

## Supplementary material

Table 1. Search strategies used in databases.

### Search strategy used in PubMed

1	Tobacco smoke pollution[MeSH Terms]	14,932
2	Environmental tobacco smoke	17,501
3	Passive smok*	6,983
4	Second-hand smoke	16,648
5	secondhand smoke	17,572
6	involuntary smoking	16,148
7	1 or 2 or 3 or 4 or 5 or 6	30,618
8	case-control	395,482
9	cohort	1,072,990
10	prospective	1,117,759
11	cross-sectional	716,271
12	before-after	7,944
13	8 or 9 or 10 or 11 or 12	2,861,095
14	Spain	738,117
15	Spanish	498,478
16	14 or 15	1,134,867
17	("2012/01/01" [Date - Publication] : "2021/12/31" [Date - Publication])	11,934,287
18	7 AND 13 AND 16 AND 17	307

### Search strategy used in EMBASE

1	tobacco smoke pollution or environmental tobacco smoke or passive smok* or secondhand smoke or second hand smoke or involuntary smoke).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	23,159
2	(case control or cohort or prospective or cross sectional or before after).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	3,879,063
3	(Spain or Spanish).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	215,231
4	1 and 2 and 3	165
5	limit 4 to yr="2012 - 2021"	93

### Search strategy used in Web of Science

1	TS=(tobacco smoke pollution)	22,668
2	TS=(environmental tobacco smoke)	26,741
3	TS=(passive smok*)	15,983

<b>4</b>	TS=(second-hand smoke)	3,056
<b>5</b>	TS=(secondhand smoke)	6,521
<b>6</b>	TS=(involuntary smoking)	824
<b>7</b>	#1 or #2 or #3 or #4 or #5 or #6	49,342
<b>8</b>	TS=(case-control)	463,455
<b>9</b>	TS=(cohort)	1,528,878
<b>10</b>	TS=(prospective)	1,346,489
<b>11</b>	TS=(cross-sectional)	1,430,432
<b>12</b>	TS=(before-after)	15,009
<b>13</b>	#8 or #9 or #10 or #11 or #12	4,221,233
<b>14</b>	TS=(Spain)	378,810
<b>15</b>	TS=(Spanish)	293,507
<b>16</b>	#14 or #15	594,718
<b>17</b>	DOP=(2012-01-01/2021-12-31)	35,477,060
<b>18</b>	#7 AND #13 AND #16 AND #17	175

Table 2. Studies included in the review.

Author	Year of publication
Ortega-García et al <sup>1</sup>	2012
Esplugues et al <sup>2</sup>	2013
Fuentes-Leonarte et al <sup>3</sup>	2015
Mariana Fernández et al <sup>4</sup>	2015
Aurrekoetxea et al <sup>5</sup>	2016
Robinson et al <sup>6</sup>	2016
García-Villarino et al <sup>7</sup>	2021
Bermudez-Barrezueta et al <sup>8</sup>	2021
Maitre L et al <sup>9</sup>	2021
Martín-Pujol et al <sup>10</sup>	2013
Suárez-López-de-Vergara et al <sup>11</sup>	2013
Padrón et al <sup>12</sup>	2014
Padrón et al <sup>13</sup>	2016
Alicea-Alvarez et al <sup>14</sup>	2016
Arechavala et al <sup>15</sup>	2018
López et al <sup>16</sup>	2018
Arechavala et al <sup>17</sup>	2019
Contienente et al <sup>18</sup>	2019
Díez-Izquierdo et al <sup>19</sup>	2019
Lletjós et al <sup>20</sup>	2020
Henderson et al <sup>21</sup>	2020
Continente et al <sup>22</sup>	2021
Gonzalez -Barcala et al <sup>23</sup>	2017
Almendros RR et al <sup>24</sup>	2018
Hernández-Martínez et al <sup>25</sup>	2012
McBride et al <sup>26</sup>	2012
Casas et al <sup>27</sup>	2013
Ribot et al <sup>28</sup>	2014
Hernández-Martínez et al <sup>29</sup>	2017
Roigé-Castellví et al <sup>30</sup>	2020
Iniguez C et al <sup>31</sup>	2016

