daisy-Angel report or

1 studies from the General Accounting Office -- are  
2 based on individual school reports in California.

3 Q. In this case, did you review any records from  
4 the California Department of Education?

5 A. I did review a document that was faxed me,  
6 that -- I'm not sure which California agency conducted  
7 the study that was looking at reports of pests within  
8 the California Public Schools.

9 I also reviewed, as mentioned previously, the  
10 Department of Health Services review of lead in the  
11 public schools.

12 Those are the two state agencies in  
13 California that I can recall reviewing reports. There  
14 may be others.

15 Q. When was the report regarding pests in  
16 California Public Schools faxed to you?

17 A. I don't recall.

18 Q. Was the report regarding pests a California  
19 Department of Education report?

20 A. I'm not sure who commissioned that report.

21 Q. Did you review any records in this case from  
22 the California School Facilities Planning Division?

23 A. Again, I'm -- there's this one report that  
24 sticks out in my mind from California schools  
25 regarding pests, and I -- I really can't be sure about

1 Q. Did you have any estimate of the amount of  
2 time that you've spent in performing the research and  
3 all the work that you've done in this case, including  
4 drafting the report?

5 A. I would probably estimate, in total, that the  
6 report probably took me -- my estimate would be  
7 probably between 50 and 60 hours in total.

8 In preparation for the deposition, I would  
9 probably describe it as about four or five hours in  
10 total. And then, obviously, flying out here.

11 Q. So you spent approximately 50 to 60 hours in  
12 reviewing the records that you were provided in this  
13 case, doing the research, and drafting the report.

14 Is that correct?

15 A. That would be my best estimate.

16 Q. Can you give any breakdown of how those 50 to  
17 60 hours are apportioned in terms of the different  
18 tasks that you performed in this case?

19 A. I probably spent a couple hours reviewing the  
20 depositions and declarations. I spent probably up to  
21 10 to 15 hours on the initial draft of the report, and  
22 then worked approximately five hours on subsequent  
23 drafts. Of the time working on drafts, approximately  
24 half of it was probably writing and half of it was  
25 reviewing the literature involved.

1 which agency commissioned that report.

2 Q. Have you reviewed any records in this case  
3 prepared by any California state public health  
4 officials that document the presence of any of the  
5 conditions mentioned in your report?

6 MR. ELIASBERG: Other than the ones she's  
7 mentioned?

8 THE WITNESS: The Department of Health  
9 Services documented lead and lead in poor enough  
10 condition to -- lead paint in poor enough conditions  
11 to potentially expose children to lead.

12 The aforementioned report that I cannot  
13 remember which state agency commissioned it -- but  
14 looking at pests' involvement.

15 There were other agency reports that were  
16 included in the Daisy and Angel report on public  
17 schools in California, some of which were, I think,  
18 state mandated and some, I think, federally mandated  
19 from the occupational safety agencies.

20 Those are the ones I can recall. There may  
21 be others.

22 BY MR. SEFERIAN:

23 Q. Have you kept any log or time sheet of the  
24 work you performed in this case?

25 A. No.

1 Q. Did you provide any documents to plaintiffs'  
2 counsel in this case?

3 A. Some of the articles listed in the  
4 bibliography I provided copies for.

5 Q. Do you have any notes or records that were  
6 somehow lost or not maintained regarding your work in  
7 this case?

8 MR. ELIASBERG: Objection. Vague.

9 THE WITNESS: It's my general practice when  
10 making drafts of articles or, in this case, a report,  
11 that once I make the actual changes in the document I  
12 tend to throw my notes away because I have --  
13 otherwise I -- my desk becomes too piled up with  
14 clutter.

15 I will save drafts on my computer, though, as  
16 draft 1, draft 2, draft 3, draft 4, so that I can look  
17 back and see what changes were made.

