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## Loss of Weight or Loss of Life: AB 1341's Beneficial Yet Ineffective Attempt to Curb Adolescent Use of Dietary Supplements

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**Loss of Weight or Loss of Life: AB 1341’s Beneficial Yet Ineffective Attempt to Curb Adolescent Use of Dietary Supplements**

*Alec Peden\**

*Code Sections Affected*

Health and Safety Code § 110423.7 (new).  
AB 1341 (Garcia); In Committee Process

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I. INTRODUCTION

Logan Stinner was just a few days away from one of the most memorable moments of his life when the unthinkable happened.<sup>1</sup> A few days before his high school graduation, Logan Stinner tragically died from a fatal overdose of a dietary supplement intended for weight loss.<sup>2</sup> He had just taken a little over one teaspoon of a caffeine dietary supplement.<sup>3</sup> The amount of caffeine in his blood was over twenty times the amount of caffeine in a single cup of coffee.<sup>4</sup>

In a society that holds body image in high esteem, many adolescents resort to the use of dietary supplements in an *attempt* to achieve the perfect body.<sup>5</sup> Dietary supplements have the potential to cause serious, long-term health problems—including heart, kidney, and liver problems.<sup>6</sup> In a study by the Journal of Adolescent Health observing 977 cases of adolescent injuries; 40% of dietary-supplement-induced injuries ended in hospitalization, disability, or death.<sup>7</sup> A contributing factor to these injuries is that the Food and Drug Administration (“FDA”) does not review dietary supplements for safety or effectiveness.<sup>8</sup>

The lack of FDA review, combined with a lack of information, can impact communities of varying socioeconomic status.<sup>9</sup> Dietary supplement use occurs

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1. See Robyn Cherry, *Ohio Teen’s Death Puts Dangers of Caffeine Powder in Spotlight*, WIS. PUB. RADIO (July 28, 2014, 6:00 AM), <https://www.wpr.org/ohio-teens-death-puts-dangers-caffeine-powder-spotlight> (on file with the *University of the Pacific Law Review*) (stating that Logan Stiner passed away days before his high school graduation).

2. See Cherry, *supra* note 1 (detailing how a young teen overdosed by taking one teaspoon of caffeine which is roughly equivalent to 25 cups of coffee); see also Susan York Morris, *What’s the Difference Between Caffeine and Caffeine Powder?*, HEALTHLINE (Sept. 4, 2018), <https://www.healthline.com/health/caffeine-anhydrous#withdrawal> (on file with the *University of the Pacific Law Review*) (explaining that caffeine powder is used for weight loss).

3. Cherry, *supra* note 1.

4. See *id.* (clarifying that an average cup of coffee contains only 1/16 of a teaspoon of caffeine).

5. See Bryan Stierman et al., *Dietary Supplement Use in Children and Adolescents Aged ≤ 19 Years United States, 2012–2018*, 69 CDC MORBIDITY AND MORTALITY WKLY. REP. 1557, 1559 (2020), <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6943a1-H.pdf> (on file with the *University of the Pacific Law Review*) (clarifying that 29.7% of children from ages 12–19 use dietary supplements); Douglas Quenqua, *Muscular Body Image Lures Boys Into Gym, and Obsession*, N.Y. TIMES (Nov. 12, 2021), <https://www.nytimes.com/2012/11/19/health/teenage-boys-worried-about-body-image-take-risks.html> (relaying several concerns about teenage boys obsessing over body image); Erika Edwards, *Teenagers Can Be Seriously Harmed by Dietary Supplements*, NBC NEWS (June 4, 2019), <https://www.nbcnews.com/health/kids-health/teenagers-can-be-seriously-harmed-dietary-supplements-n1013696> (on file with the *University of the Pacific Law Review*) (analyzing the negative health impacts of dietary supplements on adolescents).

6. See Edwards, *supra* note 5 (showing that dietary supplements triple the risk of health issues in adolescents and explaining that prior research shows that weight loss supplements are linked to heart problems and kidney and liver damage).

7. *Id.*

8. U.S. FOOD & DRUG ADMIN., FOOD FACTS: DIETARY SUPPLEMENTS 2 (2017), <https://www.fda.gov/media/79995/download> (on file with the *University of the Pacific Law Review*).

9. See Hearing on AB 1341 Before the Assemb. Comm. on Judiciary, 2021 Leg., 2021–2022 Sess. (Cal. 2021) [hereinafter *1341 Judiciary Hearing*] (on file with the *University of the Pacific Law Review*) (highlighting those studies on dietary supplements for weight loss expose health inequities across socioeconomic status).

disproportionately among women and minority communities.<sup>10</sup> Women are two times more likely than men to use weight loss supplements, and Latinx teens are 40% more likely than white teens to use over-the-counter diet pills.<sup>11</sup> This is important because the use of dietary supplements “hurts many communities that already shoulder other health burdens.”<sup>12</sup>

Adolescents often receive misinformation about dietary supplements.<sup>13</sup> A Mayo Clinic study found that the majority of adolescents received their information about supplements from friends and health food store employees.<sup>14</sup> Adolescents are typically unaware of the potential health consequences of dietary supplements, and they will often rely on retail staff to provide information about the supplements they purchase.<sup>15</sup> Many retail stores are willing and able to supply dietary supplements to minors.<sup>16</sup> Many of these retail staff make recommendations contrary to expert medical advice.<sup>17</sup> Dietary supplement manufacturers seem to be more concerned with their potential profits than the well-being of their customers.<sup>18</sup>

Legislators identified a growing need for regulating dietary supplements because retail stores are selling them to adolescents.<sup>19</sup> Consequently, legislators introduced AB 1341 to decrease the negative impact on the youth and limit retailers’ ability to sell dietary supplements to them.<sup>20</sup> AB 1341, through its regulation of in-person sales, takes a much-needed step in regulating dietary supplements.<sup>21</sup> AB 1341 would be more effective if legislators amended it to require online digital identity verification and ID document verification.<sup>22</sup>

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10. 1341 *Judiciary Hearing*, *supra* note 9.