Ruano-Ravina et al <sup>32</sup>	2014
Torres-Durán et al <sup>33</sup>	2014
Almirall et al <sup>34</sup>	2014
Torres-Durán et al <sup>35</sup>	2015
Torres-Durán et al <sup>36</sup>	2017
González-Romero et al <sup>37</sup>	2018
Molina-Montes et al <sup>38</sup>	2020
Torres-Durán et al <sup>39</sup>	2021
Torres-Durán et al <sup>40</sup>	2015
Sunyer et al <sup>41</sup>	2012
Larrañaga et al <sup>42</sup>	2013
Ortega-García et al <sup>43</sup>	2016
Lidón-Moyano et al <sup>44</sup>	2017
Pérez-de-Arcelus et al <sup>45</sup>	2017
Román-Gálvez et al <sup>46</sup>	2018
Flexeder et al <sup>47</sup>	2019
Olivieri et al <sup>48</sup>	2019
Íñiguez et al <sup>49</sup>	2012
Ruano-Ravina et al <sup>50</sup>	2020
Villaverde-Royo et al <sup>51</sup>	2012
Clemente-Jiménez et al <sup>52</sup>	2012
Martínez Sánchez et al <sup>53</sup>	2012
Ortega-García et al <sup>54</sup>	2012
Jimenez-Muro et al <sup>55</sup>	2012
Aurrekoetxea et al <sup>56</sup>	2013
Mateos-Vílchez et al <sup>57</sup>	2014
Sureda et al <sup>58</sup>	2014
Aurrekoetxea et al <sup>59</sup>	2014
Pérez-Ríos et al <sup>60</sup>	2014
Galán et al <sup>61</sup>	2014
Sureda et al <sup>62</sup>	2015
Ballbè et al <sup>63</sup>	2015
Ballbè et al <sup>64</sup>	2015
Fernández et al <sup>65</sup>	2017
Martínez et al <sup>66</sup>	2017

Viñolas et al <sup>67</sup>	2017
Martínez Sánchez et al <sup>68</sup>	2018
Sureda et al <sup>69</sup>	2018
Fu et al <sup>70</sup>	2018
Míguez et al <sup>71</sup>	2020
Lidón-Moyano et al <sup>72</sup>	2021
Rebollar-Álvarez et al <sup>73</sup>	2021
Henderson et al <sup>75</sup>	2021
Nogueira et al <sup>74</sup>	2021

Table 3. Question wording for secondhand smoke exposure questions

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**CHILDREN**

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**Home**

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“¿Conviven fumadores con el niño?”<sup>4</sup>

["Is your child exposed to secondhand smoke from household members who smoke?"]

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“¿Qué situación describe mejor las “normas” para fumar dentro de su casa?” “Durante las 2 últimas semanas, ¿tu hijo/a ha estado expuesto pasivamente al tabaco en tu casa? ¿Y en otro lugar que no sea tu casa?”<sup>19</sup>

**["Which situation best describes the "rules" for smoking inside your home?"**

"During the last 2 weeks, has your child been exposed to secondhand smoke in your home? And somewhere else than your home?"]

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“¿Cuántas personas que viven contigo en casa fuman habitualmente en casa (sin incluir fumar en el balcón o terraza)?” “En la escuela, ¿hueles humo de tabaco en alguno de los siguientes lugares?” “¿Suele pasar tiempo en lugares cerrados, ni en casa ni en la escuela, donde alguien fuma (tan cerca de usted que puede oler el humo)?”<sup>10</sup>

["How many household members usually smoke at home (not including smoking on the balcony or terrace)?" "At school, do you smell tobacco smoke in any of the following places?" "Do you often spend time in enclosed places, neither at home nor at school, where someone smokes (so close to you that you can even smell the tobacco smoke)?"]

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“¿Fuma dentro de casa?” “¿Fuma en lugares cerrados como terrazas, balcones, galerías, jardines...?” “Además de los familiares, ¿alguien tiene fumado dentro de la casa en la última semana?” y “¿y en lugares al aire libre como terrazas y balcones?”<sup>17</sup>

["Do you smoke inside the home?" "Do you smoke in enclosed places such as terraces, balconies, galleries, gardens...?" "Apart from the household members, has anyone smoked indoors in the last week?" and "What about outdoor places such as terraces and balconies?"]