18 BY MR. SEFERIAN:

19 Q. Did you save the drafts of your report on  
20 your computer in this case?

21 A. Yes.

22 Q. How many different drafts were there of your  
23 report in this case?

24 A. My memory is that there were eight or nine.

25 Q. Do you maintain a separate file that has all



1 the records and work that you performed in this case?  
 2 A. I don't really have a paper file for this  
 3 case, since when I would make notes -- if I was making  
 4 changes to drafts, once I made those changes in the  
 5 actual document on the computer I would throw those  
 6 notes away.  
 7 So most of the record that I have is on my  
 8 hard drive of my computer at home, and then some  
 9 e-mail communications in my e-mail account.  
 10 Q. Did you keep the printouts of e-mail  
 11 communications that you sent between yourself and  
 12 plaintiffs' counsel?  
 13 A. I generally don't print out e-mail  
 14 communication, so I don't have hard copies of e-mail  
 15 communications. I tend to keep a lot of e-mail in my  
 16 account, so I probably have some of the e-mail  
 17 communication. But I -- I would guess that some of it  
 18 would have been deleted over time, given the limited  
 19 ability to keep e-mail in an inbox over a long period  
 20 of time.  
 21 Q. Did anyone assist you with researching or  
 22 writing or editing your report or doing any of the  
 23 work that you performed in this case?  
 24 A. I am the one who wrote the expert report. I  
 25 did not show the expert report to anyone.

1 Q. Did anyone assist you with performing any of  
 2 the research and/or gathering articles that you did in  
 3 this case?  
 4 A. My husband helped me get some of the articles  
 5 from a library. I did the research in the case. I  
 6 had one clarifying question on one of the areas of the  
 7 report regarding lead, so I asked one of my friends  
 8 who is an expert in lead about that one area.  
 9 Q. Who was the expert you consulted on lead?  
 10 A. His name is Dr. Bruce Lanphear,  
 11 L-A-N-P-H-E-A-R. I've cited some of his articles in  
 12 my bibliography.  
 13 Q. Did you consult with any other professionals  
 14 in -- other than Dr. Lanphear in doing the work that  
 15 you did for this case?  
 16 A. No.  
 17 Q. What did you discuss with Dr. Lanphear about  
 18 lead in this case?  
 19 A. We discussed the existence of studies of  
 20 children who are exposed to lead during their  
 21 elementary-school years, and the connection between  
 22 short-term and long-term learning and other  
 23 disabilities from that exposure.  
 24 Q. What was the question that you asked Dr.  
 25 Lanphear about the lead studies?

1 A. Most of the lead literature looks at lead  
 2 exposure in younger children and tracks their  
 3 long-term effects of that lead exposure. I asked him  
 4 about the existence of later lead exposure and similar  
 5 tracking of those types of effects.  
 6 Q. What did Dr. Lanphear say about that?  
 7 A. My memory of his answer was that it's  
 8 difficult to separate out exposure in younger children  
 9 from the young elementary school-age child, that we  
 10 consider lead to be hazardous to children's health  
 11 from zero to six, that there is probably continued ill  
 12 effects from lead in older children, but that most of  
 13 the studies have not been able to separate those two  
 14 types of exposures to attribute risk.  
 15 Q. What are the two types of exposures you're  
 16 referring to?  
 17 A. In this specific case, it would be exposure  
 18 to lead from elementary school facilities versus, for  
 19 example, day-care facilities. And whether or not  
 20 those would have long-term effects on children.  
 21 Q. How much have you been paid for your work in  
 22 this case?  
 23 A. I contracted for the expert report for  
 24 \$2,000.  
 25 Q. How was that price determined?

1 A. I originally thought it was going to be about  
 2 10 to 20 hours of work. And since I generally charge  
 3 about \$100 to \$200 per hour in my consulting fees, I  
 4 charged them \$2,000.  
 5 Q. Why did you initially think it was going to  
 6 be 10 to 20 hours of work?  
 7 A. When I was initially contacted, the expert  
 8 report was due within a couple of weeks. And so I  
 9 anticipated doing one, maybe two drafts of the report  
 10 but not more.  
 11 (Discussion held off the record.)  
 12 BY MR. SEFERIAN:  
 13 Q. When you say your consulting fee is \$100 to  
 14 \$200 per hour, what type of work are you referring to?  
 15 A. I've done consulting work for The Urban  
 16 Institute, which is conducting a study into the  
 17 effects of a specific housing development-type called  
 18 Hope Six Projects. And I'm their pediatric  
 19 consultant.  
 20 Q. What does your work involve for the Hope Six  
 21 Institute?  
 22 A. It involves attending annual to biannual  
 23 meetings, generally day-long meetings, as well as  
 24 occasional consultation about surveys or reports of  
 25 the results.