11. Press Release, Christina Garcia, Cal. State Assemb. (Apr. 14, 2021) (on file with the *University of the Pacific Law Review*).

12. *Id.*

13. See Maguire Herriman et al., *Dietary Supplements and Young Teens: Misinformation and Access Provided by Retailers*, 139 OFF. J. AM. ACAD. OF PEDIATRICS 1, 2 (2017), <https://pediatrics.aappublications.org/content/pediatrics/139/2/e20161257.full.pdf> (on file with the *University of the Pacific Law Review*) (explaining that teen users of creatine list friends and health food stores as their primary source of information about creatine).

14. See *id.* (referring specifically to creatine).

15. See *id.* (highlighting that health store employees often provide advice and suggestions regarding dietary supplements).

16. See *id.* at 4 (detailing that 41% of retailers told callers self-identifying as minors to buy testosterone boosters).

17. See *id.* at 5–6 (indicating that health food stores recommend supplements that cause serious health risks to young teen athletes).

18. See Press Release, Christina Garcia, *supra* note 11 (“We need to stand up to an industry that puts profit over people.”).

19. See Press Release, Christina Garcia, *supra* note 11 (illustrating how health officials are becoming increasingly alarmed about the use of diet pills).

20. 1341 *Judiciary Hearing*, *supra* note 9.

21. See 1341 *Judiciary Hearing*, *supra* note 9; see also U.S. FOOD & DRUG ADMIN., *supra* note 8, at 2 (clarifying how there are no age restrictions on dietary supplements and how the FDA fails to regulate dietary supplements).

22. See Hank Schultz, *California Bill Would Restrict Access to Weight Loss Supplements, Impose Hefty*

## II. LEGAL BACKGROUND

There is danger in the unregulated sale of dietary supplements, and this danger increases drastically when adolescents use these supplements.<sup>23</sup> Both federal and state laws attempt to tackle these unregulated sales.<sup>24</sup> Section A discusses federal legislation that regulates the sale and distribution of drugs and dietary supplements.<sup>25</sup> Section B addresses similar legislation at the California state level.<sup>26</sup>

### A. A Lack of Federal Oversight for Dietary Supplements

Several federal laws restrict the sales of drugs and dietary supplements.<sup>27</sup> The Federal Food, Drug, and Cosmetic Act (“FDCA”) gives the Food and Drug Administration (“FDA”) the power to supervise the safety of drugs and cosmetics.<sup>28</sup> Congress also passed the Federal Dietary Supplement Health and Education Act of 1994 (“DSHEA”).<sup>29</sup>

The DSHEA prohibits manufacturers of dietary supplements from marketing adulterated or misbranded products.<sup>30</sup> The DSHEA allows manufacturers to make claims regarding the potential function of supplements.<sup>31</sup> However, the DSHEA does not allow manufacturers and distributors to claim that their dietary supplements remedy illnesses.<sup>32</sup>

The federal legislature has also enacted the MedWatch program.<sup>33</sup> The MedWatch program allows individuals to report to the FDA any reactions and product quality issues with drugs and dietary supplements.<sup>34</sup> This is a reporting

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*Fines*, NUTRAINGREDIENTS-USA (Feb. 23, 2021) <https://www.nutraingredients-usa.com/Article/2021/02/23/California-bill-would-restrict-access-to-weight-loss-supplements-impose-hefty-fines> (on file with the *University of the Pacific Law Review*) (describing how AB 1341 does not regulate online stores); *See also* Hearing on AB 1341 Before the Assemb. Comm. on Health, 2021 Leg., 2021–2022 Sess. (Cal. 2021) [hereinafter *1341 Health Hearing*] (on file with the *University of the Pacific Law Review*) (clarifying how there is no federal or state regulation regarding the use of dietary supplements).

23. *See* 1341 *Judiciary Hearing*, *supra* note 9 (illustrating teen use of dietary supplements even if after explicit medical instruction); *see also* Edwards, *supra* note 5 (illustrating teen use of dietary supplements even after explicit medical instruction not to).

24. 1341 *Health Hearing*, *supra* note 22.

25. *Infra* Section II.A.

26. *Infra* Section II.B.

27. 1341 *Health Hearing*, *supra* note 22.

28. *Id.*

29. *Id.*

30. *Id.*

31. *See id.* (highlighting how manufacturers can make claims regarding potential medical uses for their dietary supplements).

32. 1341 *Health Hearing*, *supra* note 22.