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“¿Fuma algún conviviente con el niño? ¿Cuántos cigarrillos fuma al día?”<sup>11</sup>

["Does any household member smoke in the presence of the child?? How many cigarettes do they smoke per day?"]

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“¿Fumó usted durante el embarazo? Si fumo diariamente, ¿Cuántos cigarrillos fumó?”

“¿La madre fuma? Si la madre fuma diariamente, ¿Cuántos cigarrillos fuma? ¿El padre fuma? Si el padre fuma diariamente, ¿Cuántos cigarrillos fuma?”<sup>8</sup>

["Did you smoke during pregnancy? If daily, how many cigarettes did you smoke?"

"Does the mother smoke? If the mother smokes daily, how many cigarettes does she smoke? Does the father smoke? If the father smokes daily, how many cigarettes does he smoke?"]

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### **Teaching institution**

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“¿Durante la última semana, ¿alguien ha fumado en la puerta de entrada/salida en su presencia?”<sup>16</sup>

["During the last week, has anyone smoked at the entrance/exit door in your presence?"]

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“Durante la última semana, ¿alguien ha fumado en la puerta de entrada/salida de la guardería o de la escuela del menor en su presencia?”<sup>20</sup>

["During the last week, has anyone smoked at the entrance/exit door of the child's daycare centre or school in his/her presence?"]

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### **PREGNANT WOMEN AND CHILDREN**

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#### **Home**

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“¿Suele oler el humo del tabaco en casa?” “¿Suele oler humo de tabaco en su lugar de trabajo?”<sup>25,29</sup>

["Do you usually smell tobacco smoke at home?" "Do you usually smell tobacco smoke at your workplace?"]

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### **ADULT POPULATION**

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#### **Home**

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“Durante la semana pasada, ¿cuántos cigarrillos se han fumado al día en su presencia en su casa?” (entre semana o día laborable / fin de semana) “¿Cuánto tiempo de «promedio» acostumbra a estar en ambientes con humo de tabaco fuera de casa y del trabajo?” (entre semana o día laborable / fin de semana)<sup>53</sup>

["During the last week, how many cigarettes have been smoked per day at home in your presence?" (during weekday or weekend) "How much time “on average” do you usually spend in smoke-filled environments outside your home and workplace?" (during weekday or weekend)"]

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“Actualmente, ¿cuántas personas fuman habitualmente dentro de su hogar por día?”

“Durante la última semana, ¿cuántos cigarrillos (por día) se han fumado en su presencia dentro de su hogar?”<sup>72</sup>

["Currently, how many people usually smoke inside your home on a daily basis?"

"During the last week, how many cigarettes (per day) have been smoked inside your home in your presence?"]

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“¿Actualmente vive con uno o más fumadores en casa?”<sup>34</sup>

["Do you currently live with one or more smokers at home?"]

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“La semana pasada (desde el lunes al domingo), ¿con qué frecuencia piensa que ha estado expuesto al humo de tabaco en [casa/trabajo/ocio]?”<sup>60</sup>

["During the last week (from Monday to Sunday), how often do you think you have been exposed to tobacco smoke in [home/workplace/leisure place]?"

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“¿Ha vivido o trabajado con un fumador en la misma habitación durante más de un año?”<sup>45</sup>

["Have you lived or worked with a smoker in the same room for more than a year?"]

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“Actualmente, ¿cuántas personas por día fuman habitualmente dentro de su hogar?” y

Durante la última semana, ¿cuántos cigarrillos (por día) se han fumado en su presencia dentro de su hogar?”<sup>58</sup>

["Currently, how many people per day usually smoke inside your home?" and " During the last week, how many cigarettes (per day) have been smoked inside your home in your presence?"]

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“Durante la última semana, ¿cuántas personas por día fumaron habitualmente dentro de su hogar?” “Durante la última semana, ¿cuántos cigarrillos (por día) se han fumado en su presencia en la habitación donde se instalaron los dispositivos?” “Durante la última semana, ¿cuántas horas (por día) ha estado expuesto en la habitación donde se instalaron los dispositivos?”<sup>68</sup>

["During the last week, how many people per day usually smoked inside your home?"

"During the last week, how many cigarettes (per day) were smoked in the room where the devices were installed in your presence?" "During the last week, how many hours (per day) were you exposed to secondhand smoke in the room where the devices were installed?"]