1 Q. What type of work is the Urban Institute  
2 doing in that project?

3 MR. ELIASBERG: Objection to the extent it  
4 calls for speculation.

5 THE WITNESS: The study consists of a  
6 longitudinal study of residents before and after Hope  
7 Six Projects are built. Typically, Hope Six Projects  
8 are the result after demolition of existing public  
9 housing projects with -- replacing them with these  
10 Hope Six units. The Urban Institute is interested in  
11 tracking residents before, during, and after that  
12 process, to see what the full extent of those  
13 developments have on the residents that traditionally  
14 were living in public housing.

15 BY MR. SEFERIAN:

16 Q. Does any of your work with the Urban  
17 Institute involve school-facility conditions?

18 A. No.

19 Q. Are you scheduled to be paid any additional  
20 amounts for your work in this case?

21 A. I should be paid for the deposition today and  
22 hopefully tomorrow, and then for testifying in court.

23 Q. Is there any work that plaintiffs' counsel  
24 have asked you to perform in this case that you have  
25 not yet performed?

1 students became sick from toxin exposure in school?

2 A. At least one of the reports that I was  
3 provided, I believe from the Environment Working  
4 Group, or EWG, described toxin exposure in California  
5 Public Schools.

6 Q. Did the EWG report demonstrate that  
7 California Public School students became sick from  
8 toxin exposure in school?

9 A. If you have the report, I can look through it  
10 to be 100 percent sure of my answer. I do remember  
11 them talking about exposure and estimating that  
12 children were sick as a result of it, is my memory.

13 Q. Did the EWG report make a finding linking the  
14 toxin exposure in school to California Public School  
15 students' illnesses?

16 A. Again, it was a thick report so I'm not -- I  
17 can't remember whether it specifically talked about  
18 specific instances of children being sick, but it did  
19 talk about exposure and the potential consequences of  
20 that exposure in making children sick.

21 Q. In your opinion, did the EWG report prove to  
22 a reasonable medical probability that students'  
23 illness was caused by toxin exposure in school?

24 MR. ELIASBERG: Objection. Vague.

25 THE WITNESS: My memory is that the EWG

1 A. I believe that I've performed all the work  
2 that they've asked me to do up until this point. They  
3 may ask me to do more work in the future.

4 Q. As of this date, is there any other work that  
5 plaintiffs' attorneys have asked you to perform that  
6 you have not yet performed?

7 A. No. There's no specific work that they've  
8 definitely asked me to do that I have not yet  
9 performed.

10 Q. Are you contemplating some type of work in  
11 that response?

12 A. They have mentioned to me that I may help  
13 them prepare rebuttal briefs or rebuttal reports to  
14 other expert witnesses that may be brought. Since I'm  
15 an expert in this area, I may help educate attorneys  
16 that are cross-examining or deposing, I should say,  
17 experts for the defendant side of the case.

18 Q. Have you started on any work in terms of  
19 researching or preparing rebuttal reports?

20 A. No.

21 Q. Have you been asked to prepare or assist with  
22 any trial exhibits or demonstrations?

23 A. No.

24 Q. Were you provided with any records in this  
25 case, indicating that California Public School

1 report cited many studies to support its claim that  
2 children could be sick as a result of these exposures  
3 in California schools.

4 BY MR. SEFERIAN:

5 Q. Did the EWG report actually make the claim  
6 that children were sick as a result of exposure to  
7 toxins in public schools?

8 MR. ELIASBERG: You can ask her these  
9 questions, but she's told you she doesn't remember  
10 exactly what's in the report.

11 Do you really want to make this a memory  
12 exercise?

13 You can answer.

14 THE WITNESS: Again, I am not sure exactly  
15 what the report says regarding specific children being  
16 sick or making these specific claims, but they did  
17 draw the -- the conclusion from reasonable evidence  
18 that these exposures existed, and that it had the  
19 potential to make children sick.

20 That's my memory of what the report says.

21 I should say there are also other reports of  
22 other toxins, such as the Department of Health  
23 Services describing lead. There were other -- I think  
24 the Daisy-Angel report also describes other toxic  
25 exposures.

1 BY MR. SEFERIAN:

2 Q. Did you review any records in this case  
3 indicating that any California Public School students  
4 became sick from exposure to extreme temperature --  
5 extreme temperatures in school?