33. *Id.*

34. *See id.* (articulating the process consumers can use to report issues with dietary products to the FDA).

tool for the FDA.<sup>35</sup> However, the FDA's response is reactive rather than proactive.<sup>36</sup>

Despite these regulations, there is a gap in federal legislation concerning the safety of dietary supplements.<sup>37</sup> The FDA does not have the authority to review dietary supplements for efficacy and safety.<sup>38</sup> "Although state and federal laws regulate the sale of alcohol, cigarettes, and spray paint to minors, no regulation is placed on the sale of dietary supplements to minors."<sup>39</sup> To address the lack of federal regulation, the California Legislature passed laws that create a regulatory framework for dietary supplements.<sup>40</sup>

### *B. Current California Laws on Dietary Supplements are Insufficient*

The Sherman Food, Drug, and Cosmetic Law is the California legislation that creates a regulatory oversight structure for dietary supplements.<sup>41</sup> It restricts the packaging and labeling of dietary supplements.<sup>42</sup> Under this law, certain types of dietary supplements—ephedrine group alkaloids—must have a label stating: "not for use by individuals under the age of 18 years."<sup>43</sup> However, retailers are still allowed to sell these products to all purchasers despite the labeling.<sup>44</sup>

Ephedrine group alkaloids are a specific type of chemical that physicians use to treat asthma.<sup>45</sup> However, customers also use ephedrine for its ability to help achieve weight loss.<sup>46</sup> This ephedrine warning label includes not only the potential dangers but also instructions on how to report adverse effects to the federal MedWatch program.<sup>47</sup> Although this label warns customers of the potential dangers of ephedrine alkaloids, it does not prohibit the sale of them.<sup>48</sup> The Sherman

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35. *Id.*

36. See Herriman, *supra* note 13, at 5 (highlighting that the process of removing a dangerous supplement from the market is reactionary and delayed).

37. See U.S. FOOD & DRUG ADMIN., *supra* note 8, at 2 (highlighting how the FDA has no authority to regulate dietary supplements).

38. U.S. FOOD & DRUG ADMIN., *supra* note 8, at 2.

39. Herriman, *supra* note 13, at 5.

40. 1341 *Health Hearing*, *supra* note 22.

41. See CAL. HEALTH & SAFETY CODE § 110030 (West 2021) (explaining how the bill regulating the advertisement and labelling of dietary supplements is known as the Sherman Food, Drug, and Cosmetic Act).

42. See *id.* (stating that warning labels on dietary supplements must be in a clear and conspicuous location).

43. 1341 *Health Hearing*, *supra* note 22.

44. *Id.*

45. *Ephedrine*, DRUGS.COM (Mar. 18, 2021), <https://www.drugs.com/ephedrine.html> (on file with the University of the Pacific Law Review).

46. Grant Tinsley, Ephedra (Ma Huang): *Weight Loss, Dangers, and Legal Status*, HEALTHLINE.COM (updated June 19, 2021), <https://www.healthline.com/nutrition/ephedra-sinica> (on file with the University of the Pacific Law Review).

47. See 1341 *Health Hearing*, *supra* note 22 (discussing how the Sherman Food, Drug and Cosmetic Act mandates that dietary supplement with ephedrine must conspicuously provide the phone number for the MedWatch program).

48. *Id.*

Food, Drug, and Cosmetic Law omits any language prohibiting the sale of dietary supplements to minors—only prohibiting sales if the products lack specific warning labels.<sup>49</sup>

### III. AB 1341

AB 1341 restricts retail stores from selling dietary supplements for weight loss and over-the-counter diet pills to minors without a prescription.<sup>50</sup> The bill defines dietary supplements for weight loss as a supplement consumers use to achieve weight loss.<sup>51</sup> The bill explains that dietary supplements include supplements that contain chemicals such as thermogens and lipotropics that break down body fat and suppress individuals' appetites.<sup>52</sup>

AB 1341 will also prohibit anyone other than store managers or supervisors from selling dietary supplements.<sup>53</sup> Any customer who wishes to purchase a regulated supplement must request it from the manager or other supervisor.<sup>54</sup> Consequently, AB 1341 will restrict an adolescent's direct in-store access to the dietary supplements.<sup>55</sup> This is similar to how stores keep cigarettes and spray paint in locked cases.<sup>56</sup>

AB 1341 will also require the California Department of Public Health ("CADPH") to create a warning notice for retail stores that must be posted at each purchase counter.<sup>57</sup> This notice will contain a warning about the potential health risks involved in underage consumption of dietary supplements.<sup>58</sup> This bill will require retail stores to post this notice at each purchase counter.<sup>59</sup> Finally, AB 1341 implements a one thousand dollar fine for selling supplements to minors without a prescription or for failing to post the CADPH notice.<sup>60</sup>

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49. *See id.* (noting that the Sherman Food, Drug, and Cosmetic Law does not prohibit sales to minors because it only prohibits sales of dietary supplements if they do not have specific warnings on the label).

50. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

51. *Id.*

52. *See id.* (articulating that the presence of chemicals such as thermogens, lipotropics, hormones, hormone modulators, hormone mimetics, and appetite suppressants are chemicals that this bill regulates); *See also* Erica Julson, *Can Thermogenic Supplements Help You Burn Fat?*, HEALTHLINE (July 24, 2018), <https://www.healthline.com/nutrition/thermogenics> (noting that thermogens are chemicals which help in the process of burning fat).

53. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

54. *Id.*

55. *Id.*

56. Herriman, *supra* note 13, at 5.

57. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

58. *See id.* (as amended on Apr. 28, 2021, but not enacted) (outlining that health risks posed by dietary supplements can include gastrointestinal distress, tachycardia, and hypertension).

59. 1341 *Judiciary Hearing*, *supra* note 9.

60. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted) (clarifying that under the proposed law, only the stores and not the retail workers will be liable).

#### IV. ANALYSIS

AB 1341 will address the growing issue of adolescent dietary supplement use with the goal of eliminating injury and death.<sup>61</sup> However, AB 1341 would be more effective if it also addressed the online sale of these dietary supplements to adolescents.<sup>62</sup> As the authors have currently written it, AB 1341 will target in-person retailers while leaving online retailers untouched.<sup>63</sup> Section A discusses what AB 1341 does right and where it is effective.<sup>64</sup> Section B discusses AB 1341's failure to address the growing and unregulated online market for dietary supplements.<sup>65</sup> Section C addresses how adding digital identification verification and identification document ("document ID") verification to AB 1341 will limit minors from purchasing supplements online.<sup>66</sup>

##### *A. AB 1341 Represents a Good First Step in Regulatory Legislation*

With an alarming lack of legislation restricting dietary supplements, AB 1341 takes a much-needed step in the right direction of regulating dietary supplements for adolescents.<sup>67</sup> Subsection 1 discusses how AB 1341 will remove one outlet that adolescents are currently using to purchase dietary supplements—in-person retail stores.<sup>68</sup> Subsection 2 discusses why AB 1341's mandatory notice requirements are a beneficial legislative change.<sup>69</sup> Subsection 3 discusses the efficacy of AB 1341's monetary fines.<sup>70</sup>

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61. See 1341 *Judiciary Hearing*, *supra* note 9 (seeking to reduce the risks posed to adolescent consumers by prohibiting sales to minors).

62. See Schultz, *supra* note 22 (elaborating that AB 1341 only regulates in person sales).

63. *Id.*

64. *Infra* Section IV.A

65. *Infra* Section IV.B.; see also Claire M. Reynolds, *The Analyst's Take: Online Supplement Sales Projected to Double Between 2019 and 2022*, NEW HOPE NETWORK (July 6, 2020), <https://www.newhope.com/market-data-and-analysis/analysts-take-online-supplement-sales-projected-double-between-2019-and> (on file with the *University of the Pacific Law Review*) (illustrating the projected growth of the online dietary supplement market).

66. *Infra* Section IV.C.; see also *Online Sales of Age-Restricted Products*, BUS. COMPANION (last visited July 5, 2021), <https://www.businesscompanion.info/en/quick-guides/distance-sales/online-sales-of-age-restricted-products> (on file with the *University of the Pacific Law Review*) (offering several options for regulating age restricted materials).

67. See 1341 *Health Hearing*, *supra* note 22 (noting there is a lack of regulation restricting general purchases of dietary supplements by adolescents).

68. *Infra* Subsection IV.A.1.

69. *Infra* Subsection IV.A.2.; See also Herriman, *supra* note 13, at 5 (illustrating the lack of information available to adolescents regarding dietary supplements).

70. *Infra* Subsection IV.A.3.



1. *AB 1341 Removes In-Person Access to Dietary Supplements*

AB 1341 will remove an adolescent’s ability to purchase dietary supplements from in-person retailers without a doctor’s prescription.<sup>71</sup> This is necessary because there is no existing legislation at the federal or state level which explicitly restricts an adolescent’s ability to purchase dietary supplements.<sup>72</sup> AB 1341 will be beneficial because of the health risks associated with dietary supplements and the need to restrict adolescents’ access to these supplements.<sup>73</sup> Current labeling requirements are not sufficient to limit adolescent access to dietary supplements.<sup>74</sup>

Although manufacturers often label their dietary supplements “for adult use only,” there is currently nothing to restrict retailers from selling these products to adolescents.<sup>75</sup> Despite the growing trend of internet sales, there remains an in-person market for adolescents to purchase supplements.<sup>76</sup> AB 1341 takes the necessary step to restrict in-person access to dietary supplements by adolescents that the law would otherwise leave unrestricted.<sup>77</sup> Along with the benefit of removing in-person access, AB 1341 would implement mandatory health notices alleviating misinformation some adolescents are receiving about dietary supplements.<sup>78</sup>

2. *AB 1341 Implements an Essential Fine to Combat Stores Selling Dietary Supplements to Minors*

Health-related information and disclaimers are often missing or difficult to find for dietary supplements.<sup>79</sup> AB 1341 would require retailers to conspicuously post health-related information on dietary supplements at each retail counter.<sup>80</sup> The California Department of Public Health would develop this notification for retail

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71. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

72. See 1341 *Health Hearing*, *supra* note 22 (describing a lack of legislation banning the overall sale of dietary supplements to adolescents).

73. See AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted) (outlining the health risks of using dietary supplements include the development of eating disorders, gastrointestinal distress, tachycardia, and hypertension).

74. See Herriman, *supra* note 13, at 5 (addressing the inadequacy of current labeling requirements).

75. See *id.* (clarifying that despite current warning labels, there is no restriction on the sale of dietary supplements to adolescents).