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“Actualmente, ¿cuántas personas suelen fumar dentro de su casa por día?” y “Durante la última semana, ¿cuántos cigarrillos por día se han fumado en su presencia dentro de su casa?”<sup>44</sup>

["Currently, how many people usually smoke inside your home on a daily basis?" and "During the last week, how many cigarettes per day have been smoked inside your home in your presence?"]

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"¿Cómo describiría el humo de segunda mano en este lugar de hostelería? Intensidad de exposición alta, media, baja y muy baja" "¿Qué puntuación de 0 a 10 le daría a este lugar de hostelería con respecto a la cantidad de humo de tabaco, teniendo en cuenta que 0 sería contaminación mínima y 10 contaminación máxima?"<sup>61</sup>

["How would you describe the second-hand smoke in this hospitality venue? High, medium, low, and very low intensity of exposure" "What score from 0 to 10 would you give this hospitality venue regarding the amount of tobacco smoke, bearing in mind that 0 would be minimum contamination and 10 maximum contamination?"]

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#### **Workplace - Teaching institution**

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“La semana pasada (desde el lunes al domingo), ¿con qué frecuencia piensa que ha estado expuesto al humo de tabaco en [casa/trabajo/ocio]?”<sup>60</sup>

["During the last week (from Monday to Sunday), how often do you think you have been exposed to tobacco smoke at [home/workplace/leisure place]?"]

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“¿Ha vivido o trabajado con un fumador en la misma habitación durante más de un año?”<sup>45</sup>

["Have you lived or worked with a smoker in the same room for more than a year?"]

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“¿Alguien fuma cerca de usted en el trabajo?” y “¿Cuántas horas al día cree que está expuesto al humo del tabaco en su lugar de educación?”<sup>58</sup>

["Does anyone smoke near you at workplace?" and "How many hours a day do you think you are exposed to tobacco smoke at your teaching institution?"]

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“¿La gente fuma regularmente en la sala donde trabaja?” “¿Cuántas horas al día está expuesto al humo de tabaco de otras personas?”<sup>48</sup>

["Do people usually smoke in your work room?" "How many hours a day are you exposed to secondhand tobacco smoke?"]

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“¿Alguien fuma cerca de usted en el trabajo?” “¿Cuántas horas al día cree que está expuesto al humo del tabaco en su lugar de educación?”<sup>65</sup>

["Does anyone smoke near you at workplace?" "How many hours a day do you think you are exposed to tobacco smoke at your educational institution?"]

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### **Transport**

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“Durante la última semana, ¿estuvo usted en un vehículo de transporte público mientras alguien fumaba?” y “Durante la última semana, ¿estuvo usted en un vehículo de transporte privado mientras alguien fumaba?”<sup>58</sup>

["During the last week, were you in a public vehicle where someone was smoking?" and "During the last week, were you in a private vehicle where someone was smoking?"]

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### **Leisure**

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“La semana pasada (desde el lunes al domingo), ¿con qué frecuencia piensa que ha estado expuesto al humo de tabaco en [casa/trabajo/ocio]?”<sup>60</sup>

["During the last week (from Monday to Sunday), how often do you think you have been exposed to tobacco smoke at [home/workplace/leisure place]?"]

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“En los últimos 6 meses, ¿hubo personas fumando cigarrillos regulares la última vez que visitó los siguientes sitios?” (terrazas de restaurantes y bares, paradas de transporte público, áreas al aire libre de hospitales, áreas al aire libre de escuelas, parques, parques infantiles, estadios y playas)<sup>74,75</sup>

["In the last 6 months, were there people smoking regular tobacco cigarettes the last time you visited the following places" (restaurant and bar terraces, bus stops, outdoor areas of hospitals, outdoor areas of schools, parks, playgrounds, stadiums and beaches)?"]

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### **All over**

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“¿Cuánto tiempo ha pasado en algún lugar con humo de tabaco que no sea su casa o su trabajo?”<sup>58</sup>

["How long have you spent somewhere, other than your home or workplace, exposed to secondhand tobacco smoke?"]

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“¿Ha estado expuesto regularmente al humo del tabaco en los últimos 12 meses?”<sup>47</sup>

["Have you been exposed to tobacco smoke on a regular basis in the last 12 months?"]

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