6 A. The Daisy-Angel report did describe extreme  
7 temperatures and their ill effects, as well as the  
8 depositions did describe those conditions. Some of  
9 the other literature that I've cited in my expert  
10 report will also describe the connections between  
11 extremes in temperature and children becoming ill.

12 Q. Were you provided any records in this case  
13 indicating that California Public School students were  
14 diagnosed with cancer as a result of toxin exposure in  
15 school?

16 A. I don't recall being provided with materials  
17 that described children being diagnosed with cancer,  
18 no.

19 Q. Were you provided with any records indicating  
20 that California Public School students became sick  
21 from exposure to cockroaches in school?

22 A. I was provided with documents that described  
23 cockroach infestation in schools, both by reports in  
24 the depositions, as well as this previous document  
25 that I described.

1 And, also, the General Accounting Office  
2 reports describe it. And I believe, also, the  
3 Daisy-Angel discusses some pest infestation.

4 And then other studies have documented the  
5 effects of becoming sensitive and therefore being  
6 allergic to cockroach allergen and the effects of  
7 being exposed, then, to that allergen.

8 Q. When were you first contacted about this  
9 case?

10 A. My memory is that it was January or February  
11 of a year ago, I believe.

12 Q. January or February 2002?

13 A. No. It probably was more like 2001. Would  
14 that be right? No. Maybe -- it may have been even  
15 that long ago. I'm -- I'm not positive, to be honest  
16 with you. My memory was that it was -- no. No. It  
17 was 2002.

18 Q. So you were first contacted about this case  
19 approximately one year ago.

20 Is that correct?

21 A. To the best of my recollection.

22 Q. Who contacted you?

23 A. Mr. Eliasberg.

24 Q. Can you tell me how Mr. Eliasberg first  
25 contacted you in this case?

1 A. He paged me.

2 Q. He paged you?

3 A. Yeah.

4 Q. And after Mr. Eliasberg first paged you, did  
5 you have an in-person or telephone conversation with  
6 him?

7 A. Yes. We had a telephone conversation.

8 Q. Do you recall the approximate date of that  
9 first telephone conversation with Mr. Eliasberg?

10 A. I think it was in that same time range, the  
11 January-February. I don't remember the exact date.

12 Q. What was said in the first telephone  
13 conversation you had with Mr. Eliasberg?

14 A. He briefly described the case and explained  
15 that they were looking for an expert witness to  
16 provide testimony about the connection between the  
17 indoor environment and children's health, and that he  
18 had heard my name from other sources as someone who  
19 could be an expert to that subject.

20 Q. In your initial telephone conversation with  
21 Mr. Eliasberg, did he tell you anything else besides  
22 describing the case and letting you know that they  
23 were looking for expert witnesses and that he had  
24 heard your name?

25 MR. ELIASBERG: Objection. Misstates her

1 prior testimony.

2 You can go ahead and answer.

3 THE WITNESS: I don't recall more than  
4 discussing the -- what the case was and what type of  
5 expert testimony they were looking for.

6 BY MR. SEFERIAN:

7 Q. Do you recall how Mr. Eliasberg described the  
8 case to you when you first talked to him on the  
9 telephone?

10 A. He described -- my memory is that he  
11 described that there were plaintiffs, students, that  
12 were filing or had asked the ACLU to sue the State of  
13 California around adverse conditions in the California  
14 Public Schools, of which some included things like  
15 extremes in temperature, pest infestation, mold, et  
16 cetera.

17 Q. Did Mr. Eliasberg tell you in that initial  
18 conversation or at some later time how he learned  
19 about you?

20 A. I'm not sure. I think he heard about me  
21 through Dr. Sharfstein, who is currently working for  
22 Congressman Waxman.

23 Q. Other than this case, have you ever worked  
24 with the ACLU or any of the other plaintiffs' law  
25 firms in this case?

1 A. No.

2 Q. In that initial telephone conversation with  
3 Mr. Eliasberg, did you agree to be an expert witness  
4 for the plaintiffs in this case?

5 A. I said I had to think about it. I discussed  
6 it with my husband and then agreed at a later date.

7 Q. In the first conversation you had with Mr.  
8 Eliasberg, did he give you any description of the type  
9 of work that they were going to ask you to perform?  
10 The specific tasks that you'd be asked to do?