76. See *id.* (explaining that many teens purchase creatine from health food stores); *Online Vitamin & Supplement Sales in the US—Market Size 2005–2027*, IBISWORLD (Apr. 27, 2021), <https://www.ibisworld.com/industry-statistics/market-size/online-vitamin-supplement-sales-united-states/> (on file with the *University of the Pacific Law Review*) (explaining online sales have increased on average 14.8% per year between 2016 and 2021).

77. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

78. *Id.*

79. See Herriman, *supra* note 13, at 5 (“Furthermore, advertisements for supplements often fail to include required disclaimers and, when present, ‘often presented in a hard-to-find-way, whether through tiny type (on television) or a fleeting appearance.’”).

80. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

stores.<sup>81</sup> This notification will help eliminate some of the misinformation adolescents are currently receiving when they purchase dietary supplements.<sup>82</sup>

This is important because adolescents often receive inaccurate information from sales attendants at retail stores.<sup>83</sup> These notices will also highlight health risks associated with these dietary supplements.<sup>84</sup> This may further dissuade adolescents from purchasing these dietary supplements.<sup>85</sup> Finally, AB 1341 ensures retail cooperation through monetary penalties.<sup>86</sup>

### 3. AB 1341 Encourages Retail Cooperation through Monetary Penalties

One important provision of AB 1341 is a mandatory one thousand dollar fine for each violation of AB 1341.<sup>87</sup> Absent a monetary provision for retailers, there would be no incentive for retailers to comply with AB 1341.<sup>88</sup> AB 1341 provides this monetary incentive by fining retailers for noncompliance.<sup>89</sup> These fines are effective because they require stores to address dietary supplement sales to adolescents at the store level.<sup>90</sup>

AB 1341's provisions will prevent retail stores from placing the burden of enforcement on the retail clerks—the burden would be placed on individual stores.<sup>91</sup> This bill will levy fines against the stores themselves rather than individual retail associates.<sup>92</sup> This will require stores to develop implementation policies at the store level rather than the employee level.<sup>93</sup> Despite these benefits,

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81. See *id.* (requiring a customer “to request a purchase transfer or furnishing of those products directly to the manager, assistant manager, acting manager, or other supervisory personnel at the retail establishment”).

82. See Herriman, *supra* note 13, at 5 (detailing how adolescents rely on store clerks for information on dietary supplements).

83. See *id.* (showing where adolescents receive information on dietary supplements).

84. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

85. See Herriman, *supra* note 13, at 5 (noting that most of the information adolescents receive regarding dietary supplements is inaccurate).

86. See AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (describing a one thousand dollar fine for violations) (as amended on Apr. 28, 2021, but not enacted).

87. See *id.* (outlining the fines for violating provisions of AB 1341) (as amended on Apr. 28, 2021, but not enacted).

88. See Mark Steward, FCA Exec. Dir. of Enf't and Mkt. Oversight, Address at FCA Investigations and Enf't: A Guide to Managing Regul. Enf't (Feb. 12, 2020) (on file with the *University of the Pacific Law Review*) (quoting from the FCA's Decision Procedure and Penalties manual in that “[t]he principal purpose of imposing a financial penalty or issuing a public censure is to promote high standards of regulatory and/or market conduct by deterring persons who have committed breaches from committing further breaches, helping to deter other persons from committing similar breaches, and demonstrating generally the benefits of compliant behavior.”).

89. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

90. See *id.* (Cal. 2021) (explaining how AB 1341 would fine stores rather than individual retail clerks) (as amended on Apr. 28, 2021, but not enacted).

91. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

92. *Id.*

93. See AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted) (describing how this bill will not impose fines on individual sales associates).

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AB 1341 would be more effective if legislators amended the bill to address online sales through digital identity verification and document ID verification.<sup>94</sup>

### B. AB 1341 Fails to Restrict the Growing Online Sale of Dietary Supplements

AB 1341 will restrict the sale of dietary supplements only in physical retail stores.<sup>95</sup> This leaves a gap in the legislation because the bill does not include the regulation of online stores.<sup>96</sup> Subsection 1 discusses the increase of online dietary supplement sales which AB 1341 fails to address.<sup>97</sup> Subsection 2 discusses the increasing use of online shopping by adolescents.<sup>98</sup>

#### 1. Online Markets Are Seeing an Overall Increase Which AB 1341 Fails to Regulate

The growth of the online marketplace for dietary supplements has been steadily increasing.<sup>99</sup> While brick-and-mortar stores grew at a modest rate of 2.8% in 2019, online stores grew at a rate nearly ten times that amount.<sup>100</sup> The amount of growth increased even more dramatically due to the COVID-19 pandemic.<sup>101</sup> Analysts predict that online supplement sales will increase by 61.4% in the upcoming years.<sup>102</sup> Business analysts claim that many people will continue to use online retailers even after the COVID-19 pandemic subsides.<sup>103</sup> Dietary supplements are no exception to this trend.<sup>104</sup> Researchers predict that online sales will represent 19.6% of all dietary supplement sales by 2023.<sup>105</sup> This growing trend

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94. See *Online Sales of Age-Restricted Products*, *supra* note 66 (showing online age verification software is available for use in online sales) (Document ID verification is the process by which a consumer's identification is verified prior to completion of a sale); see *infra* Section IV.C (explaining digital identity verification and document ID verification).

95. See Schultz, *supra* note 22 (detailing that AB 1341 does not restrict online sales of dietary supplements to adolescents).

96. See *id.* (clarifying that AB 1341 only regulates in-person sales).

97. *Infra* Subsection IV.B.1.; see also Reynolds, *supra* note 65 (projecting how online sales will double between 2019 and 2022).

98. *Infra* IV.B.2.; see also James Melton, *U.S. Teenagers Say Amazon is Their Favorite Online Shopping Website*, *Consumer Trends Report: Shopping Habits by Generation*, DIGIT. COM. 360 (Apr. 16, 2019) <https://www.digitalcommerce360.com/2019/04/16/us-teenagers-say-amazon-is-their-favorite-online-shopping-website/> (on file with the *University of the Pacific Law Review*) (“U.S. teenagers are spending more time shopping with online-only retailers and less with department and specialty stores.”).

99. See Reynolds, *supra* note 65 (articulating how COVID-19 has greatly increased online marketplaces).

100. See *id.* (noting a 26.5% increase in online sales).

101. *Id.*

102. Reynolds, *supra* note 65.

103. See *id.* (highlighting that consumer sales will further shift to online commerce even after the end of COVID-19 due to loyalty towards online platforms).

104. See Reynolds, *supra* note 65 (projecting an increase in dietary supplement sales).

105. *Id.*

in online sales also encompasses adolescent online purchases of dietary supplements which AB 1341 fails to address.<sup>106</sup>

### *2. Adolescent are Purchasing More Dietary Supplements Online*

Researchers have become increasingly aware of the growth of e-commerce and online marketplaces for dietary supplements.<sup>107</sup> Online growth is specifically prevalent in younger adolescent communities.<sup>108</sup> When researchers compared ages, teenagers bought twice the number of products online compared to adults — spending nearly 8% on cosmetics and personal care items, including online dietary supplements.<sup>109</sup> AB 1341 fails to capture this prevalent and growing share of the dietary supplement marketplace because it fails to regulate online sales.<sup>110</sup>

## *C. Digital Identity Verification and Document ID Verification: Methods for Regulating the Online Sale of Dietary Supplements*

AB 1341 seeks to restrict the age of individuals who can purchase dietary supplements.<sup>111</sup> Adding an age verification process for those purchasing dietary supplements online would extend the protection of AB 1341 to internet sales.<sup>112</sup> Subsection 1 discusses digital identity verification and Document ID Verification and why these are the most efficient ways to regulate dietary supplements.<sup>113</sup> Subsection 2 discusses how legislators can integrate digital identity verification and Document ID Verification into AB 1341.<sup>114</sup>

### *1. Using Digital Identity Verification for Online Dietary Supplement Purchases*

Digital identity verification is a system where retailers request customer's personal information to include their name, address, and date of birth.<sup>115</sup> Retailers

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106. See *id.* (highlighting online sales growth without mentioning the age demographics considered in the study).

107. See *id.* (predicting an increase in online sales for dietary supplements).

108. Melton, *supra* note 98.

109. Deena M. Amato-McCoy, *Study: Teens Twice as Likely to Shop Online than Adults*, CHAIN STORE AGE (Oct. 16, 2017) <https://chainstoreage.com/technology/study-teens-twice-likely-shop-online-adults> (on file with the *University of the Pacific Law Review*).

110. See Schultz, *supra* note 22 (showing how AB 1341 only regulates in-person retail stores).

111. 1341 *Judiciary Hearing*, *supra* note 9.

112. See *Online Sales of Age-Restricted Products*, *supra* note 66 (describing the protections that document ID verification provides).

113. *Infra* IV.C.1.

114. *Infra* IV.C.2; see also *The Legislative Process: A Citizen's Guide to Participation*, CAL. STATE SENATE 8–10 (Apr. 2019), [https://www.senate.ca.gov/sites/senate.ca.gov/files/legislative\\_process.pdf](https://www.senate.ca.gov/sites/senate.ca.gov/files/legislative_process.pdf) (on file with the *University of the Pacific Law Review*) (describing how the legislature can amend bills at any point in the committee process).

115. *Online Age Verification: How to Prevent Sales to Minors Without Alienating Legitimate Customers*, TRULIOO (June 24, 2020), <https://www.trulioo.com/blog/online-age-verification> (on file with the *University of the Pacific Law Review*).

cannot obtain this information without customer's consent.<sup>116</sup> Online merchants would then check this information against data sources to verify accuracy.<sup>117</sup> Stores can then couple this data with ID document verification to ensure that adolescents are not purchasing dietary supplements on their website.<sup>118</sup>

The use of ID document verification would allow merchants to control the ages of those purchasing dietary supplements.<sup>119</sup> This system would require customers to photograph and send identifying documents to the merchant via an electronic database.<sup>120</sup> These two systems would provide an efficient and convenient way for merchants to verify the ages of those purchasing dietary supplements online.<sup>121</sup>

This process takes steps to ensure that adolescents are not inputting fraudulent ages and birthdates.<sup>122</sup> These steps include requiring scanned photos of identification documents and merchants cross-checking information with multiple databases.<sup>123</sup> Additionally, digital identification verification and document ID verification are simple and relatively seamless to implement making these verifications a favorable addition to AB 1341.<sup>124</sup>

Customers may have several potential concerns if AB 1341 incorporates these age verification components.<sup>125</sup> These issues include fraud, ease of access, and privacy.<sup>126</sup> One problem with many online age verification services is that adolescents can easily avoid them by using fraudulent information.<sup>127</sup> However, with both digital identification systems and ID document verification services, adolescents will be less likely to use fraudulent information because the services will compare the information with multiple databases.<sup>128</sup> Either the government or

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116. TRULIOO, *supra* note 115.