11 A. I think he described the expert report. I  
12 don't remember whether he described the deposition and  
13 testimony as different phases, but he did discuss the  
14 need to write an expert report.

15 Q. What was the next contact you had with  
16 plaintiffs' counsel, after that first telephone  
17 conversation?

18 A. I think there was some time, whether it was a  
19 couple of days or a couple of weeks before I agreed to  
20 do the -- the expert report. And, as I described  
21 previously, I was initially given a very short  
22 deadline to complete the expert report.

23 Q. What was your initial deadline? Do you  
24 recall?

25 A. My memory is that I was going to give a draft

1 Q. Who else have you spoken with about this case  
2 who is an attorney for the plaintiffs or is a  
3 representative of the attorney, besides Mr. Eliasberg  
4 and Mark?

5 A. On at least one of the phone calls with Mr.  
6 Eliasberg, I believe Mr. Moynihan was present. I  
7 don't really recall any other attorneys.

8 Q. Do you recall approximately how many times  
9 you've spoken with Mr. Eliasberg about this case  
10 before your deposition?

11 A. I didn't keep a log. I'm not sure of the  
12 number. My guess would be 20, 25 calls.

13 Q. Those were all telephone calls?

14 A. Yes.

15 Q. Did you ever meet Mr. Eliasberg before  
16 yesterday?

17 A. No.

18 Q. How many times did you speak with Mark about  
19 this case?

20 A. Once.

21 Q. How many times did you speak with Mr.  
22 Moynihan about this case?

23 A. I can definitely remember one conversation.  
24 There may have been more than one, but I think at most  
25 three or four.

1 by March 1st, because I think the initial due date was  
2 March 15th.

3 Q. After your initial phone call with Mr.  
4 Eliasberg, was your next conversation with him also on  
5 the telephone?

6 A. Yes.

7 Q. Did you call him at that time, or did he call  
8 you?

9 A. My memory is that I left him a message and  
10 then he called me back. Generally, the easiest way to  
11 get ahold of me is by paging me, so I think he paged  
12 me.

13 Q. And in that second telephone conversation  
14 with Mr. Eliasberg, did you let him know that you had  
15 agreed to serve as an expert witness for plaintiffs in  
16 this case?

17 A. Yes.

18 Q. Did you discuss anything else, that you  
19 recall, in that second conversation?

20 A. I'm not sure whether it was that conversation  
21 or in later conversations that I asked for a copy of  
22 an expert report so I would know how to structure the  
23 report, and requested some of the -- the deposition  
24 material, so I could understand the number of  
25 conditions that I needed to discuss.

1 Q. Did you keep any type of notes or summaries  
2 of any of your conversations with Mr. Eliasberg or any  
3 of the other plaintiffs' attorneys?

4 A. My general practice on the phone, if I'm not  
5 in the car, is to take notes. But, as I described  
6 previously, most of the notes I was taking were  
7 related to the drafts of the report, and so once I  
8 created those new drafts I generally threw those notes  
9 away.

10 So I was asked by Mr. Eliasberg to produce  
11 any notes. And in searching my home office and my  
12 work office, I really didn't have any of those notes  
13 left since it's -- since I throw them away, generally.

14 MR. ELIASBERG: Tony, it's about 5:30, so  
15 whenever there's a logical stopping place we should  
16 probably end for the day.

17 MR. SEFERIAN: Yeah. We could stop here.  
18 (END TIME: 5:31 p.m.)

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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed at \_\_\_\_\_, California on \_\_\_\_\_, 2003.

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(WITNESS SIGNATURE)

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STATE OF CALIFORNIA )  
) ss.  
COUNTY OF FRESNO )

I, CINDY PICKENS, a Certified Shorthand Reporter of the State of California having offices located at Fresno, California, do hereby certify:

THAT the witness in the foregoing deposition, named MEGAN T. SANDEL, M.D., was by me duly administered the oath to testify to the truth, the whole truth and nothing but the truth for the taking of the testimony herein;

THAT said deposition was reported in shorthand by me at the time and place above stated and thereafter transcribed under my direction and control.

I FURTHER CERTIFY that I am not interested in the outcome of said action, nor connected with, nor related to any of the parties in said action or to their respective counsel.

\_\_\_\_\_  
CINDY PICKENS, C.S.R. No. 3262