117. *Id.*

118. *See id.* (explaining the document ID verification process).

119. *See id.* (clarifying that ID document verification is a system of verifying the accuracy of scanned government identifications).

120. *Id.*

121. *See id.* (explaining how digital identify verification and ID document verification provide two different layers of fraud prevention).

122. *See* Alexis Hancock, *Digital Identification Must be Designed for Privacy and Equity*, ELEC. FRONTIER FOUND. (Aug. 31, 2020), <https://www.eff.org/deeplinks/2020/08/digital-identification-must-be-designed-privacy-and-equity-10> (on file with the *University of the Pacific Law Review*) (defining the multiple steps taken under this form of verification).

123. *Id.*

124. *See* TRULIOO, *supra* note 115 (describing how this form of age verification is simple and quick to use).

125. *See* Deepa Mahajan, *Digital ID: The Opportunities and the Risks*, MCKINSEY & CO. (Aug. 19, 2019), <https://www.mckinsey.com/industries/financial-services/our-insights/banking-matters/digital-id-the-opportunities-and-the-risks> (on file with the *University of the Pacific Law Review*) (illustrating that there are risks of privacy breaches when storing private information online).

126. *See* TRULIOO, *supra* note 115 (stating that online verification is a necessary requirement for many digital services); *see also* Hancock, *supra* note 122 (stating how poorly designed digital identification can invade personal privacy).

127. *See Online Sales of Age-Restricted Products supra* note 66 (showing how verification systems which ask for the birth date of the consumer are inadequate).

128. *See* TRULIOO, *supra* note 115 (outlining how digital identity verification takes many steps to ensure

a private organization can operate these databases.<sup>129</sup> Databases can include information from government records, mobile data records, social network files, and many other sources.<sup>130</sup>

Some retailers may be concerned that implementing these changes would be difficult for their customers, resulting in loss of sales.<sup>131</sup> However, the proposed adjustments are easy for consumers and would not present a burden to online shoppers.<sup>132</sup> The steps would allow retailers to restrict the ages of those purchasing online supplements without reducing customer convenience.<sup>133</sup> These slight changes do not impede with ease of access and help mitigate fraud, but there are other concerns beyond ease of access.<sup>134</sup>

Some consumers may be concerned about the potential privacy issues related to the use of personal information.<sup>135</sup> However, there are methods that companies can implement to protect user privacy while still implementing an age verification system for AB 1341.<sup>136</sup> One such method is implementing a “zero-knowledge proof.”<sup>137</sup> A zero-knowledge proof is simply verifying the accuracy of data without revealing the data.<sup>138</sup> Given the efficiency and ease of these systems, AB 1341 should be amended to include digital identification services and ID document verification services.<sup>139</sup>

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that the detection of fraudulent information).

129. See Matt Ross, *Finding Your Identity: Solving the Digital ID Verification Challenge*, GLOB. GOV'T F. (Apr. 3, 2020), <https://www.globalgovernmentforum.com/finding-your-identity-solving-the-digital-id-verification-challenge/> (on file with the *University of the Pacific Law Review*) (elaborating on different databases for digital identification verification that multiple governments have implemented).

130. See *Coverage Makes IDMERIT's Identity Verification Services Standout*, IDMERIT, <https://www.idmerit.com/identity-verification/> (on file with the *University of the Pacific Law Review*) (depicting how one digital identification verification service determines the validity of user-inputted information).

131. See TRULIOO, *supra* note 115 (explaining how digital identity verification and ID document verification provide a quick and easy service for consumers).

132. See *id.* (depicting how the two processes can allow shoppers to seamlessly complete their transactions).

133. See *id.* (explaining how these steps will not cause an additional burden on consumers).

134. See Hancock, *supra* note 122 (describing how privacy and equity must be a primary concern when developing age verification systems).

135. See Mahajan, *supra* note 125 (highlighting concerns about privacy leaks with online storage of personal information).

136. See *Can Businesses Avoid Data Collection with Zero-Knowledge Proof?*, SPHERE IDENTITY (Aug. 14, 2018), <https://medium.com/sphere-identity/can-businesses-avoid-data-collection-with-zero-knowledge-proof-40278a28e3db> (on file with the *University of the Pacific Law Review*) (showing how companies can use a zero-knowledge proof to mitigate data breaches for online age verification services).

137. See *id.* (describing how a zero-knowledge proof allows the transfer of information between two parties without any party knowing the specifics of the information).

138. See *id.* (describing how a zero-knowledge proof allows the transfer of information between two parties without any party knowing the specifics of the information).

139. See TRULIOO, *supra* note 115 (describing the ease and simplicity of digital identification verification and ID document verification services).

2. How to Integrate Digital Identification Services and ID Document Identification Services into AB 1341

Legislators should incorporate digital identification and document ID services into AB 1341 through a legislative amendment.<sup>140</sup> Legislators can propose an amendment either on the Assembly Floor or through a committee.<sup>141</sup> As of December 2021, AB 1341 is in the committee process, and legislators can still amend it.<sup>142</sup> Amending AB 1341 to include digital identity verification and ID document verification would expand AB 1341's regulatory power over the growing online marketplace.<sup>143</sup>

Overall, AB 1341 will be effective in eliminating one potential avenue for adolescents to purchase dietary supplements.<sup>144</sup> It is efficient because it creates a monetary incentive for stores to implement its policies, and it requires stores to post notices regarding the dangers of dietary supplements.<sup>145</sup> However, AB 1341 fails to regulate the growing online marketplace for dietary supplements.<sup>146</sup> If AB 1341 included mandatory digital identification verification services and ID document verification services, the bill could be more effective at controlling adolescent access to dietary supplements.<sup>147</sup> These services are both easy to implement for the stores and convenient for consumers to use.<sup>148</sup> These services can mitigate the potential risk of privacy breaches.<sup>149</sup> Since AB 1341 is still in the legislative process, a legislative amendment will likely be the best way to implement these changes.<sup>150</sup> Bills can be amended at any time throughout the legislative session.<sup>151</sup> If the Legislature integrates digital identity verification and ID document verification for online sales into AB 1341 via an amendment, legislators can reduce the harmful impacts of dietary supplements.<sup>152</sup>

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140. CAL. STATE SENATE, *supra* note 114.

141. *Id.*

142. Current Bill Status of AB 1341, CAL. LEGIS INFO., [https://leginfo.legislature.ca.gov/faces/billStatusClient.xhtml?bill\\_id=202120220AB1341](https://leginfo.legislature.ca.gov/faces/billStatusClient.xhtml?bill_id=202120220AB1341) (last visited Aug. 5, 2021) (on file with the *University of the Pacific Law Review*).

143. *See* Schultz, *supra* note 22 (elaborating how AB 1341 fails to regulate online stores).

144. *See* AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted) (describing how AB 1341 eliminates in-store access to dietary supplements).

145. *See id.* (defining how this bill would impose a monetary fine against stores for each violation of the bill).

146. *See* Schultz, *supra* note 22 (highlighting how AB 1341 regulates in-person stores but does not regulate online sales).

147. *See* TRULIOO, *supra* note 115 (detailing how these services are an easy and effective way to regulate online sales to minors).

148. *See id.* (illustrating how these services are easy for the customers to use and for the stores to implement).

149. *See* SPHERE IDENTITY, *supra* note 136 (showing how companies can use a zero-knowledge proof to mitigate data breaches).

150. CAL. STATE SENATE, *supra* note 114.

151. *Id.*

152. *See* TRULIOO, *supra* note 115 (noting how digital identity verification and ID document verification

V. CONCLUSION

Adolescents are increasingly using dietary supplements to achieve the perfect body.<sup>153</sup> Unfortunately, several have seen the same fate as Logan Stinner who tragically died from a dietary supplement overdose.<sup>154</sup> California legislators introduced AB 1341 with the purpose of limiting the harmful impact of over-the-counter diet pills.<sup>155</sup> Nationally, legislators have implemented both state and federal laws that provide a foundation for AB 1341.<sup>156</sup> These include the Sherman Food, Drug, and Cosmetic Act; the federal DSHEA; and the federal MedWatch Program.<sup>157</sup> However, legislators have failed to enact effective regulations against the sale of dietary supplements to adolescents.<sup>158</sup> AB 1341 will prohibit adolescents from purchasing dietary supplements in retail stores.<sup>159</sup>

Although AB 1341 represents a step in the right direction, it fails to regulate online sales of dietary supplements.<sup>160</sup> With the growing online market for dietary supplements, legislators should regulate the online market for dietary supplements by requiring stores to implement a digital identity verification system with an ID document verification service.<sup>161</sup> The Legislature can implement these changes through a legislative amendment, because AB 1341 is still in the legislative process.<sup>162</sup> If the Legislature enacts AB 1341 with age verification for online sales, it may avert another tragedy like the premature and preventable death of Logan Stinner.<sup>163</sup>

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are an efficient means to verify the age of online customers without inconveniencing legitimate shoppers); see also Reynolds, *supra* note 65 (stating researchers predict an increase in the online sales of dietary supplements).

153. See Stierman, *supra* note 5 (showing an increasing number of adolescents have claimed to use dietary supplements).

154. See Daniel S. Budnitz et al., *Emergency Department Visits for Adverse Events Related to Dietary Supplements*, 1531 NEW ENG. J. OF MEDICINE 1531, 1534 (2015), <https://www.nejm.org/doi/pdf/10.1056/NEJMsa1504267?articleTools=true> (on file with the *University of the Pacific Law Review*) (detailing how there are a large predicted number of hospitalizations and serious injuries related to the use of dietary supplements between 2004–2013).

155. 1341 *Health Hearing*, *supra* note 22.

156. *Id.*

157. See *id.* (noting federal and state legislation concerning dietary supplements).

158. See U.S. FOOD & DRUG ADMIN., *supra* note 8, at 2 (expounding how the FDA does not have the regulatory authority to test the safety of dietary supplements).

159. AB 1341, 2021 Leg., 2021–2022 Sess. (Cal. 2021) (as amended on Apr. 28, 2021, but not enacted).

160. Schultz, *supra* note 22.

161. See TRULIOO, *supra* note 115 (addressing the benefits of digital identification verification systems).

162. CAL. STATE SENATE, *supra* note 114.

163. Cherry, *supra* note 1.